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INFLUENCE OF INCOME STREAMS ON MARKET RETURNS OF COMMERCIAL BANKS LISTED IN NAIROBI SECURITIES EXCHANGE

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Abstract

Purpose: The purpose of this study was to determine the influence of income streams on market returns of Commercial Banks Listed in the Nairobi Securities Exchange.

Methodology: The study used descriptive research design and conducted a Census Survey on all the 11 Commercial Banks listed in the NSE using Secondary data from Audited Financial Reports and NSE 20 Share Index for a period between 2012 and 2017 (both inclusive) that were collected from the Listed banks' individual, KNBS, CBK and NSE websites with the aid of the secondary data collection sheet. The data collected was analyzed using SPSS Version 22.0 and with its help Multi-regression analysis model was used to analyze the data and present the results on tables. Coefficient of determination (R^2) and ANOVA were used to test the hypothesis while T-Test and F-Test were be used to establish the significance of the model at 95% confidence level.

Findings: The correlation results revealed that all the predictors of Income Streams except Dividend Income had a significant influence on Market Returns (NSE 20 Share Index). On the other hand, the regression findings of the study were that there was a positive significant Influence of all Income Streams predictors combined on Market Returns of Commercial Banks listed in the NSE. The F-statics of 7.613 was also significant at 0.000 to explain the relationship. The study concluded that there was a significant positive influence of Income Streams on Market Returns.

Unique contribution to theory, practice and policy*:* The study recommended that in order to improve the Market Returns, the management of Listed Commercial Banks need to identify and invest on Income Streams that yield high returns and they should embrace Income Streams Diversification.

Keywords: *Income streams, stock markets returns, commercial banks, Nairobi Securities Exchange*

1.0 INTRODUCTION

1.1 Background of the Study

Stock Markets are gaining prominence in the world today. Najaf (2016) suggests that Stock Markets of all nations are the best way to reflect the economic position on all the developing countries and emerging countries. The Stock Market is one of the vigorous sectors which play a significant role in contributing towards economic wealth of a country (Kimura, 2017). The Stock Market links borrowers and lenders of long-term financing through trading of stocks and bonds (Mishkin, 2001). Commercial Banks are among the Companies Listed in the Securities (Stock) Exchange Markets. They aid in the execution of socio-economic activities and primarily they serve as a medium that bridges the gap between surplus and deficit spending units in an economy. These fundamental functions of commercial banks generate Interest Income which is their major source of revenue with loans and advances forming a greater proportion of the total assets of Banks (Basil et.al, 2014).

However, with the Great Recession of 2008 and the ongoing Euro era sovereign debt crisis which started in early 2010 have led to elevated strains in financial markets despite massive support programs conducted by central banks in advancing economies, making Banks still face a challenging environment due to pressure building up on both sides of Banks' balance sheets. Asset values and earning expectations have been impaired as the weakening of economic conditions in the Euro era offset hopes for a sustained recovery hinted by improved economic data in the us and major emerging markets' countries (Jorge et.al, 2012). Generally in the USA and the world, global integration, technological advances and financial reforms have made parts of wholesale and retail Commercial Banks to be highly competitive (Shelagh, 2005). For this reason Commercial Banks have gradually beyond their traditional role and sources of Income to encompass more activities that generate Non-Interest Income (Ronald & Chandelle, 2005).

In the Kenyan context, Commercial Banks especially those listed in the NSE are shifting much focus from the Interest Income activities which are the core businesses to diverse Non-interest Income activities. This is evident in the recent times, due to the capping of the interest rates, technological changes, bank size changes and macro-economic conditions among others. The major reason is that banks, are striving to embrace technology in order to meet the various diverse customers' demands. According to Ankrah (2012), technology has brought about a complete paradigm shift in the functioning of banks and delivery of banking services by reducing costs and uncertainties in the industry.

1.1.1 Income Streams

Income streams are revenues that Commercial Banks earn from their operations in a particular period (normally one year) they include Interest Income and Non-Interest Income (Ng'endo, 2012). Interest income is generated from the core business of lending and accepting deposits. Richard et.al, (2015) argues that lending activities is made possible only if Commercial Banks will mobilize enough finds for their customers because they depend on depositors' money as a source of funds creating a relationship between the ability of banks to mobilize deposits and the amount of credit granted to customers. Due to the problem of profitability and stiff competition in the industry as a result of financial liberalization of the 1990s in Kenya Commercial Banks'

performance was weakening. In response Commercial Banks have changed their behavior of Income Sources by diversifying as a possible way of improving Financial Performance (Teimet et.al. 2010). They have diversified into Non-Interest Incomes such as Dividend Income, Foreign Exchange Trading and Financial Instruments. It is evident that Financial Institutions generate increased proportion of their income from non-intermediation activities (DeYoung & Rice, 2004). Teimet et.al (2010) argues that the critical analysis of the financial statements reveal a different trend where over 40% of their Net Operating Income comes from intermediation Income generating activities meaning that intermediation activities are becoming less important part of the banking business strategy and strategically banks have shifted their sales mix by diversifying in income sources. Stiroh (2004) as quoted by Teimet (2010) findings from USA studies show that in 1990's Non-Interest income grew rapidly to be a large part of bank operations. Non-interest income accounts for 43% of USA commercial banks net operating income. There is need to find out the influence of various Income Streams on Stock Market Returns since investors tend to look at viable investments to put their funds in, considering that they are risk averse.

1.1.2 Market Returns

Stock Market Returns is the gain or loss of value of a share in a particular period usually quoted as a percentage on it. For investors to evaluate the performance of a stock market, they observe the level of various market indices before investing their surplus funds (Mugambi & Oketh, 2016). Nkukuu (2012) mentions that Market Returns of the Security exchange are generally carried out using the Market Indices. According to Kimura (2017), the Stock Index computes the total required as well as the risk measures for the cumulative market or a section of the market over a stated time period. The most common stock market indices include the NSE All-Share Index, NSE 20 Share Index and NSE 25 Share Index (www.nse.co.ke). Stock Market Returns determine how efficient and effective a financial market allocates shares and equities based on preference and availability of market information. Higher profitability and overall growth of a firm is reflected on the trading stock returns it holds. Waithaka (2014) found out that there was no significant difference between the NSE 20 Share Index and NASI and also established that the NSE 20 share index was a better market measurement index compared to the NASI. Thus, this study used NSE 20 Share Index since it serves as the best and most commonly used benchmark tool used to measure Stock Performance in Kenya thus Returns on Stock.

1.1.3 Income Streams and Market Returns

The relationship between Income Streams and Market returns is well suggested by Markowitz Portfolio theory by Harry Markowitz in 1952 in his article "Portfolio Selection." published in the Journal of Finance. The theory is based on the assumption that investors are risk averse in that they consider a portfolio that is less risky and the return on security is a normal distribution thus forming the foundation of portfolio decision (Ng'endo, 2012). The theory will enable the NSE listed banks to invest in Income Streams that provide a stable and less volatile income, economies of scale and scope and the ability to leverage managerial efficiency across products thus increasing Stock Market Returns/Performance (Kirui, 2014). The EMH theory concurs with the modern Portfolio theory by suggesting there ought to be an efficient market which stock prices reflect all available information and there is no price perversion, stock prices are to reflect

Company's productivity. In an efficient market there are many rational investors whose aim is to maximize profits. From the literature review the researcher came across, Income Streams and Market Return studies have gained a lot of prominence separately in the recent times by many researchers but unfortunately none of the studies have directly linked the two variables (Income Streams and Market Returns) thus driving this study. Christus et.al, (2008) established that Profits Efficiency better explains Stock Market Returns as compared to traditional accounting profit measures (ROE). Ndiragu (2016) noticed that financial institutions especially banks have continuously reported consistent upward growth rate in operating profit that is inconsistent with their Share Performance. This prompted the researcher to find out the influence of Income Streams on Market Returns of Commercial Banks Listed in the NSE.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) is the largest securities exchange in East and Central Africa. It was incorporated in 1954 under the companies act (CAP 486) of the laws of Kenya and is mandated to facilitate and supervise transactions carried out by investors of the listed companies. It changed its name from Nairobi Stock Exchange ltd. to Nairobi Securities Exchange ltd. in July 2011 so as to evolve to into a full service Security Exchange Limited which supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments in its strategic plan. NSE is regulated by the Capital Markets Authority (CMA) and it works with the Government of Kenya, CMA and other stakeholders to introduce rules and regulations to support security lending and borrowing in an effort to enhance liquidity in the market. (NSE, 2017). In July 2016, NSE received a formal recognition as a self-regulatory organization (SRO) from the CMA. The NSE facilitates good management of companies by asking them to give periodic reports of their performance, that is, the daily market reports of their Market Returns and Pricelists to ensure that investors know the worth of their assets all the time (Kinyua, 2016). This implies that they keep easily available, accurate, timely and reliable data that will be helpful in this study. The NSE consists of 50 firms as at 3rd March 2018 from eight segments consisting of 7 Agricultural companies, 2 Auto-mobile and accessories companies, 11 commercial banks, 11 commercial and services companies, 5 construction and allied companies, 5 energy and petroleum companies, 6 insurance companies and 3 investment companies (www.nse.co.ke). The target population for this study was the 11 commercial banks listed at the NSE.

1.2 Statement of the Problem

Stock markets play a pivotal role in the economy by mobilizing savings and expanding financial sources to companies. Commercial Banks listed in the NSE are doing very well. According to the NSE, an enormous value of Kenya's wealth is tied up in the stock market with market capitalization standing at Ksh. 2.3 Trillion as at May 2017 (www.nse.co.ke). The issue of the influence of Income Streams and Market Returns is gaining prominence as evident from the literature review. However, there are no studies so far that the researcher came across linking the two with the five variables utilized in this study thus an existence of a Conceptual and Contextual research gaps. Investment is always at risk depending on how the market performs (Kimura, 2017).

The Great recession of 2008, ongoing Euro era sovereign debt crisis which started in early 2010 and Kenyan financial liberalization of the 1990's and recent Capping of the Interest Rate in 2016, have led to decorated stains in Financial Markets. However, Ankrah (2012) mentioned that technology has brought about a complete paradigm shift in the functioning of Banks and delivery of banking services by reducing costs and uncertainties in the industry. Commercial banks in the world and in Kenya especially those listed in the NSE are shifting much focus from the Interest Income alone to diversify their Income Streams to Non-Interest income as alternate channels due to Technological advances, Macro-economic conditions such as Interest Rate Capping, Bank-size among others. This is evidenced in the literature review internationally by Dimitrious & Angelos (2015), Chiang et.al. (2014), Robert & Tara (2003) among others and locally by Oniang'o (2015), Kibaara (2015), Murithi (2013) among others. Despite the mixed reactions most of the studies concluded that Non-interest income is associated with risk-return tradeoff on average thus should co-exist rather than replacing Interest Income from intermediation activities that remain the Banks' core financial function (Robert & Tara, 2003). Studies on Income Streams have greatly focused much on Financial Performance of the Commercial Banks and not about Market Returns which is a very important aspect in the Stock Market. Ndiragu (2016) noticed that financial institutions especially Banks have continuously reported consistent upward growth in operating profits that are inconsistent with their share performance.

On the other hand, a lot of studies have been done on Market Returns as evidenced in the empirical literature review with none of the studies focusing on the influence of Income Streams on Market Returns. Ndiragu (2016) found out a direct relationship between Financial Performance and Market Returns. From the observation of Income Streams from the Audited Financial Statements and the Market Returns (NSE 20 Share Index) for the period under study there is a significant fluctuation in Income Streams as well as Share Market Returns, thus the need to investigate and find out what is happening. Therefore this study sought to determine and assert whether Income streams have an influence on Market Returns, theoretically and empirically so as to Bridge the Conceptual and Contextual Knowledge gap in the area Thus, this study sought to answer the research question, "What is the Influence of Income Streams on Market Returns of Commercial Banks Listed in the Nairobi Securities Exchange?"

1.3 Specific Objectives

i. To investigate the influence of Loans and Advances Income on Market Returns of Commercial Banks Listed in the Nairobi Securities Exchange.
ii. To determine the influence of Deposits and Placements Income on Market Returns of Commercial Banks Listed in the Nairobi Securities Exchange.
iii. To establish the influence of Foreign Exchange Trading Income on Market Returns of Commercial Banks Listed in the Nairobi Securities Exchange.
iv. To find out the influence of Financial Instruments Income on Market Returns of Commercial Banks Listed in the Nairobi Securities Exchange.
v. To determine the influence of Dividend Income on Market Returns of Commercial Banks Listed in the Nairobi Securities Exchange.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Agency Theory

The agency theory came into existence in 1973 and 1974 concurrently but independently by Ross and Mitnick respectively. Mitnick (2011) as quoted by Kamau (2016), mentions that Ross is responsible for the origin of the economic theory of agency and Mitnick for the institutional theory of agency though the basic concepts underlying these approaches are similar and complementary though used under different assumptions. From the theory, shareholders control the business in theory but practically the managers control it on the day-to-day basis. Managers maximize their welfare by paying themselves salary levels, providing themselves with large empires through mergers and internal expansion and reducing risk through diversification which may not be beneficial to the shareholder but may well improve the manager's security. Managers are paid agency costs since they act as agents of the shareholders in the management of the assets of the business (Eddie, 2009). According to Maranga (2013), profits are majorly distributed to investors in the stock exchange through dividend payments and share price increase and these profits and losses usually reflect on the share price and the market index. These sentiments are echoed by Nkukuu (2012) who mentioned that market returns of the securities exchange are generally carried out using the market indices.

The theory is relevant to the study in that it will help in evaluating the relationships between the managers as agents and shareholders as the principals, explain potential agency problems in various contexts, explain the mismatch of interests between them, determining various policies that would help to enhance their relationship all with the aim of shareholder wealth maximization and increase in Market Returns of the firm by engaging in diverse Income Streams generating activities. This is because higher Income Streams will lead to more investment with the expectation of increasing Share Prices that would in turn lead to higher Stock Market Returns.

2.1.2 Arbitrage Pricing Theory (APT)

APT was proposed by Stephen S. Ross and presented in his article "The arbitrage theory of Capital Asset Pricing", published in Journal of Economic Theory in 1976. APT states, that the expected rate of return of a security is the linear function from the complex economic factors common to all securities. The arbitrage in the APT is only approximate, relating diversified portfolios, on assumption that the asset unsystematic (specific) risks are negligible compared with the factor risks (Kristina, 2010). According to Ross (1976), returns of the securities are influenced by a number of macroeconomic factors. The macro economic factors are growth rate of industrial production, rate of inflation, spread between long term and short term interest rates and spread between low-grade and high grade bonds (Kasilingam, 2011).

This theory is applicable to this study in that it enables the management of the Commercial Banks listed in the NSE to come up with more appropriate investments or portfolio that would facilitate the generation of Income Streams at a lower cost with the aim of increasing their Stock Prices hence higher Market Returns by factoring in the macro-economic factors likely to influence the Stock Prices. This is because APT advocates for multi-factor analysis making it easy for them to determine the correlation between various variables under study so as to

determine those Investments and Portfolios that would give them more Expected Returns so as to engage more resources on those Income Streams or projects. It also enables them take advantage of a price differential between two or more markets to enable them indulge in arbitrage whenever they find differences in the results of assets with similar risk characteristics. According to Bing (2012), with this theory the Return of a Portfolio and the Return of an Asset are predictable to be a linear relation between Expected Returns on Investments and their Covariance with other random factor defined.

2.1.3 Markowitz Portfolio Theory

The author of the modern portfolio theory is Harry Markowitz who introduced the analysis of the portfolio of investment in his article "Portfolio Selection" published in the journal of finance in 1952 and his subsequent book in 1959. The new approach presented in his article included portfolio formation by considering the expected rate of return and risk of individual stocks and critically their interrelationship as measured by correlation. He also showed how it might be possible to better these simplistic portfolios by taking into account the correlation between returns and stocks (Kristina, 2010). The primary objective of the theory is to identify asset combinations that are efficient. The theory is based on the assumption that investors are risk averse in that they consider a portfolio that is less risky and the return of securities are normal distributed thus forming the foundation of the portfolio decision (Ng'endo, 2012).

The theory plays an important role in explaining the NSE listed Commercial Banks' influence of Income Streams on Market returns. Kristina (2010) mentions that in reality, there are infinite number of portfolios available for investment thus the investor needs to evaluate all the portfolios on risk and return basis. Investing in various income streams provide a stable and less volatile income, economies of scale and scope and the ability to leverage managerial efficiency across products thus performance (Kirui, 2014).The theory is applicable to this study in that it would enable the investment managers to distill a multidimensional take on the sets of information concerning different Income Stream opportunities available by doing a graphical representation using just two parameters that include the Correlation between Risk and Return to enable them take a more opportunistic approach while monitoring the broader concentration in their core business which generates the Interest Income.

2.1.4 Asymmetric Information Theory

The theory was first presented by George Akerlof in 1970. The other seminal contributors to this theory include Spence (1973) and Rothschild & Stiglitz (1976). Asymmetric information is sometimes referred to as hidden information meaning that one party to a transaction has more information regarding the past that is relevant to the transaction than the other party thus providing an incentive for pre contract opportunism. This implies that one party will take advantage of the other by obtaining better contractual terms than they should obtain and conditions of perfect information as leading to the problem of adverse selection where only the products or customers with the worse quality characteristics are able to make transactions and others are driven from the market (Nick, 2005)

This theory significant to this study in the sense that Bank shareholders cannot oversee every management decision nor can depositors be expected to monitor the activities of the bank and for

this reason the listed Commercial Bank managers may have a lot of information concerning various Income Streams and their influence on Market Returns of their Banks but fail to disclose to disclose such information for profit smoothening. This is because many managers tend to pursue revenue maximization rather than Shareholder Value/Wealth maximization because their remuneration largely depends more on revenues of the firm than its Shareholder Wealth. Also asymmetry contributes to decisions to engage in investment on Income Streams to the best of knowledge of their highly skilled managers that yield more profits resulting to higher stock prices which in turn improve their Stock Market Returns.

2.1.5 Efficient Market Hypothesis

This theory was proposed by Eugene Fama in 1965 in his article "Random Walks in Stock Prices" published in financial analyst journal. The theory argues that Capital Market is efficient if the prices of securities which are traded in the market react to changes of situations immediately, fully and credibly reflect all the important information about the security's future income and risk related with generating income (Kristina, 2010). Kristina (2010) further argues that market price of stock reflects all known information and information that can reasonable be inferred. The theory states that price fluctuations are random and do not follow any regular pattern. For this reason, the theory holds the view that, in an efficient market, new information is processed and evaluated as it arrives and instantaneously adjust to new and corrected form. Consequently an investor cannot consistently earn excess returns by undertaking fundamental analysis or technical analysis (Kasilingam, 2013). Therefore investors wanting higher returns can only do so by making riskier investment decisions as opposed to market timing and stock selection since this hypothesis assumes that traders are rational and that stock prices change quickly to assimilate new information (Kimunge, 2017). Fama (1965) suggested that efficient market hypothesis can be divided into three categories namely; Weak form, Semi-strong form and the Strong Form efficiency.

This theory is related to this study, in that, it suggests that if the markets are efficient, then Income Streams would be reflected in the Market Prices immediately which is not the case at times. Thus the theory will assist the Management of the Listed Commercial Banks in the NSE get some information and measure the relative efficiency of markets and obtain a rough idea as to whether the Stocks are likely to follow a Random Walk, all with the aim of increasing their Stock Market Returns. Managers of Listed Banks need to seek information since, it is expected to give a bearing to Investment Decisions they are likely to make in Income Streams and their influence on Stock Markets Returns.

2.2 Empirical Review

Leming (2018) did an investigation on Bank Deposits and Stock Market Returns, proposed and tested a new channel for the transmission of Stock Market fluctuations into the real economy. The study established that when the Deposit and Equity Markets were not completely segmented, households chasing "hot" Stock Markets drained Bank Deposit Funding. The findings of the study established that in the aggregate, Quarterly Deposit Growth was significantly negatively correlated with Stock Returns. The negative relationship between Deposit Growth and Stock Returns was stronger in areas with high Stock Market Participation. The point estimate indicated

that a 10-percentage-point higher stock return leads to a slower deposit growth by 0.5 percentage points. The negative shocks to bank deposit funding during stock market booms translated to a reduction in lending, which had a negative effect on Local Economic Activities.

Kithome (2017) did a research that sought to determine the effect of Foreign Exchange Rates on Stock Market Returns at the NSE using Exchange Rates measured by Monthly Exchange Rates between KSH and USD as an independent variable, inflation measured by monthly CPI and Interest Rates as measured by monthly CBK lending rates as control variables and Stock Market Return as a dependent variable measured by Monthly Returns computed from the NSE 20 Share Index. Secondary data was collected for a period between January 2007 and December 2016 on a monthly basis. The study employed descriptive research design and Multi-linear regression model was used to analyze the association between variables. SPSS Version 21 was used for data analysis purposes. The study found out a weak correlation between the independent variables and stock market returns. The study recommended that policy makers should pay attention to the prevailing Foreign Exchange Rates as they can negatively affect Stock Market Returns recorded at the NSE.

Sekitoleko (2016) did a comparison between Uganda's Stock Market Performance with Bank Deposits and Government Bonds. The study argued that financial theory teaches that, over time, Share Markets should deliver better returns to the Investor than Bank Deposits and Government paper. Empirical evidence supported this and the report highlighted how the Ugandan Share Market had outperformed Investments in the Government Bond Market Bank and Commercial Bank Fixed Deposits over a three year period from October 2013 to October 2016. The results indicated that an investment tracking the Uganda Securities Exchange local counter index would earn an annualized return of 28%, way more than the return on an investment of the same amount in one year bonds (17%). An investment in commercial bank fixed deposits over the same period of time would only earn an annualized return of 13%. The study concluded that the Share markets tend to experience considerable volatility or movements upwards and downwards, from time to time. However, for investors prepared to wait it out during testing times, as evidenced by the recent bear market at the Uganda Securities Exchange (USE), they would expect Share Market Investment to deliver considerably better long-run returns than supposedly 'safer' investments, such as term deposits.

Brandes Institute (2015) published a paper on Income as the Source of long-term returns after observing that during the last two decades of the twentieth century, the investing world saw declining divided and bond yields, with prices generally moving higher for both equities and bonds. Based on the update through 2014, income continued to be a significant component of returns for U.S. Financial assets for all long-term periods. From the analysis of the longest-term data, from 1926 to 2014, the research findings were that the income component of fixed income returns generally represented more than 9/10 of return for periods as short as five years and the income component equity returns reached generally equality with the capital appreciation component around the 10-year horizon and then became increasingly dominant as time horizons were extended further. The study also revealed that the Dividend Income accounted for more than 60% of U.S Equity Returns over rolling 20-year periods.

Dimitrios & Angelos (2015) in their working papers did a dual investigation of Net Interest and Non-Interest Income on the profitability in the Greek Banking system aiming to understand the primary drivers of overall profitability of Greek banks using dynamic panel data techniques and a unique data set, including supervision data covering the whole Greek Commercial Banks from 2004 to 2011. The findings were that the Net Interest Income was primarily affected by Bank's market power, their operating costs and their strategic choices to diversify their Income Sources by enhancing Non-Interest Income. On the other hand Non-interest Income was more persistent than the Net Interest Income with the more efficient Banks possessing a strong Deposit Base, having a greater leverage in boosting their Non-Interest Income. Aggregate demand conditions and inflation affected both Income Components. Moreover Interest and Non-Interest Income are found to be substitutes rather than complements with Non-interest Income as an indirect competition investment by efficient banks, instead of competing directly with their peers through prices in Loans and Deposits.

Saud & Al-Imam (2015) did a study with the objective of finding the dynamics of the relationship between Bank Loans and Stock Prices in Saudi Arabia using quarterly data for the period 1998 to 2013. The estimation methodology consisted of a Cointegration test, an error correction model estimation, and VAR Granger Causality**.** The study also found a positive relationship between Saudi's Stock Market Index and Bank loans, as supported by the economic theory that as stock prices rise, the supply and demand for bank loans increase. That positive relationship between Saudi's Stock Market Index and Bank loans was true for all types of Bank loans except Credit Card Loans. The negative relationship between Credit Card Loans and Saudi's Stock Market Index can be justified because Credit Card Loans are affected mainly by the consumption decision, which depends on the wealth effect.

Kariguh (2014) did a research using a descriptive research design whose aim was to determine the relationship between Foreign Investment Activity and Market Returns at the NSE. The foreign investment activity was measured by the monthly foreign investor trade turnover for the period 2008-2013. The study employed a dynamic econometric model to assess the relationship and found that increased foreign investor participation in the stock market was likely to push up Share Prices and result in increased Returns. The NASI Index to foreign investor's turnover is positively correlated to the Market Return. The results on the relationship between foreign investor activity and market returns at the NSE show that stock market return is driven up by the amount of foreign investment in the market and hence affects the performance of the market.

Waithaka (2014) did a study that sought to investigate the effectiveness of the NSE 20 share index in representing the overall market performance at the NSE. The sample of the study included all the firms that form the NSE 20 share index and NASI. The index was selected from companies in the NSE from all sectors. This was an empirical study and required secondary data on NASI and NSE 20 share index for the period January 2013 to December 2013 which was obtained from the NSE Information Centre. From the correlation analysis results there is a strong positive correlation of 0.822 between market performance and NASI and a rather stronger positive relationship of 0.861 between market performance and the NSE Share Index. The findings of the study indicated that there was no significant difference between the two indices also the NSE 20 Share Index was a better Market Measurement Index compared to the NASI.

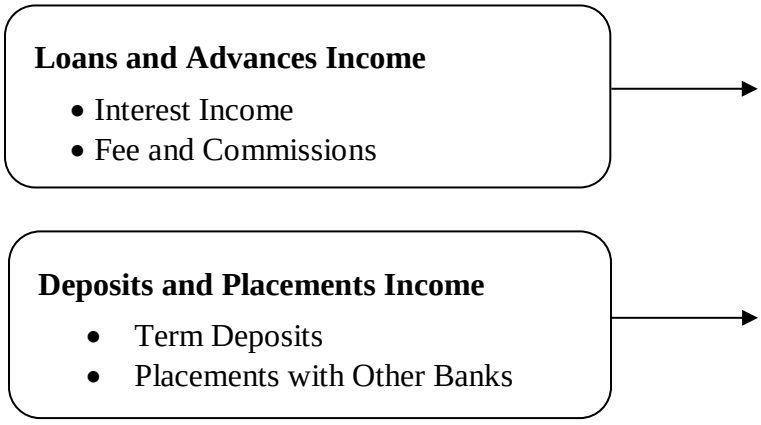
Generally the NSE was effective as a measure of the market performance although in the future there should be an Index to measure each market segment.

Andritzky (2012) did a staff report on Government Bonds and Their Investors: What Are the Facts and Do They Matter? The paper introduced a new dataset on the composition of the investor base for government securities in the Great 20 advanced economies and the Euro area. During the last decades, investors from abroad have increased their presence in government bond markets. The financial crisis broke this trend. Domestic financial institutions allocated a larger share of government securities in their portfolios, as Japan has done since its crisis in the 1990s. Increases in the share held by institutional investors or non-residents by 10 percentage points were associated with a reduction in yields by about 25 or 40 basis points, respectively. The data show a varied lead-lag relationship between bond yields and investor holdings. Portfolio balance estimates suggest that a change in statutory or regulatory holdings of government securities to the tune of 10 percent of the outstanding stock causes expected returns to decline by 7 to 25 basis points.

Ibrahim (2006) study sought to estimate Stock Prices and Bank Loans in Malaysia using Vector Autoregressive Models to assess the dynamic interaction between Bank Loans and Stock Prices and establish whether Bank Loans help in transmitting financial shocks to the real sector. Moreover, the causal relationship between Stock Prices and Bank Lending had an important role in providing a deeper understanding of the vulnerability of Banking and the mechanism of stock prices in the real market. The study found evidence that Bank Loans react positively to an increase in Stock Prices, but there seems to be no influence from Bank Loans to Stock Prices. Similarly, Bank Loans seemed to accommodate an expansion in real output, but again there seemed to be no influence from Bank Loans to real economic activity. In addition, the exchange rate seemed to affect Banks' lending activities through its effects on real output and stock prices. From these dynamic responses, Ibrahim (2006) tends to conclude that bank loans had no significant role in transmitting Stock Market Shocks to the real sector and the health of the Banking sector depends crucially on the stability of the Stock Market and real output. Thus, policies to stimulate Bank Loans in an attempt to boost Stock Market activities as well as expand the real activities was futile.

2.3 Conceptual Framework

Independent Variables **Dependent Variable**



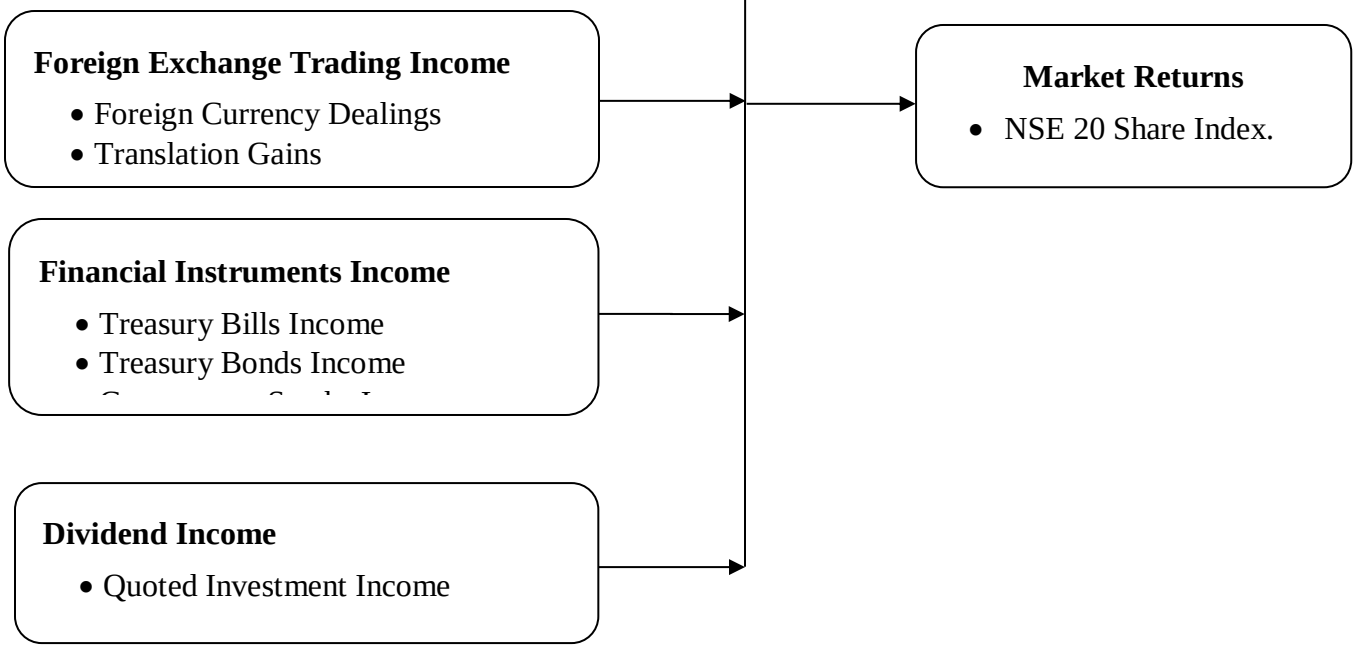


Figure 1: Conceptual Framework

3.0 RESEARCH METHODOLOGY

The study adopted a Descriptive Research Design. The target population for this study was all the 11 Commercial Banks in Kenya listed at the Nairobi Securities Exchange (NSE) as at 3rd March 2018. The sample size constituted all the 11 Commercial Banks Listed at the Nairobi Securities Exchange and Census Survey Sampling Technique was utilized in the study. The study utilized Secondary Data Sources to gather information relevant in reaching at the research objective. The study covered a period of Six years between 2012 and 2017 (both inclusive). The Secondary Data was collected from the CBK supervision reports and Website, NSE website, KNBS website and the individual Listed Commercial Banks' websites and their Annual financial reports. The data collection was done using the Secondary Data Collection Sheet. The Secondary Data that obtained was analyzed using Statistical Package for Social Sciences (SPSS) version 22.0 Computer Software. The data was cleaned, coded, categorized per each of the research variables and then analyzed using Descriptive such as Percentages, Minimum, Maximum, Mean and Standard Deviation, Skewness and Kurtosis. The Multiple Linear Regression Analysis Model was used to draw the relationship between the independent variables and the dependent variable, that is, the relationship between Income Streams (Loans and Advances Income, Deposits and Placements Income, Foreign Exchange Trading Income, Net Income from Financial Instruments and Divided Income) and Market Returns of Commercial Banks Listed in the NSE. The Multiple Linear Regression Model was used in linking the Independent Variables to the Dependent Variable is as follows:

$$\mathbf{Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + e}$$

Where:-

Y = Market Returns
X1 = Loans and Advances Income
X2 = Deposits and Placements Income
X3 = Foreign Exchange Trading Income
X4 = Financial Instruments Income
X5 = Dividend Income
B0 = Constant
β1, β2, β3, β4, β5 = Regression Coefficients to be estimated
e = error term (95% Confidence level)

Coefficient of determination (R^2) and Analysis of variance (ANOVA) test of hypothesis were computed to ensure none of the variables is highly correlated to each other. F-Test and T-test were used to establish the significance of the model at 95% confident level. The results obtained from the model were be presented in tables.

4.0. RESEARCH FINDINGS AND DISCUSSION

4.1 Descriptive Statistics

The objective of the study was to establish the influence of Income Streams on market returns of commercial banks listed in the Nairobi Securities Exchange. This section presents the descriptive statistical analysis of the variables of the study and results tabulated. Table 1 overleaf represents the summary statistics of the major indicators of the variables that were observed on a Census of all the eleven Commercial Banks listed in the NSE over a period of analysis 2012 to 2017.

Table 1: Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Dev.	Skewness	kurtosis
Loans and Advances Income	11	61.87	183.58	90.9282	35.00779	2.090	5.103
Deposits and Placements Income	11	.62	21.98	4.7555	6.33625	2.374	6.022
Foreign Exchange Trading Income	11	1.98	21.33	8.6127	5.04724	1.584	3.967
Financial Instruments Income	11	7.51	35.77	18.5610	8.15679	.990	1.223
Dividend Income	11	.01	9.50	2.1138	3.63565	1.661	1.599
Market Returns (“00”)	11	36	46	42.00	3.317	.000	-1.200
Valid N (listwise)	11						

The Minimum, Maximum, Mean, Standard Deviation, Skewness and Kurtosis are included in the model. The results showed that Loans and Advances Income had a minimum of 61.87%, maximum of 183.58%, mean of 90.9282%, standard deviation of 35.00779, Skewness of 2.090 and Kurtosis of 5.103. Deposits and Placements Income had a minimum of 0.62%, maximum of 21.98%, mean of 6.33625%, Skewness of 2.374 and Kurtosis of 6.022. Foreign exchange trading income had a minimum of 1.98%, maximum of 21.33%, mean of 8.6127%, standard deviation of 5.04724, Skewness of 1.584 and Kurtosis of 3.967. Financial Instruments Income had a minimum of 7.51%, maximum of 35.77%, mean of 18.5610%, standard deviation of 8.15679%, Skewness of 0.990 and Kurtosis of 1.223. Dividend income has a minimum of 0.01, maximum of 9.50, mean of 2.1138, standard deviation of 3.63565, Skewness of 1.661 and Kurtosis of 1.599. Lastly Market returns had a minimum of 36, maximum of 46, mean of 42, standard deviation of 3.317, Skewness of 0.000 and Kurtosis of -1.200. Skewness shows the degree of symmetry of a distribution relative to the normal curve while Kurtosis show the Preakness of a distribution. Analysis of Skewness showed that variables except market returns were Skewed right of their means and on the other hand the Kurtosis results showed that loans and advances income, deposits and placements income and foreign exchange trading income were Leptokurtic ($a>3$) while financial instruments and dividend income and market returns were platykurtic ($a<3$).

4.2 Inferential Statistics

The Correlation Results in table 2 overleaf indicated that there was a strong significant and positive correlation between Loans and Advances income and Market returns where $r=0.784$ and $p=0.004$. The study concurred with Saud & AL-Imam (2015) who found a positive relationship between Saudi's Stock market index and Bank loans to true for all types of loans except credit card loans. Also Ibrahim (2006) found evidence that bank loans react positively to an increase in stock markets. The study found a moderate significant and negative correlation between deposits and placements income and market returns where $r=-0.426$ and $p=0.012$. These findings concur those of Leming (2018) findings that quarterly deposit growth was significantly negatively correlated with Stock Returns.

Table 2: Correlation between Income Streams and Market Returns.

Variable	Coefficient Type	Loans and Advances income	Deposits and Placements income	Foreign Exchange Trading income	Financial instruments income	Dividend Income	Market returns
Loans and Advances income	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	11					
Deposits and Placements income	Pearson Correlation	.863**	1				
	Sig. (2-tailed)	.001					
	N	11	11				
Foreign Exchange Trading income	Pearson Correlation	.479	.220	1			
	Sig. (2-tailed)	.006	.016				
	N	11	11	11			
Financial instruments income	Pearson Correlation	.410	.474	.034	1		
	Sig. (2-tailed)	.000	.006	.026			
	N	11	11	11	11		
Dividend Income	Pearson Correlation	.028	.103	.280	.458	1	
	Sig. (2-tailed)	.047	.009	.001	.054		
	N	11	11	11	11	11	
Market returns	Pearson Correlation	.784**	-.426	.321	.605**	-.286	1
	Sig. (2-tailed)	.004	.012	.007	.000	.372	
	N	11	11	11	11	11	11

**. Correlation is significant at the 0.01 level (2-tailed).

There also exists weak positive correlation between Foreign Exchange Trading income and market returns where r=0.321 and p=0.07. The study concurs with Kithome (2017) who found a weak positive correlation between foreign exchange earnings and stock market returns. Kariguh (2014) found that increased foreign investor participation in stock market was likely to push up share prices and result in increase in returns. The NASI index foreign investors' turnover is positively correlated to market returns. The study found out that there also exists a moderate

significant positive correlation between financial instruments income and market returns given by r=0.605 and p=0.000. Lastly there is a weak and insignificant negative correlation between divided income and market returns r=-0.286 and p=-.0372 which is greater than 0.05. This is contrary to Brandes Institute (2015) that found out that dividend income contributed to more than 60% of US equity returns over rolling 20 years period. The study found out that loans and advances income, deposits and placements income, foreign exchange trading income and financial instruments have a significant relationship with market reruns while dividend income had an insignificant negative relationship with market returns in commercial banks listed in the NSE.

The study also tested the Influence of Income Streams of Market returns of Commercial Banks listed in the NSE and the Regression results for the model summary were presented in Table 3 below. The results indicated that Loans and Advances Income, Financial Instrument Income, Foreign Exchange Trading Income and Dividend Income combined are positively correlated with Market Returns given by NSE 20 Share Index as indicated by an R of 0.799 and the test is statistically significant. Furthermore, the results indicated that the predictor variables combined explain that 63.8% of the changes in market returns while the remaining 36.2% is explained by other factors not captured in the study. This provides an opportunity for further studies to include additional variables that could explain Bank's Market Returns. The model is also justified by the diagnostic statistics that show it is a good model since it lacks autocorrelation since the Durbin Watson value was 2.114 which is close to 2.

Table 3: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.799[a]	.638	.276	1.694	2.114

a. Predictors: (Constant), Dividend Income, Deposits and Placements Income, Financial instruments Income, Loans and Advances income, Foreign Exchange Trading income

b. Dependent Variable: Market returns

The study also established the model of fitness and the ANOVA results are represented in the table 4 below.

Table 4: ANOVA Findings

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2330.433	5	446.087	7.613	.000[b]
	Residual	306.113	5	61.223		
	Total	2636.546	10			

a. Dependent Variable: Market returns

b. Predictors: (Constant), Dividend Income, Deposits and Placements Income, Financial instruments Income, Loans and Advances income, Foreign Exchange Trading income

The ANOVA findings in table 4 above indicate that the model for Income Stream Predictors fit well as the F- Statistic of 7.613 was significant at 5% level of significance. This implies that the F-test of 7.613 and significance test of 0.000 ($p<0.05$) indicate that the test is appropriate and statistically significant in predicting the Influence of income streams on market returns.

The study also presented the Coefficient for Determination of Market Returns Results to assist in Hypothesis testing and generation of Multivariate regression equation. The results were presented in the table 5 below.

Table 5: Coefficient for Determination of Market Returns

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	177.039	36.144		4.898	.001
	Loans and Advances Income	.907	.259	.979	3.502	.009
	Deposits and Placements Income	-.592	.217	-.696	-2.728	.036
	Foreign Exchange Trading Income	.396	.121	.580	3.273	.013
	Financial Instruments Income	.065	.026	.132	2.500	.043
	Dividend Income	-1.280	1.016	-1.418	-1.259	.164

a. Dependent Variable: Market returns

The Coefficient of Determination Regression Results revealed that the Influence of Loans and Advances Income on Market returns is positive (B=0.907) and based on the t-value= 3.502 and p-value (sig=0.009) the Null hypothesis was rejected; the Influence of Deposits and Placements Income on Market returns is negative (B= -0.592) and based on the t-value= -2.728 and p-value (sig= 0.036) the Null hypothesis was rejected; the Influence of Foreign Exchange Trading Income on Market returns is positive (B= 0.396) and based on the t-value= 3.273 and p-value (sig= 0.013) thus the Null hypothesis was rejected; the Influence of Financial Instruments Income on Market returns is positive (B= 0.065) and based on the t-value= 2.500 and p-value (sig= 0.043) the Null hypothesis was rejected and the Influence of Dividend Income on Market returns is negative (B= -1.280) and based on the t-value= -1.259 and p-value (sig=0.164) the study concluded that the relationship was statistically insignificant since the p-value is more than 0.05 meaning that the Null hypothesis was not be rejected.

The multivariate regression equation to determine the Influence of the Income streams on Returns $\mathbf{Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + e}$ becomes

$$\mathbf{Y= 177.039 + 0.907X1 - 0.592X2 + 0.396X3 + 0.065X4 – 1.280X5+e}$$

Where: - **Y**= Market Returns, **X1**= Loans and Advances Income, **X2**= Deposits and Placements Income, **X3**= Foreign Exchange Trading Income, **X4**= Financial Instruments Income, **X5** = Dividend Income and **e**= error term (95% Confidence level)

The regression equation above has established that taking into consideration all factors (Loans and advances Income, Deposits and Placements Income, Foreign Exchange Trading Income, Financial Instruments Income and Dividend Income) constant at zero. Market returns' as a result of these independent factors were 177.039 units. The findings presented also showed that taking into all other independent variables at zero; a 1unit increase in Loans and Advances Income would lead to a positive 0.907 unit increase in Market returns of Commercial Banks listed in NSE; a 1 unit increase in Deposits and placements Income would lead to -0.592 unit decrease in Market returns of Commercial Banks listed in NSE; a 1 unit increase in Foreign Exchange trading Income would lead to positive 0.396 unit increase in Market returns of Commercial Banks listed in NSE; a 1 unit increase in Financial Instruments Income leads to a positive 0.065 unit increase in Market returns of Commercial Banks listed in NSE and a 1 unit increase in Dividend Income leads to a -1.280 unit decrease in Market returns of Commercial Banks listed in NSE.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The general objective of the study was to determine the Influence of Income Streams on Market Returns of Commercial Banks listed in NSE. The regression results revealed that Income streams are positively correlated with Market Returns. The F-test results indicated that the test is appropriate and statistically fit to predict the Influence of Income Streams on Market returns. The Correlation findings revealed that Loans and Advances Income, Deposits and Placements Income Financial Instruments Income and Foreign Exchange Trading Income have a significant influence on Market Returns of Commercial Banks listed on NSE thus we reject the null hypotheses and accept the alternate hypotheses. On the other hand Correlation findings revealed that Dividend Income has a negative insignificant influence on Market Returns of Commercial Banks listed on NSE thus we accept the null hypothesis and reject the alternate hypothesis.

5.2 Conclusions

Based on Regression findings of the study it was concluded that Income Streams positively influence Market Returns of Commercial Banks Listed in the NSE. Banks need to consider those Income streams that yield more Market Returns. It should also be noted that it is not only Income Streams that earn Commercial Banks' Market Returns. The study found out that Loans and Advances income has the highest significant positive influence on Market returns of Commercial Banks listed in the NSE and concludes that, Listed Banks in NSE should therefore lend more and source for cheaper deposits to reduce on cost of loans so as to further increase their Market Returns. The study found out the influence of Deposits and Placements Income on Market Returns to be negative but significant thus concludes that Deposits and Placements Income problems should be checked since they may adversely affect Listed Banks' Market Returns. The study found a positive significant influence of Foreign Exchange Earnings on Market Returns of

Commercial Banks listed in NSE and thus the study concluded the Listed Banks should invest more on it so as to yield more Market Returns. The study found a positive significant influence of Financial Instruments Income on Market Returns and concludes that Financial Instruments especially Government Securities issued by the Government through the Central Bank are worthwhile to invest in since they are guaranteed and risk free investments. Lastly the study concludes that there is a negative and insignificant influence of Dividend Income on Market Returns thus Commercial Banks need to invest in projects that would yield more returns.

5.3 Policy Recommendations

First, the study found out that some Income Streams have a negative influence on Market Returns. It is therefore recommended that management of the Commercial Banks Listed at the NSE should continue to focus on maximizing those Income Streams that yield more Market Returns by focusing on both Interest Income and Diversifying into profitable Non-interest Income Activities. Policy makers on the other hand need to draft guidelines that encourage the Commercial Banks to concentrate on the core business and encourage diversification into Non-interest income by providing incentives for technology transfer in the Banking Industry.

Secondly, the study recommended that the Management of Commercial Banks listed in the NSE should maximize Income from Loans and Advances being the core business and they will achieve these through adopting policies and measures such as excessing customer credit worthiness at the Credit Reference Bureau before lending, Sourcing for cheaper deposits so as to reduce Interest Income expenses, suspending some schemes such as Non-check off loans which are high risk and taking advantage of the available technology to encourage customers excess soft loans such as salary advance on the mobile banking platforms. The Central Bank on the other hand should ensure there is stability of interest rates to encourage lending.

Thirdly, the study recommended that Management of Commercial Banks listed in the NSE should put in place measures to check the problems associated with Deposits and Placements Income. They can introduce new products or modify the existing products such as goal savings account or giving attractive features of the fixed deposit accounts so as to promote a savings culture at an attractive interest package, lowering their placements with other banks and looking for viable investments and portfolios to invest the excess so as to better their Income Streams through Deposit and Placement Income. The Central Bank on the other hand should approve new products or modifications of existing products by Listed Commercial Banks as long as they adhere to standards and fairness in competition.

Fourthly, the study recommended that the Management of Commercial Banks listed in the NSE should plan for their Foreign Exchange Trading Income so as to obtain positive Cash flows, considering it brings higher yields on their Market returns by increasing their number of transactions and familiarizing themselves with the most recent Foreign Exchange rates since they keep fluctuating so as to reduce the translation risks. The Government through the Central Bank should put in place measures to enhance Foreign Exchange Rate stability since they affect the Foreign Exchange Trading income which has a positive significant influence on Market Returns of Commercial Banks Listed in NSE.

The fifth recommendation of this study was that, the Management of Commercial Banks Listed at the NSE should consider investing more on Government Securities issued by the Government through the Central Bank because they have guaranteed returns and they are risk free investments. The Central Bank on the other should give the first priority to Listed Banks when floating government securities before the private investors since this would assist the Listed Banks at the NSE improve their Market Returns.

Lastly, in relation to the influence of Dividend Income on Market Returns, the study recommended that the Management of the Commercial Banks Listed in NSE should consider investing in Portfolios and Investments such as Capital projects that would yield higher Dividend Incomes so as to boost their Non-interest Income which contributes to Income Streams of listed Commercial Banks. Alternatively, they may do away with Divided Income and replace it with another Income Stream that would be enhancing their Market Returns.

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