THE EFFECT OF SEASONED EQUITY OFFERINGS ON STOCK PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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D61/72915/2012

A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

NOVEMBER, 2015
DECLARATION

This research project report is my original work and has not been presented in any other University.

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This research project report has been submitted for examination with my approval as University Supervisor.

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Supervisor: Zipporah Onsomu
ACKNOWLEDGEMENT

I thank God for giving me the gift of life, wisdom and courage and for guiding me throughout my life for without Him I would not have come this far.

Secondly, special thanks go to my supervisor Zipporah Onsomu for providing unlimited invaluable and most sincere guidance throughout the study. Her patience, professionalism, command and knowledge of the subject matter enabled me to shape this research project to the product that it is now.

Thirdly, I also thank my family for letting me steal their valuable time to work on this project. It is my hope that their sacrifice has finally paid off.

Finally, I owe my gratitude to a number of people especially in the University fraternity who in one way or another contributed towards completion of this project especially my fellow colleagues at work and students.
DEDICATION

This project is dedicated to my dear family for their invaluable support and encouragement during my entire academic period and towards the success of this project.
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ABSTRACT

The objective of this study was to establish the effect of seasoned equity offerings on stock performance of commercial banks in Kenya. The study used a descriptive research design. A census targeting the commercial banks that made seasoned equity offering between 2008 and 2014 was conducted. The study used secondary data obtained from the Nairobi Securities Exchange. Data was collected for the eight commercial banks that conducted seasoned equity offering on the NSE. Event study methodology was used to evaluate the effect of seasoning on stock performance. Simple linear regression was used to develop return models over the pre-announcement period. Abnormal returns were calculated as the difference between the actual returns and estimated returns over the post announcement period of forty days. The study found that the cumulative average abnormal returns were negative. The average abnormal return was also negative. The result of t-test indicated that the average abnormal return were not statistically different from zero. It was concluded that equity seasoning does not have a significant effect on commercial banks stock performance in Kenya. The study recommended that investors in banking stocks would not earn abnormal returns following seasoning by commercial banks. Further research may investigate the effect of seasoning on stock performance by considering companies that made no other announcement simultaneous to seasoning. They may also evaluate the effect of seasoning on volatility of returns.
LIST OF ABBREVIATIONS

EMH: Efficient Market Hypothesis

IPO: Initial Public Offering

NPV: Net Present Value

NSE: Nairobi Securities Exchange

ROA: Return on Assets

SEO: Seasoned Equity Offerings
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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Abraham and Harrington (2011) defines seasoned equity offerings (SEOs), as the issue of stock by a firm that has already completed a primary issue. They are a means to raise funds through the sale of stock rather than the issuance of additional debt. Ross et al, (2003) defines seasoned equity offering (SEO) as a new equity issue of securities by a company that has previously issued securities to the public.

The efficient market hypothesis states that at any given time and in a liquid market, security prices fully reflect all available information. In the Efficient Market Hypothesis, past stock prices should have no predictive power of future prices. An efficient market is one in whose prices fully reflect available information. The EMH exists in various degrees: weak, semi-strong and strong, which addresses the inclusion of non-public information in market prices. This theory contends that since markets are efficient and current prices reflect all information, attempts to outperform the market are essentially a game of chance rather than one of skill (Fama, 1970).

According to the Central Bank of Kenya Data, there are 46 commercial banks operating in Kenya. 11 of the commercial bank are listed in the Nairobi Securities exchange while the remaining 53 are trades over the counter. Onuonga (2014) notes that banking sector is an integral part of the economy of Kenya. The sector is one of its major drivers. The banking sector is among the sectors under the financial services that is expected to contribute greatly to the realization of Kenya’s Vision 2030 (Republic of Kenya, 2007). Nyamora (2012) found that profitability, corporate tax,
growth, asset structure and bank size are important variables that influence banks’ capital structure Kenya. As a result of the financial crisis of the 2007-2009, stringent regulatory measures, such as higher capital requirements have become more prominent as a move towards having stable and more competitive banking sector (Financial Service Authority, 2009). As a result, majority of banks are raising capital using seasoned equity issues. Ross et al, (2003) notes that there is complex interplay of factors that determine the SEO choice decision, particularly the availability of debt, current cash flow, and investment opportunities so that any analysis must consider the simultaneous effect of all three groups of variables.

1.1.1 Seasoned Public Offering
According to Ross, Westerfield and Jordan (2003), a seasoned equity offering (SEO) is a new equity issue of securities by a company that has previously issued securities to the public. A different view of Seasoned equity offerings is on the movement of funds, for example, Kim et al (2014) views the secondary offerings in contrast (to IPO), as sales of shares owned by corporate insiders and block-holders, so the proceeds do not go to the firm.

Jiang et al, (2013) notes that literature suggests that firms issue SEOs for precautionary reasons. That is, firms issue equity to save cash. Abraham and Harrington (2011) notes that from capital structure perspective, a firm can raise long-term funds by using internal financing if it has the funds available. Given the likelihood that internal funds may be insufficient to meet long-term needs for new product development, expansion of facilities, or research and development investment, all of which require significant amounts of capital, raising funds, from external sources
becomes the only viable alternative.

Seasoned equity offerings comes in various forms. Balachandran (2008) notes that SEO captures four main types of offerings; rights offerings, open offers, open offers with private placements and standalone placements. The study adds that SEO variants provide a wide-range of underlying characteristics that credibly elicit alternative managerial behavior, thus creating a potent framework upon which our key hypotheses are formulated.

1.1.2 Stock Performance
Stock performance is the measurement of a stock's ability to increase or decrease the wealth of its shareholders in a given period of time (Africa Statistical Journal, 2014). Ibrahim and Agbaje (2013) notes that the prices of stock determine how effective and efficient the stock market allocates shares and equities based on preference and availability of market information.

According to Fama (1970), stock prices follow the random walk hypothesis which is financial theory stating that stock market prices evolve according to a random walk and thus cannot be predicted. The theory is consistent with the efficient-market hypothesis. However, other writers have observed stock price drivers. Warner and Watts (1987) observes that top management and stock prices have an inverse relationship, such that no average stock price reaction is detected on announcement of a top management change. Barker and Wurgler (2006) found that against the popular belief that there is indeed a positive correlation between stock performance and peoples sentiments. Performance is measured by its fluctuation in price. When the stock price increases, the stock shows good performance. Conversely, a decrease in
price is a poor performance. There is a wide range of parameters that affect the stock price.

Stock market returns are calculated as percentage change in a market index based on the previous closing index. There are two methods that are usually used to calculate returns; simple returns and continuously compounded (logarithm) returns (Lee, 1998). Ibrahim and Agbaje (2013) notes that increase or decrease in price of stock create uncertainty for the investors and in turn affect the demand and supply of stocks. Therefore, general increase in price level may affect people’s potential investor's investment decision which has a negative impact on the total returns on stocks in the economy at large.

1.1.3 Seasoned Equity Offering and Stock Performance
Seasoned equity offerings issue affects company’s stock performance either positively or negatively. Myers and Majluf (1984) found negative price reaction to issuance of Secondary equity issuance in that managers acting on behalf of existing shareholders have private information about the firm. Loughran and Ritter (1997) documents poor earnings performance following equity offerings. Hansen and Crutchley (1990) found a negative relationship between financial performance as measured by ROA and SEOs in their sample of 109 issuing firms during 1975-1982. Loughran and Ritter (1997) found a decline in return after the offerings. Syokau (2014) found that right issue can decline EPS.

The reason for the negative effect that seasoned equity offerings has on stock performance is because managers prefer to issue equity when their shares are overpriced, for example, when they have private information indicating that cash flows are going to fall in the future. The information asymmetry results to adverse-selection hypotheses based on information asymmetries between firm insiders and
outside investors (Myers and Majluf, 1984; Krasker, 1986; and Miller and Rock, 1985). Two of the most influential theories that explain the negative stock price reaction to SEO announcements are those of Myers and Majluf (1984) and Jensen's (1986) free cash flow theory where managers act on behalf of existing shareholders have private information about the firm.

However, Allen and Soucik (2009), Friday et al (2000) demonstrate that following the period of issuance, issuing firms turn around in their stock performance and in fact outperform their corresponding benchmarks, sometimes more than making up for the initial losses. Mikkelson and Partch (1986).

1.1.4 Commercial Banks in Kenya
According to Ongore and Kusa (2013), in Kenya, the commercial banks dominate the financial sector and analysis of commercial banks has been of great interest to academic research since the Great Depression Intern the 1940’s. In a country where the financial sector is dominated by commercial banks, any failure in the sector has an immense implication on the economic growth of the country. According to the Central Bank of Kenya Data, there are 46 commercial banks operating in Kenya. 11 of the commercial bank are listed in the Nairobi Securities exchange while the remaining 32 trades over the counter. During the period 2008-2011, the Kenyan banking system showed resilience, which was attributed in part to the low financial integration in the global financial market and the intensive supervision and sound regulatory reforms (Bank Supervision Annual Report 2009, 2010; IMF, 2009).

The banking environment in Kenya has, for the past decade, undergone many regulatory and financial reforms. These reforms have brought about many structural changes in the sector and have also encouraged foreign banks to enter and expand
their operations in the country (Kamau, 2009). Gatonye (1995) identifies three broad roles of banking industry in Kenya’s economy as: financial intermediation between savers and borrowers that entails mobilization of resources from entities with surplus funds and channeling them to the deficit areas.

According to Kenya Bankers Association working paper series 2013, Since the introduction of Structural Adjustment Programs (SAP) in the late 1980’s, the banking sector worldwide has experienced major transformations in its operating environment. Countries have eased controls on interest rates, reduced government involvement and opened their doors to international banks. In Kenya, the banking sector plays a dominant role in the financial sector, particularly with respect to mobilization of savings and provision of credit. According to Central Bank of Kenya, banking sector are well capitalized and on average, most banks meet the four minimum capital requirements, for example the minimum core capital required increased from an average of KES 3.5 billion in 2008 to an average of KES 5.6 billion in 2011, against a statutory minimum requirement of KES 250 million in 2008 to KES 700 million in 2011. However, these amounts and ratios varies substantially among the large, medium and small banks.

1.2 Research problem
Issuance of SEOs by firms generally aims at strengthening capital structure and to finance investments opportunities that require large funds which cannot be financed internally such as expansions or acquisitions (Myers1984). Announcements of SEOs should therefore come as good news to investors since it would be seen that the firm has identified value adding projects to invest in. no under or overpricing (Fama, 1970).
Kithinji et al, (2014) notes that Kenyan stock market has recently witnessed listed firms actively raising capital through seasoned equity offers by way of rights offerings instead of using debt which is more costly due to interest factors and adverse selection problems involved. Banks such as DTB and KCB have recorded oversubscriptions of 17.8% and 14.6% respectively. Financial performance of any firm is largely driven by the ability of managers to utilize assets efficiently and invest in value adding activities while maintaining sound liquidity levels. The aspect of whether proceeds generated by these equity offerings are used solely to improve shareholder wealth and improve financial performance of firms has received little attention in Nairobi Securities Exchange studies.

Empirical studies by Njoroge (2003) studied the impact of rights issue announcements on share prices of companies listed at the NSE. The study was based on a sample of six rights issues made in the period 1996-2002. Using the market model, the results documented a negative abnormal return prior to the announcement day of the rights issue. Gatundu (2007) studied the effect of announcement of secondary equity offerings and the study showed that announcement did not affect the market significantly. Mwangangi (2011) conducted a study on the market reaction to SEO announcements and the effect of size of issue size on stock prices. Using event study methodology the study concluded that the offering did not experience a significant reaction to the announcements and that the size of the offering did not have any significant impact on stock returns. Loughran and Ritter (1996) found that operating performance declines subsequent to the SEO. Eckbo and Marsulis, (1992), SEO announcements are followed by a share price drop. McLaughlin et al (1996) found that SEO firms experience a sharp, statistically significant decrease in operating performance following the SEO.
From the reviewed studies, stock performance of commercial banks in Kenya conducting SEOs has not received adequate attention. Majority of the studies in Kenya has only addressed the effect of SEO on financial performance of companies listed in the NSE. For example, Mwangangi (2011), Gatundu (2007), Njoroge (2003), Kithinji et al (2014), Kiama (2013) while Ongore and Kusa (2013) studied determinants of financial performance of commercial banks in Kenya. This study sought to address this gap by conducting a study on the effect of seasoned equity offering on stock performance of commercial banks in Kenya. In particular the study sought to answer the following research questions: What is the effect of seasoned equity offerings on stock performance of commercial banks operating in Kenya?

1.3 Objective of the Study
To establish the effect of seasoned equity offering on stock performance for commercial banks in Kenya.

1.4 Value of the study
The study will enrich the body of knowledge available for practitioners in the capital market Industry. The study will also benefit management of firms in planning how and when to issue seasoned equity so as to invest in projects that will improve shareholder wealth through stock performance. Shareholders will be aided to understand exactly how financing decision affects their wealth in short run and long run. Since the SEO decision affects the most critical of the firms objective, that is, wealth maximization for shareholders. The decision to finance through the SEO will attract more scrutiny, more reviews, more analysis and all will help achieve more informed decision.

The market will benefit by understanding the principal of causation and effect, the process of choice of financing decision will ultimately be more enhanced, informed and inclusive in scope. The regulator will gain information that can be used to protect
the interest of investors. Scholars and academicians will have an added body of information to the existing knowledge on SEOs. Scholars will learn more on the effects of seasoned equity issuance and they will be equipped with current knowledge which will open up future areas of research on the subject. It will also add to the richness in documentation in this field and build up on the existing theory.

Finally, the study will be used amongst other by statistical bureaus in determining the net effect of issuing Seasoned Equity Offerings on the profitability of the issuing banks, the effect of such issues on the capital structure and also the effect of the issuance on the both short term, medium term and long term performance of the issuing. The study will be compared with identical studies carried in other economic climates especially in developed and developing world to determine whether the seasoned equity issuance share similarities across the different development spheres or whether each economies affects their business in isolation.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction
This chapter covered the theoretical review, the empirical studies and a summary of literature.

2.2 Theoretical Review
The theories considered in this section includes; Efficient Market hypothesis Theory (Fama, 1970), Pecking Order Theory (Myers and Majluf, 1984) and Market Timing Hypothesis (Wurgler and Baker, 2002).

2.2.1 Efficient Market hypothesis Theory
Fama (1970) outlines through the efficient markets theory (EMT) of financial economics states that the price of an asset reflects all relevant information that is available about the intrinsic value of the asset. Although the EMT applies to all types of financial securities, discussions of the theory usually focus on one kind of security, namely, shares of common stock in a company.

Fama (1970) synthesized the existing work and contributed to the focus and direction of future research by defining three different forms of market efficiency: weak form, semistrong form, and strong form. In a weak-form efficient market, future returns cannot be predicted from past returns or any other market-based indicator, such as trading volume or the ratio of puts (options to sell stocks) to calls (options to buy stocks). In a semistrong efficient market, prices reflect all publicly available information about economic fundamentals, including the public market data (in weak form), as well as the content of financial reports, economic forecasts, company announcements, and so on. The distinction between the weak and semi strong forms is
that it is virtually costless to observe public market data, whereas a high level of fundamental analysis is required if prices are to fully reflect all publicly available information, such as public accounting data, public information regarding competition, and industry-specific knowledge. In strong form, the highest level of market efficiency, prices reflect all public and private information. This extreme form serves mainly as a limiting case because it would require even the private information of corporate officers about their own firm to be already captured in stock prices. Fama (1991) notes, market efficiency is a continuum. The lower the transaction costs in a market, including the costs of obtaining information and trading, the more efficient the market. In the United States, reliable information about firms is relatively cheap to obtain (partly due to mandated disclosure and partly due to technology of information provision) and trading securities is cheap. However, other scholars do not always share the same line of thought. Grossman and Stiglitz (1980) notes that pricing irregularities and even predictable patterns in stock returns can appear over time and even persist for short periods. Moreover, the market cannot be perfectly efficient, or there would be no incentive for professionals to uncover the information that gets so quickly in market prices. Similar views were also made by Berk (2007) in which he noted that the widely held interpretation that the hypothesis implies that returns should be unpredictable is highly misleading if returns are related to risk, and risk is persistent, then actual returns will be predictable.

2.2.2 Pecking Order Theory
Pecking Order Theory (POT) theory was proposed by Myers and Majluf (1984). The theory talks about the hierarchy when company wants to decide capital structure. This theory mentions about the pecking order when financing the new investments. The internal equity is first choice, then raising debt and finally get the external equity such
us issues stock. The theory is based on the premise that internal equity is costless and
debt offer the tax shield bracket while the external equity dilutes ownership. First, a
company should use their internal funds to finance a new investment, after that is the
low-debt such as banks loans and finally is the equity. This theory is applicable for the
small firms as well as the larger firms.

In the small firm, there are a lot of adverse selection problem and have the high
information cost. In addition, Pettit and Singer (1985) notes that since the quality of
small firms financial statements varies and are not audited. Therefore, it cannot build
the trust from the banker and investors. So that firm prefers to use their own fund to
make capital structure. Pecking order theory explained why the most large profitable
firms generally borrow less not only they have low debt ratios but also they do not
need outside money. Less profitable firms borrow debt because they do not have
enough internal funds for their new investment and debt financing is preferred to
equity financing under the pecking order theory. Moreover, this theory showed the
negative relationship between profitability and financial leverage within the industry.
Assume the firms generally invest to keep up with the growth of their industries. Then
investment rate will be same within an industry. Given fixed dividend policy, the least
profitable firms will have less internal funds and must borrow more.

However, Myers (1984) critically stated that pecking order theory cannot explain
everything. There are lots of empirical studies to explain his claim, particular in 2003
Frank and Goyal conducted a study about listed American firms over the 1971 to
1988 period. According to their empirical results, firm’s internal financing, on
average, was not sufficient to cover their requirements. Likewise, Chen (1987) noted
that profitability and growth opportunity are important variables that influence company’s capital structure. Profitability negatively affects to capital structure that firms prefer internal financing from external. Firms use internal capital to finance new projects. When the internal capital is insufficient, firms issue debt. Equity is issued as a last resort.

### 2.2.3 Market Timing Hypothesis

Wurgler and Baker (2002) proposed the market timing hypothesis. Earlier work on the same theory was by Loughran and Ritter (1995). According to the pecking order view (in very broad terms) firms issue equity only as a last resort when they have exhausted all other forms of financing. According to the market timing view firms issue equity when the cost of equity capital is low. Underlying the differences between these two views are two fundamentally different conceptions of investor rationality.

Under the market timing view, investors are generally assumed to have behavioral biases such as overconfidence, which may lead them to sometimes overvalue stocks. Moreover, behaviorally biased investors are assumed to not fully undo a temporary overvaluation when they see firms issue more stock. As a result, firms may be able to take advantage of investors' behavioral biases and benefit from timing their equity issues in periods when investors are particularly favorably disposed towards their firm.

This theory shows the possibilities that happen when a firm issues new stock. For example when the stock price is overvalued and its cost is irrationally low, if the firm ensures that investors are interested in its future profit, volume of shares will on stock
trading will change. In addition, this theory has been suggested as an alternative to the famous theories such as trade off theory and pecking order theory and tries to find optimum capital structure for the firm. The market timing hypothesis notes that it was the first order determinant of the capital structure of a corporation represents the proportional miss pricing of the debt and equity portions when the firm requires funds for investments. According to the market timing theory, in case of low cost of equity, firms prefer equity over debt. The firms and corporations must choose the most suitable form of financing at the time of investment.

2.3 Determinants of Stock Performance of Commercial Banks in Kenya

Warner et al, (1987) relates stock performance to management change. Although top managers contribution to firm value is not directly observable, stock returns are a potential source of information. In an efficient market, however, stock return is a noisy measure of management performance. The return reflects only the unexpected component of top management performance and is influenced by a variety of exogenous factors. Given the noise in stock returns, alternative sources of information, such as earnings reports, could provide measures more closely associated with management performance.

Kithinji et al, (2014) observes that company’s share performance and trading volume is also influenced by change in interest rates, Inflation rates, government policy and currency fluctuation. Whenever interest rates are low, the borrowing power of investors is increased and this consequently enables them to borrow and purchase the rights issue thereby leading to an improved share performance and high trading volume. Malhotra and Tandon (2013) notes that stock market is all about dynamics
and that is why investors and fund managers have been time and again confronted with the problem of accurately predicting the stock prices so as to earn decent returns.

### 2.4 Empirical Review

Loughran and Ritter (1997) documented the poor post-issue operating performance of firms conducting 1,338 seasoned equity offerings during 1979-1989. Using a sample of 1,338 SEOs from 1979-1989, the study showed that the median profit margin for issuing firms decreases from 5.4 percent in the fiscal year of the offering to 2.5 percent four years later. The median return on assets (ROA) went down from 6.3 percent to 3.2 percent. The median operating income to assets ratio decreased from 15.8 percent to 12.1 percent. These declines are much larger, in both an economic and a statistical sense, than the corresponding declines for non-issuing firms matched by asset size, industry, and operating performance.

Slovin, Shushka and Lai (2000) studied wealth effects around the announcement of rights issues and placing's by UK firms over the period 1986-1994. Using a sample of 200 insured rights, 20 uninsured right issues and 76 placing's, they found an average 2-day excess return of -2.9% around announcements for insured rights and -5% for uninsured rights. In contrast, they found positive average returns for placing's. They also found that placing's can be used as an alternative method by firms seeking other financing needs.

Masulis et al. (1999) studied the effect of announcement of secondary equity offerings on stock prices of firms listed at the NSE. The study conducted an event study with a sample based on 10 companies that had made equity offerings in the period 1996-
2006. The results of the study showed that abnormal returns were insignificant and hence the announcement did not shock the market significantly.

Olesaaya (2010) did a research on the effects of rights issue on stock returns and the study investigated companies listed at the NSE. Olesaaya used event study methodology in his study. He used market model which is a statistical model that relates the returns of any given security to the return of the market portfolio to measure and analyze the abnormal returns. The study assumed that the abnormal returns reflect the stock markets reaction to the announcement of rights issue. The study done showed negative abnormal returns prior to announcement of rights issue, positive abnormal returns during the announcement and negative results thereafter.

Mwangangi (2011) sought to answer whether the market reacts to announcements of SEOs and whether size of the issue influences the stock prices. Using event study methodology the study analyzed a sample of 23 companies listed at the NSE that had issued SEOs in the period 2001-2010. The study concluded that the offering did not experience a significant reaction to the announcements and that the size of the offering did not have any significant impact on stock returns.

Kithinji et al. (2014) on a study of all firms in the NSE, aimed at evaluating the effect of rights issue announcement on companies share performance. The research intended to evaluate the effects of rights issue on firms' subsequent trading prior to and after the issue. All the firms listed at the Nairobi Securities Exchange and were part of the NSE 20 share index were considered. In addition to this, all the firms that performed rights issue between 2007 and 2012 were included in the target population whether or
not they were part of the NSE 20 share index. The study concluded that rights issue announcements have no significant effect on investor's reaction and that there is a relationship between rights issue and company's share performance.

### 2.5 Summary of Literature Review

The empirical decisions highlighted above shows mixed results as far as stock performance of SEO issuing firms is concerned. Kithinji et al. (2014) study showed little correlation, Loughran and Ritter (1997) and McLaughlin et al. (1998) SEO firms tend to perform poorly. Gatundu (2007) study showed no significant effect on financial performance. Loughran and Ritter (1997) found a decline in return after the offerings. However, Allen and Soucik (2009) studied showed issuing firms outperform other. Howton and Howton (2000) study found a positive relationship between stock performance and SEOs

While some studies have showed no change in earnings for seasoned issuers, others presented either a positive or negative change in financial performance. To the best of my knowledge, the exact impact of seasoned equity offerings on the stock performance of commercial banks has not been researched. This study therefore intends to fill this gap by establishing the relationship between SEOs and stock performance of commercial banks in Kenya.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction.
This chapter focused on the methodology that was employed in the research project, the research design, population studied, sampling technique used, nature of the data collected, instruments used and data analysis method.

3.2 Research Design
The study used descriptive research design. Descriptive research determines and reports the way things are and also helps a researcher to describe a phenomenon in terms of attitude, values and characteristics (Mugenda and Mugenda, 2003).

3.3 Population
The population of the study comprised of all 43 commercial banks operating in Kenya from 2008 to 2014. A census of all the listed commercial banks in the NSE was done and a total of 8 Commercial Banks that had performed Seasoned Equity Offering qualified for data analysis.

3.4 Data collection
The study used secondary data collected from Central Bank of Kenya and Nairobi Securities Exchange. Secondary data was obtained from stock prices, market index, and announcement dates. A data collection sheet was used to capture information on banks that announced their rights during the period, date of announcement, market index, daily closing share prices and traded volumes over an event window period. This is because the study aimed at examining the effect of seasoned equity offerings announcement on stock return prior and posts the announcement date.
3.5 **Data analysis**
The research was quantitative in nature hence descriptive and inferential statistics were used. This study was concerned with how market behaves and reacts around the seasoned offering announcement period. The study distinguished between the pre-announcement and post announcement period. In each of the banks selected, the stock returns to for each of the trading periods was calculated. For pre-announcement period the daily stock returns were analyzed using the simple linear regression model to determine the relationship between the daily rates of returns to the stock and the daily rate of market returns. Once the data was collected and checked for completeness it was analyzed. The following formulae was used:

\[ R_t = a + bR_m \]

- \( R_t \) = Rate of return to the stock for each day
- \( a \) = intercept of regression
- \( b \) = slope of the regression line
- \( R_m \) = Rate of market return for each day

The equation was then be used to calculate the expected return for the post announcement period. Since this study was longitudinal study, stock prices performance were calculated between the two periods, prior to the announcement of season equity offering and period after announcement. The expected returns calculated using the regression model were compared with actual stock returns to derive the abnormal returns for each day, calculated as follows:

\[ AR_t = R_t – E(R) \]

- \( AR_t \) = the abnormal rate of return for each day
- \( R_t \) = the rate of return on the stock for each day
- \( E(R_t) \) = the expected rate of return for the stock return of the day based on market rate of return.
3.5.1 Operationalization of variables
The returns were measured by the changes in daily market prices of securities by the price of the security at the beginning of the holding period. It will be expressed as follows:

\[ R = \frac{(P_1 - P_0)}{P_0} \]

\( R \) =daily return on the security
\( P_0 \) = the price of the security at end of the holding period
\( P_1 \) = the price of the security at beginning of period

3.5.2 Test of Significance.
The t-test was used to assess the significance of the effects of the issuance of seasoned equity offerings on stock performance of commercial banks in Kenya by testing the mean abnormal return. Significance was tested at 5% level.
CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction
This chapter detailed the data analysis, findings and interpretations of the research study. Descriptive statistics and regression analysis are respectively discussed. Analysis results and findings are also discussed.

4.2 Return Estimation Models

Table 4.1 Regression Coefficients, Housing Finance Corporation Seasoned offering

<table>
<thead>
<tr>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-.078</td>
<td>.311</td>
<td>-.251</td>
<td>.803</td>
</tr>
<tr>
<td>Market return</td>
<td>.873</td>
<td>.250</td>
<td>.493</td>
<td>3.495</td>
</tr>
</tbody>
</table>

a. Dependent Variable: HFCK

Table 4.1 indicates the regression coefficients for housing finance corporation of Kenya. From the table the return model was estimated to be; Rt= -0.078+0.873Rm.

Table 4.2 indicates the regression coefficients for Stanbic bank. From the table the regression of stock returns on market returns a returns model was obtained as follows R_t= 0.03+0.911Rm.
### Table 4.2 Regression Coefficients, Stanbic Bank Seasoned offering

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.030</td>
<td>.327</td>
<td>.092</td>
<td>.927</td>
</tr>
<tr>
<td>Market returns</td>
<td>.911</td>
<td>.108</td>
<td>.204</td>
<td>1.287</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Stanbic

### Table 4.3 Regression Coefficients, Kenya Commercial Bank Seasoned Offering

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-.264</td>
<td>.424</td>
<td>-.622</td>
<td>.538</td>
</tr>
<tr>
<td>Market returns</td>
<td>.955</td>
<td>.669</td>
<td>.226</td>
<td>1.429</td>
</tr>
</tbody>
</table>

a. Dependent Variable: KCB

Table 4.3 reports the regression coefficients for Kenya Commercial Bank over the estimation period. The return generating model was estimated as: \( \hat{R}_t =  -0.264 + 0.955R_m. \)
Table 4.4 Regression Coefficients, Diamond Trust Bank Seasoned Offering

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
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<td>.343</td>
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<tr>
<td>Market returns</td>
<td>.227</td>
<td>.658</td>
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</table>

a. Dependent Variable: DTB

Table 4.4 reported the regression coefficients for Diamond Trust Bank over the estimation period. The return model was estimated as; $R_t=0.197+0.227R_m$. 

Table 4.5 Regression Coefficients, National Industrial Corporation

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.414</td>
<td>1.262</td>
</tr>
<tr>
<td>Market return</td>
<td>-2.842</td>
<td>2.766</td>
</tr>
</tbody>
</table>

a. Dependent Variable: NIC

Table 4.5 indicates the regression coefficients for the returns of National Industrial Corporation over the estimation period. The regression model was estimated to be as follows:

$R_t=0.414-2.842R_m$. 

23
Table 4.6 Regression Coefficient, Standard Chartered Bank Kenya

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.253</td>
<td>.276</td>
<td>.915</td>
<td>.366</td>
</tr>
<tr>
<td>Market return</td>
<td>.257</td>
<td>.436</td>
<td>.095</td>
<td>.590</td>
</tr>
</tbody>
</table>

a. Dependent Variable: STANCH

Table 4.6 indicates the regression coefficients for the returns of Standard Chartered Bank Kenya over the estimation period. The regression model was estimated as follows;

$$ R_t = 0.253 + 0.257R_m. $$

Table 4.7 Regression Coefficients, Standard Chartered Bank Kenya

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.235</td>
<td>.337</td>
<td>.697</td>
<td>.490</td>
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<tr>
<td>Market return</td>
<td>.196</td>
<td>.674</td>
<td>.047</td>
<td>.290</td>
</tr>
</tbody>
</table>

a. Dependent Variable: STANCH

Table 4.7 indicates the regression coefficients for the returns of Standard Chartered Bank Kenya over the estimation period. The regression model was estimated as;

$$ R_t = 0.235 + 0.196R_m. $$
Table 4.8 Regression Coefficients, Kenya Commercial Bank

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-.107</td>
<td>.198</td>
<td>-.541</td>
<td>.592</td>
</tr>
<tr>
<td>Market return</td>
<td>.425</td>
<td>.296</td>
<td>.230</td>
<td>1.437</td>
</tr>
</tbody>
</table>

a. Dependent Variable: KCB

Table 4.8 reports the regression coefficients for Kenya Commercial Bank over the estimation period. The return generating model was estimated as; \( R_t = -0.107 + 0.425R_m \).

4.3 Measurement of Abnormal returns
Using the regression models as shown in appendix II, the estimated returns over the post announcement period was calculated and averaged. The actual returns were also recorded and averaged for forty days in the post announcement period. The average abnormal returns were calculated as the difference between the actual returns and the estimates return and accumulated. Calculation of estimated returns, average actual returns and average abnormal returns is calculated as shown in appendix II.
Graph 4.1 Average Actual Returns Relative to Estimated Average Returns

Graph 4.1 shows the average daily actual return and the average daily estimated return during the post event period. As observed in the graph, actual return vary randomly around the expected without being seen to clearly exceed or underperform the expected return.
Graph 4.2 Average Abnormal Returns and Cumulative Average Abnormal Returns

Graph 4.2 reports the average abnormal return and the cumulative average abnormal return. The graph shows that the average abnormal return clustered around zero with most of the troughs occurring below zero percentage point. The cumulative average abnormal return after the announcement period rises above zero in the few days following seasoning but fall below the zero percentage level shortly thereafter.
Table 4.10 Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abnormal average</td>
<td>40</td>
<td>-.079</td>
<td>1.052</td>
<td>.1663</td>
</tr>
</tbody>
</table>

Table 4.10 indicates the mean abnormal average return and standard deviation of returns. The mean abnormal average return was found to be -0.079% with a standard deviation of 1.052%.

Table 4.11 Significance Test for Abnormal Returns

<table>
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<tr>
<th></th>
<th>Test Value = 0</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
</tr>
<tr>
<td>Abnormal average</td>
<td>-.476</td>
</tr>
</tbody>
</table>

Table 4.11 shows the result of a significance test for the mean abnormal return. The mean abnormal return was found to be -0.079% with a significance probability (p-value) of 0.637.

4.4 Discussion

Event study methodology was used to evaluate the effect of seasoned offering on the performance of stocks of commercial banks listed on the Nairobi Securities Exchange. A pre-announcement period of forty days was used with the effect of seasoning on returns being evaluated on the forty period following seasoning. The announcement
day was omitted due to the abnormal returns associated with the event. Graph 4.1 indicates that the average actual return varied randomly around the expected return. The average abnormal return was largely negative with the cumulative average abnormal return being positive in the days immediately after seasoning but turns negative shortly after as indicated in graph 4.2. As reported in table 4.9 the cumulative average abnormal return was found to be -3.1651%. This indicated that the cumulative average return abnormal return following seasoning by commercial banks were negative. This result confirms the findings of Slovin, Shushka and Lai (2000) and that of Olesaaya (2010).

As reported in table 4.10 the mean abnormal return was found to be – 0.079% with a standard deviation of 1.052%. This suggested that the mean abnormal return was negative. The results of this test are contained in table 4.11. The mean abnormal return had significance probability (p-value) of 0.637. Since 0.637 is greater than 0.05, the mean abnormal return were not significantly different from zero. This result confirmed the findings of Masulis et al. (1999), Mwangangi (2011) and Kithinji et al. (2014).
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
In this chapter a summary of the findings from the study, conclusions, limitations and recommendations are presented. Also, areas for further research are suggested.

5.2 Summary of the Findings
This study sought to establish the effect of seasoned equity offering on stock performance of commercial banks in Kenya. Event study methodology was used. The study found that the actual return after the announcement period varied randomly about the expected return. The average abnormal return immediately after the announcement was temporarily positive but in the long period after seasoning was largely negative.

The cumulative average abnormal return over the forty day period after announcement was found to be -3.1651% as reported. The result notes that the mean abnormal return was -0.079% with a standard deviation of 1.052%. The mean abnormal return was not statistically significantly at 5% level of significance.

5.3 Conclusions
The objective of the study was to establish the effect of seasoned equity offering on stock performance of commercial banks in Kenya. The result indicated the actual return varied randomly around the expected return. The cumulative average abnormal return was found to be negative. The mean abnormal return was found to be negative. The result of t-test of significance indicated that the mean abnormal returns were not statistically significant at 5% level of significance. The study concluded that equity
seasoning do not have a significant effect on commercial banks stock performance in Kenya.

5.4 Recommendations
This study found that equity seasoning offerings do not produce significant abnormal returns for stocks of commercial banks in Kenya. The study recommends that seasoned equity offerings be minimized and alternative sources of funds be explored. This is because, the shareholders do not expect consistent positive returns from stocks which have undergone Seasoned Equity Offerings and in the long run, the returns are actually negative.

5.5 Suggestions for Further Study
Further research may investigate the effect of seasoning on stock performance by considering companies that made no other announcement simultaneous to seasoning. Such a study would enable the possible contamination due to other announcements to be eliminated. Also further research may investigate the effect of seasoning on volatility of stock returns.

5.6 Limitations of the Study
In most cases commercial banks that made a seasoned equity offering at the NSE simultaneously issued other information such as dividends or bonus shares. Such information may fiddle the effect of seasoned equity offering on stock returns. Thus it is possible that the observed effect on stock returns is due to other factors other than seasoning.
REFERENCES


# APPENDIX I: Commercial Banks in Kenya

| 1. (ABC) African Banking Corporation Ltd. | 24. First community Bank Limited |
| 4. Bank of India | 27. **Gulf** African Bank Limited |
| 5. Barclays Bank of Kenya Ltd. | 28. Habib Bank A.G Zurich |
| 6. CFCStanbicBank Ltd | 29. Habib Bank Ltd |
| 7. Charterhouse Bank Ltd | 30. Imperial Bank Ltd |
| 8. Chase Bank (K) Ltd | 31. I &M Bank Ltd |
| 11. Commercial Bank of Africa Ltd. | 34. K-Rep Bank Ltd |
| 12. Consolidated Bank of Kenya Ltd. | 35. Middle East Bank (K) Ltd |
| 14. Credit Bank Ltd. | 37. NIC Bank Ltd |
| 17. Dubai Bank Kenya Ltd. | 40. Prime Bank Ltd |
| 19. Equatorial Commercial Bank Ltd. | 42. Trans-National Bank Ltd |
| 20. Equity Bank Ltd | 43. UBA KenyaBank Limited |
| 21. Family Bank Limited |   |
| 22. Fidelity Commercial Bank Ltd |
| 23. Fina Bank Ltd |

Source: Central Bank of Kenya
APPENDIX II; Average Estimated Returns, Average Actual Returns and Average Abnormal Returns

<table>
<thead>
<tr>
<th>Time relative to announcement</th>
<th>Average actual returns</th>
<th>Average estimated returns</th>
<th>Average abnormal return</th>
<th>Cumulative average abnormal return</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.1846</td>
<td>0.0231</td>
<td>0.0700</td>
<td>0.0700</td>
</tr>
<tr>
<td>2</td>
<td>2.4078</td>
<td>0.3010</td>
<td>2.3297</td>
<td>2.3997</td>
</tr>
<tr>
<td>3</td>
<td>-1.0719</td>
<td>-0.1340</td>
<td>-0.7814</td>
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</tr>
<tr>
<td>4</td>
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<td>-0.2476</td>
<td>1.3707</td>
</tr>
<tr>
<td>5</td>
<td>-0.7735</td>
<td>-0.0967</td>
<td>-0.6285</td>
<td>0.7421</td>
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<tr>
<td>7</td>
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<tr>
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<td>0.0370</td>
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</tr>
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<td>0.0503</td>
<td>0.2366</td>
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<td>0.0703</td>
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<tr>
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<td>0.1048</td>
<td>0.7122</td>
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</tbody>
</table>
...continued

<p>| | | | | |</p>
<table>
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<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
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<td>0.5441</td>
<td>-3.1651</td>
</tr>
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</table>
Table 4.8 reports the average actual returns, average estimated returns, average abnormal returns and the cumulative average returns in the post seasoned offering announcement period. From the table the cumulative average return was found to be -3.1651%.