

**THE RELATIONSHIP BETWEEN PORTFOLIO
DIVERSIFICATION AND FINANCIAL PERFORMANCE OF
CENTUM LIMITED: A CASE STUDY OF CENTUM LIMITED**

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PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
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DECLARATION

This proposal is my personal script and has never been forwarded to any other institution of higher learning as an academic prerequisite.

Signed..... Date.....

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This proposal paper is presented for academic assessment with my support as the Supervising lecturer.

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I am also thankful to my husband Francis Njuguna, my three sons, Alex, Mark and David for their understanding and support. You kept my fire burning.

DEDICATION

This work is dedicated to my three sons, Alex, Mark and David. You are my inspiration and the reason for working hard.

ABSTRACT

Diversification of portfolios has become a modern concern with the aim of investors trying to minimize their risks and at the same time increase their returns. The main aim of the study was to assess the relationship between portfolio diversification and financial performance of Centum Limited. Centum Ltd has been portraying a very clearer need and importance of the asset diversification over the years. The company has various Strategic Business Units created for the purpose of diversifying its portfolios and making the investors grow over the years. This choice allowed the researcher to have a better insight on the relationship between portfolio diversification of a given company and its financial performance over a given period. The researcher purposively came with the choice of Centum limited since it has different asset classes of portfolios which make a good mix in that when one is not performing well in one particular financial period, another one may perform better to offset the loss. The study will be a time series so as to have a quick glance on the results. The study collected secondary data from the audited financial and published statements covering 2007 to 2016, a period of 10 years from Centum Limited. The study used multiple regression model which had one dependent variable (Y_t) – financial performance/profitability (ROAt) of Centum and three independent variables including asset portfolios, inflation rate, and Gross Domestic Product represented by X_1 , X_2 , and X_3 respectively. The study established that Centum portfolio diversification had a positive and significant relationship with performance in Real Estate and Infrastructure and marketable securities portfolio but had no significant relationship with financial services, Fast Moving Consumer Goods and unquoted equity portfolios. On the area of Real Estate and infrastructure, the Company is focusing on being part of the rising opportunities from the high demand in the Sector of housing in Kenya. The study recommends that Centum Limited should be consistent in its financial reporting so that the performance is tracked based on the portfolio where they come from. This would be the first step in achieving close monitoring of portfolio performance. The study also found the need for Centum Limited to train its Strategic Business Units (SBU) on portfolio diversification strategy so that the whole strategic functions of the firm are abreast to portfolio diversification strategies.

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LIST OF ABBREVIATIONS AND ACCRONYMS

CMA	Capital Market Authority
COG	Champions of Governance
KES	Kenya Shillings
MTP	Modern Portfolio Theory
NSE	Nairobi Securities Exchange
ROA	Return of Assets
ROE	Return on Equity
ROS	Return on Sales
SPSS	Statistical Package for Social Sciences
US	United State
SBU	Strategic Business Units
BCG	Boston Consulting Group
FMCG	Fast Moving Consumer Goods
MFI	Micro Finance Institution

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

In line with Viceira and Ciechanover (2016), portfolio diversification is among the essential aspects that shareholders are trying to find prior to making resolution to venture in investments because of their outright association with overall monetary outcome. Philips (2014) pointed that business people venturing into diversified investments considerably lessen their subjection to unbearable possibilities with the aid of preserving a properly differentiated portfolio of asset and stocks. Though traders tend to have adapted the attitude of diversification for the portfolios of local stocks, they nevertheless appear hesitant to take up various global portfolio in spite of the vast readily available investments of economical funding for investing worldwide and the properly articulated remarkable advantages of worldwide portfolio diversification at short-term spheres (Viceira & Ciechanover 2016; philips, 2014).

Contemporary portfolio idea offers a normative method to traders to make choices to make investments their wealth in belongings or securities under chance. According to current portfolio theory, an appropriate diversification is the funding in one-of-a-kind asset lessons which have unbiased lower-growth alternations from every other (Markowitz (1959). According to Markowitz portfolio theory, funding have to be completed in several property which can be negatively correlated, as an instance the funding in ice cream and rain coats is an efficient funding because the investments hedges exclusive climate situations (Markowitz, 1953). In the theory of portfolio

management, diversified investments in stocks are assumed to support to unfold hazard over many securities may additionally specify best extensively (Fama, 1992).

Centum Limited diversifies its investments on eight distinct business lines (Centum, 2016). Geographically Centum has invested amounts exceeding US\$ sixteen million in Uganda in less than 2 years and are vigorously expecting to venture in possibilities from different regions in the African continent (Centum, 2016). Centum has continuously added stock market returns where its shares surpassed the Nairobi Securities Exchange (NSE) index with 40% yearly during years 2006 to 2010. In terms of scaling up the tangible properties in its running Centum had KShs. 11.8 billion by 30th September 2010.

1.1.1 Portfolio Diversification

Diversification denotes the ways of minimizing chances of investment risks by investing in a ramification of assets. In case the values of properties stagnate in prices in ideal synchrony, differentiated portfolios could have lower chances of experiencing losses as compared to weighted average threat of its constituent assets, and frequently much less risk chances than the least risky of its counterparts. In line with O'brien (2008) portfolio implies the amalgamation of property or securities. As a result, portfolio diversification is a method designed to reduce or minimize investment risks by mixing a variety of investments. Portfolio diversification is the exercise of distributing finances throughout various extraordinary investments.

Stiroh (2004) is of the idea that, in investment planning and finance, diversification improved cost influence through lower risk from diversification if it occurred; it lowered the needed risk premiums on un-insured debt. By consisting portfolio classes with

incomes earned as a result of unique market situations in a portfolio, a shareholder can shield against enormous losses. Brown and Reily (2009) conceptualized the model connecting risk and exposure in terms of micro-economic proxy variables that concentrate on the underlying sample of securities. As the number and classification of portfolios the portfolio risks tend to decrease. This implies that with the aid of investing in several and different securities buyers can keep away from the unique risks worried in individual companies.

Aragon and Ferson (2007) argue that the principle concept behind the classical measures of funding is to examine the go back of a managed portfolio over a few evaluation duration to the go back of a benchmark portfolio. The benchmark portfolio have to represent a viable funding opportunity to the managed portfolio being evaluated. It's far necessary to have some model for what components of a portfolio should result in better or decrease predicted returns. Portfolios might also or may not take at the mixture traits in their person elements. The purpose of investing in a portfolio is to cushion the investor from the changes in returns among the selected investment options. Investing in different investments improves a company's chances of earning a good return although this can't be guaranteed because of the uncertainty facing the investments.

1.1.2 Financial Performance

Birech (2011) defines performance as the execution of a given activity and attaining pre-decided results. Consistent with Brealey, Myers and Marcus (2009) financial performance refers to the approach of figuring out how properly an organization utilizes its resources from its functions and produce income for a specified fiscal period.

Financial execution in a business enterprise measures the consequences of policies and operations of any firm in economic terms. Monetary overall performance is normally derived from inherent financial statements as decided via the independent auditors (Johnson, 2001). There are different means of measuring monetary overall performance.

One of them is Return on Sales (ROS) which shows the amount earned by an organization in terms of its sales. Return on Assets (ROA) on the other hand establishes a firm's potential to utilize its assets and generate income while Return on Equity (ROE) uncovers what investors earn for their investments (Tangen, 2003). For a firm to obtain or acquire the preferred or prospected economic returns consistent with the planned goals/targets it is important to ensure and facilitate transparency and responsibility in all firm's operations. Chai (2011) made a vital opinion that in the modern dynamic and globally competitive environment, advancement is in the main due to focused international opposition, disjointed and challenging markets, and diverse and swiftly converting technology.

1.1.3 Portfolio Diversification and Financial Performance

Grube (2012) posited that investments are characterized by means of heterogeneity, including a series of geographical and sectoral submarkets that lack an imperative trading market. This is because the personal equity investor commonly holds a large part of fairness in his portfolio organization. Therefore, whilst properly achieved, portfolio diversification can enhance performance by way of smoothing out the bumps that arise all through tough investment environments. According to Oyatoye and Arileserre (2012),

the structure of an efficient investment portfolio enables the firm to diversify its risks thereby improving the earning ability of the portfolio.

Berger, Hasan and Zhou (2010) in their study of Chinese banks captured four dimensions of diversification as loans, deposits, assets, geography and established that they are associated with reduced profits and high costs. Olweny and Shiphoh (2013) contradicted the above findings that income diversification affects banks' profits significantly. Mukati (2012) posited that the threats confronted with the aid of a real estate investors fund supervisor differs from what the typical fund supervisor faces due to the truth that the threat in actual property investment control must issue within the legal responsibility facet of its balance sheet that includes benefit quantities for shareholder capital in addition to the reserves which might be essential for the funding. Grube (2012) mentioned that, relying at the respective prices of returns buyers can make viable decisions on how to distribute their portfolios between real and financial investments.

Tornell (2010) found that when there are uncertain surroundings in developing international locations, real zone companies may find it better to invest in much more liquid reversible property within the monetary sectors that are offering comparable or better rates or go back on their investments as opposed to on irreversible fixed resources. Investment companies invest in a diversified portfolio of assets to make money for their shareholders and investors. They employ professional fund managers to invest in a wide range of assets than most people could not practically invest in themselves and are responsible for the management of billions of shillings worth of assets on behalf of investors. Measuring portfolio performance has become an essential topic in the real

estate industry as it plays a very important role in the financial performance of their investments all over the world.

1.1.4 Centum Limited

Centum Limited is the largest listed corporation in East Africa region with more than 38,000 shareholders. It was listed at the Nairobi Securities Exchange in 1967. It's couples as a company and manager of financial investments and is placed as an investment canal where different traders can access diverse ventures and management know-how. Its portfolio is presently accounted to exceed US\$140 million and comprises wide range of private, listed and real property investments. It's investments in private equity portfolio is the most important asset, with terrific investments in the banking, insurance and beverage sectors. Its imaginative and prescient is to be Africa's essential investment channel, even as its task is to generate real and tangible wealth by using the channel through which buyers get entry to and build fantastic businesses in Africa. It's strategic objectives are: to upscale assets, underneath control, to achieve go back on shareholder funds which are consistently above market returns, to keep general running prices underneath 2.5% of property underneath control, to have a well diversified assets under their able management through Geography and to expand Centum's emblem equity and reputation with their key stakeholders.

Centum places its inner procedures, human beings, conversation and identification in their emblem to place centum as Africa's primary funding channel, strengthening internal process and capability where it has put together a completely sturdy management crew, with a numerous set of abilities which shows that they are very skilled in their regions of

specialization. Centum has additionally launched into lively portfolio control. Centum has also finished a rigorous appraisal of its investment portfolio and advanced extraordinary fee optimizing techniques which are within the procedure of implementation.

On geographical diversification Centum has invested over US\$ 16 Million in Uganda for a preceding period of 18 months and are aggressively targeting better opportunities in other parts of Africa. It has also focused management of assets by reorganization of the company into three segments – Private Equity, Quoted Private Equity, Real Estate & Infrastructure investments. Centum draws it's focus on sectors which have the following broad characteristics: Large, growing domestic and regional market that targets the households and private businesses, basic goods and services whose demand increases with the purchasing power, products and services which has got limited scope for import substitution, sustainable competitive advantage, with relatively high barriers to entry. It also values sectors that will do well in the inflation period so as to increase the purchasing power and balance the economic environment.

On geographical diversification centum has devoted across various Countries in East Africa and is actively projecting centered control of property. Centum's focal point are the sectors with the subsequent broader traits: massive and developing domestic and nearby market this is centered basically to households and personal agencies, basic commodities and offerings whose demand will grow with the purchasing power, services and products with confined import substitution in their scope, sustainable and aggressive benefit, with barriers which are relatively high to access and no longer replicable by a mere addition of capital, sectors with pricing strength with the intention to permit rate

will increase with inflation, and relative enterprise truth with a strong regulatory environment. Centum is among the winners of the Kenyan Champions of Governance (COG) Award 2012.

1.2 Research Problem

Prudent investment portfolio management ensures effectiveness, liquidity and safety within the use of resources among different objectives. According to Soderblom, 2011), the principal reason of holding diversified portfolio rather than a single investment is to maximize return while minimizing risk. Choi and Kotrozo (2006) pointed out that investment diversification is important in that it reduces the level of systematic risk incidental to a portfolio. At every decision purpose, the portfolio manager has a list of investment opportunities at hand and may decide whether to require a foothold supported market conditions and additionally the assessment of determinants (Morris, 2010). Diversification offers a secure and less risky earnings, economies of scope and scale, and the potential to leverage efficiency throughout product (Jonava inc, 2009).

Centum has seen tremendous growth in the last 5 years with market capitalization in the NSE rising from KShs.5.6B in 2009 to KShs.24.3B in 2014, a 334% increase. Nets assets grew from KShs.6.0B in 2009 to Kshs.24B in 2014, a 368% growth (Centum, 2016). Returns have been outperforming the NSE average for the last 5 years. It is the largest quoted Investment Company at the NSE. According to Centum (2016) the income statement and balance sheet summary showed that Centum's net earnings increased 25 in keeping with cent to sh9.9 billion in 2015 from sh7.nine billion earned in 2014. the consolidated earnings after tax in 2016 became Kes 9,947,630millions and in 2015 was

kes 7,942,432m. the organization had in their books a record of 106 per cent growth in their revenues for 12 months consolidated for the entire 12 months which ended in March 2016. The amount of Total assets for Centum was worth KES.51, 543M, KES. 41,265M and KES. 28,811M for years 2016, 2015 and 2014 respectively (Centum, 2016).

Locally, Sifunjo (2015) sought to determine the best and optimal portfolio size and mix on the Nairobi Securities Exchange; Mwangi (2014) investigated the Effects of Diversification on Portfolio Risk at the Nairobi Securities Exchange; Suva (2013) conducted a study on the effect of integration on investment portfolio diversification in East African stock exchanges; Karimi (2013) assessed the relationship between investment portfolio choice and profitability of investment companies listed in the Nairobi Securities Exchange. Accordingly, while there are procedures for the assessment of long term investments, these were not applied to property on a continuous basis like in securities or equities but only during acquisitions or disposals. The foregoing studies focused on different contexts and applied different methodological approaches to investigate various aspects of portfolio management leaving a wide gap on the relationship between portfolio diversification and financial performance in Kenya and particularly with a focus on Centum. The study seeks to answer this research question: What is the relationship between portfolio diversification and financial performance of Centum Limited?

1.3 Research Objective

To establish the relationship between portfolio diversification and financial performance of Centum Limited

1.4 Significance of the Study

In theory, this study will be of great importance since it will enrich the existing literature on portfolio diversification while bringing out contradictions and gaps in the theories.

Academically, the study findings will be useful in enhancing the understanding on the subject of portfolio diversification as well as portfolio management and open up new areas for further academic research to the academic fraternity.

The policy makers will obtain knowledge on portfolio diversification effect on financial performance and would therefore obtain guidance from this study in designing guidelines to the firms which are planning for successful portfolio diversification or are already in the process.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This section normally focuses on the applicable texts for acquainting the researcher with result, issues and deductions. This part of the research obtains insights from the work of different researchers who've additionally explored on this situation.

2.2 Theoretical Review

This is a set of interrelated standards, like a principle but no longer always so well worked-out. This study is guided by the modern portfolio theory, Markowitz portfolio theory and Boston Consulting Group Share -Matrix in an attempt to show the relationship between portfolio diversification and financial performance.

2.2.1 Markowitz Portfolio Theory

Markowitz Portfolio Theory proposed by Harry Markowitz (1953) is based on the premise that in a homogeneous intensity of anticipated return, an investor will select the investment with the least amount of hazard. The shareholders value the expected losses in terms of an investment's discrepancy. For every funding, the investor can quantify the investment's predicted go back and the possibility of those returns over a specific time horizon. Investors are searching for to maximize their utility. Markowitz' paintings on an character's investment conduct is essential now not only whilst looking at man or woman funding, however additionally within the context of a portfolio. The threat of a portfolio takes into consideration every investment's danger and resultant revenue as well as the funding's relationship with the opposite investment opportunities in the portfolio.

Risk of a portfolio is stricken by the threat of every portfolio investment in relation to its income, in addition to every funding's correlation with the alternative investments within the portfolio. A portfolio is taken into consideration efficient if it offers the investor a better anticipated return with the equal or lower level of chance in comparison to some other funding (Fama, 1992). Whereas an efficient frontier illustrates each effective portfolios as compared to their risks and returns, every one of the available portfolios might not be suitable for each and every stakeholder. It is worth to note well that during the foundation of any investment idea, outcomes and threats are the crucial goals. The ideal portfolio, thus, is the factor on the efficient edge that is lateral to the investors.

2.2.2 Modern Portfolio Theory

Modern Portfolio Theory (MPT), a proposition by Markowitz (1959) is principally grounded on the concept that risk-averse traders can assemble a combination of assets known as portfolios in order to optimize or increase anticipated return in a given stage of market associated risk, underlining such risks is an intrinsic component of higher returns. This theory tries to capitalize on anticipated portfolio return for a given quantity of portfolio risk, or evenly minimize risk for a given level of predicted go back, through cautiously deciding on the proportions of numerous belongings. The fundamental concept at the back of Harry Markowitz's (1959) MPT shows that assets in an investment portfolio must now not be decided on their personal merits.

It is quite crucial not to forget how each asset modifications in relative to how each other asset in the portfolio makes modifications in price (Kaplan & Schoar, 2005). Through investing in more than one inventory, an investor can acquire the advantages of

diversification, particularly a discount inside the riskiness of the portfolio. MPT quantifies the blessings of asset diversification, additionally referred to as now not setting all your eggs in one single basket (Kaplan & Schoar, 2005). The threat in a portfolio of diverse character stocks will be much less than the risk inherent in keeping someone of the individual stocks separately.

The theoretical motive for investing in various assets magnificence inclusive of stocks, bonds and different securities is to enhance the danger and benefit function of an investment portfolio with hopes that the assets will provide better and absolute returns at the same time enhancing portfolio diversification (Bodie, 2005). By using combining one of a kind assets whose returns are not flawlessly definitely correlated, MPT seeks to lessen the total variance in a portfolio go back. MPT further assumes that investors are rational and that the markets are efficient. Effect of portfolio composition along green frontier is decided by way of the level of hazard taken via the buyers and returns collected out of the portfolio mix depending on market overall performance. A portfolio composition with good performing securities and good investment strategies will yield high returns which translates to high performance.

2.2.3 Boston Consulting Group Share -Matrix

The Boston Consulting Group Share -Matrix is a portfolio analysis model developed in the mid-1960s by Bruce D. Henderson for the Boston Consulting Group, a leading global management consulting firm (Technical Expert, 2011; Wikipedia, 2012c). The BCG matrix, which is, the earliest, simplest (Hofer and Schendel, 1994) and well known as the simplest portfolio model to gauge the best performing asset classes. The company can use this model to give priorities to the portfolio which is giving better returns. (Drummond

& Ensor, 2011; Technical Expert, 2011). Hax & Majluf (1990) supported this models objectives whereby the strategic managers can be able to easily follow the product life cycle of any portfolio and identify their cash flows. Therefore, a more promising portfolio will be given the necessary resources which will support it's life cycle to be complete successfully. Wikipedia (2012c) was able to broaden the importance of the model to a company which include resources allocation, as a financial analytical tool in brand marketing, product management, strategic management, and portfolio analysis.

According to Hill & Jones (1989), the methodology behind this model has got three principal steps which are ; Dividing the company into Strategic Business Units (SBUs) and monitoring the long term progress of each; Comparing the different SBUs by assigning a matrix to each which indicates the relative prospects of each and Developing a clearer strategic objectives with respect to each SBU. The company can visually display it's yearly portfolio and assess its performance compared to others. This BCG model appears in a 2x2 (4 cells) matrix where each SBU is positioned in each cell, indicating it's revenue and cash utilization propensity. The portfolios are arranged to give a snapshot of how they are doing and the benefits they are giving to the company. Of all the characteristics of a market, Aaker (1995) was able to precisely explain why growth factor is considered as a desirable indicator of any portfolio. He stated that: Growth is perhaps the best performance measure of any product life cycle and a crucial key to strategic consideration (Hax & Mailuf, 1990); A bigger market share is gained when a company has the dream and desire to invest in a competitive package . This package is well taken care of to generate more resources. Furthermore, competitors in the industry

may react less harshly to the loss of newly attained customers than to the loss of their long term existing and well established customers

In a growing market, demand often is in excess of supply; excess demand will support and dictate premium prices and profit levels. Therefore, business managers are supposed to consider very carefully the growth opportunities of any portfolio they are considering of setting up. There also call for the need to frequent reviewing of of the portfolios so as to know which one to discontinue or develop. The BCG Matrix can also help in identifying any strategy mistake done. Growth rate is a key base in comparing the performance of each business units. An annual growth rate which is above 10% is considered high and SBUs in this section of the quadrant are said to be doing better, while those below the 10% are in low growth market. The growth rate depends on the industry where the company is in competition.

2.3 Portfolio Diversification and Risk Adjusted Financial Performance

Portfolio diversification comprises a key subject matter in the field of finance and investments. Diversification incorporates an exercise that it isn't unknown to people even earlier than its acquisition from portfolio idea. In line with Ahuja (2011), the goal of any portfolio can either be for capital profits or for simple profits, or a mixture of both. A boom-orientated portfolio is a set of investments decided on for their price appreciation potential, even as an income-orientated portfolio consists of investments decided on for his or her cutting-edge income of dividends or hobby. Majority of portfolios are diversified to shield them from loss of individual securities or category of stocks.

Any investment has an associated risk with it. The more the returns expected from the investment the more the risk attached. Income diversification could increase risk-adjusted

returns of investments. A firm will handiest invest if the discounted yield exceeds the value of the project. All through investment emphasis have to be placed on the importance of interest charges in investment choices. Adjustments in interest prices should have an impact on the extent of planned investment undertaken via private area companies inside the economy (Malkiel, 2012). DeYoung and Rice (2004) did an investigation on the relationship between non-interest income and financial performance in the United States banking sector for the period of 1989 – 2001. They were able to get the findings that a negative relationship exists between non-interest income and risk-adjusted financial performance of the U.S. banks.

In a study analysis done by Murumba, (2002), the study reveals that in making any investment decisions, the investment managers are a major factor on their own that influences the decision making process. This means that how risky or less risky the securities are will be determined by their knowledge and assertiveness. As a result, portfolio evaluation includes reading the portfolio as an entire rather than relying exclusively on security evaluation, which is the analysis of particular sets of securities. Even as the risk-return profile of a protection relies upon totally on the safety itself, the chance-go back profile of a portfolio relies upon not only at the factor securities, however also on their mixture or allocation, and on their diploma of correlation (Ahuja, 2011). Investor looks forward to getting good return for their investment as a compensation or reward for taking a risk in an investment. Investors tend to refer to past performance in the market while making investment decision (Tony Chieh-Tse Hou, 2012).

2.3.1 Asset Portfolios

To gain diversification, the venture managers strategy is to invest in diverse belongings that may generate best returns even as keeping risks at the lowest. In their study, Gregory and Whittaker (2007) reported that venture managers look for appropriate number of assets in an inefficient market where information obstacles on threats and return evaluation can offer essential problems to the management of the investment. In addition, within the property portfolio the switching of funding among resources is multifaceted via excessive transfer prices which need to be taken into consideration inside the putting of policy. In an investment illustration Cass and Stiglitz, (2011) funding is not just about choosing stocks, but approximately choosing the right combination of stocks among which to distribute the resources.

Gregory and Whittaker, (2007) argues investing in different assets by one company, which are not perfectly correlated gives a standardized returns whereby when one asset is declining in performance returns, another asset in the portfolio is increasing in the returns for the same time period. The asset allocation techniques majorly fall within the two distinct strategies: Strategic asset allocation and Tactical asset allocation (Tony Chieh-Tse Hou, 2012). This classification of portfolio assets has seen increased managed fund numbers which are offerings that convenient access to the fixed income asset class, retail and institutional investors. A wide range of investment choices and classes of fixed income securities are easily available for any investment decision.

The goal of an asset allocation strategy is to identify these influencing factors and the ability to allocate resources appropriately. A study done by Michuku, (2012) found out

that there exist needs among investors for real investment trusts because they considered offering more liquid investment vehicles that formed part of a well-diversified investment portfolio. Omondi (2009) in investigating liquidity hazard and portfolio control in Centum investments concluded that shareholders responded to the liquidity surprise perceptively by enlarging their holdings by way of liquidating bank loans as well as through selling stocks within the financial market.

2.3.2 Inflation Rate

Inflation rate is a general increase in price levels of the products in an economy. The higher the rate of inflation, the more the loss of value of a currency in a given economy. Inflation comes from domestic factors (internal pressure) and also overseas factors (external pressure) (Edwards, 2002). Changes in the expected rate of inflation would influence nominal expected cash flows. Relative prices change along with general inflation, there can also be a change in asset valuation associated with changes in the average inflation rate. Due to the increase in inflation, companies overhead cost increase causing their net returns to decrease.

During the period of high rate of inflation there is a lot of money in circulation which makes the currency depreciate in its value. According to Lingnan, (2011) inflation's effects on an economy are various and can be simultaneously positive and negative. Inflation can have negative effects in that it brings about an increase in the opportunity cost of holding money for any given period, creates uncertainty over future increase in the price levels which may discourage investment and savings, and if it becomes more and more rapid, it creates shortages of goods as consumers begin Hoarding out of concern that prices will continue to increase more in the future. Positive effects include

that Central banks are able to control the circulation of money in the economy and this brings about balanced economy, Central Banks can also adjust real interest rates (to mitigate recessions), and hence encouraging the investments in non-monetary capital projects.

Nyambok (2010) in a study of the relationship between the overall inflation rates and the liquidity of companies quoted at the Nairobi Stock Exchange. Her study emphasized the relationship between stock market liquidity as measured by the bid-ask spread and the inflation rate. Inflation leads to an economic recession. Therefore, investors may prefer such a period to invest the money in excess of their pockets in order to earn a return on future. It is important to determine the relationship between the returns that investors receive on the investments during different inflation rates. It is important for the investors to understand well their country's level of inflation before they make any decision. Most investors aim at increasing their long term purchasing power which can be eroded by rising inflation.

2.3.3 Gross Domestic Product

Gross Domestic Product denoted as GDP, is an economic measure of an economy's performance which enables a comparison basis between different countries. It represents the dollar value of goods and services at any given year of a country. According to World Bank (1989), this growth is higher for those countries with relatively higher investments. Investments have an impact on the Gross Domestic Product. This is an excellent way of describing the size and growth of an investment returns to be expected by the investors.

Jarita (2009) examined the relationship between Foreign Portfolio Investment and Malaysia's economic performance and found that economic growth causes changes in foreign portfolio investment and its volatility and not vice versa. Their findings suggest that economic growth is the major pull factor in attracting portfolio investment into the country. The study recommends a healthy economy for sustainable growth so as to built investors' confidence in the economy. Ekeocha Patterson (2008) opined that Foreign Portfolio Investment though volatile in nature is an important source of fund to support investment in an economy that has a wide saving-investment gap

2.4 Empirical Review

2.4.1 Global Studies

Boscaljion, Filback and Cheng-Ho (2005), proposed that an arbitrarily chosen portfolio having a set 30 stocks less selected from leaders in the industry and equally weighted stocks or shares could offer the same diversification level as the S&P 500 index. Zulkifli, Basarudin, Narzaidi and Siong (2008), found that an average of 15 stocks are sufficient to diversify away a fulfilled quantity of diversifiable chance. Duchin and Levy (2009), additionally concluded by citing that the $1/n$ method for individual portfolios outperforms some other renowned strategy for portfolio choice, called markowitz's mean-variance rule. Alekeviciene (2012) achieved empirical studies to measure the diversification effect of differently weighted portfolios. It turned into accomplished at the Lithuanian stock change market and was based on every day stock market prices all through 2009-2010. They found that through forming of naïve portfolios, the diversification impact can be slightly larger than forming a portfolio in a different way – weighted portfolios via capitalization (Alekeviciene, 2012). Zulkifli *et al.* (2010) investigated the top-rated wide

variety of stock which can help the investor to maximize the advantage of diversification of their investment.

2.4.2 Local Studies

There are three basic needs which acts as drivers for any investment. They are : income, capital preservation and capital appreciation. The portfolio diversification and how to make very optimal resources allocation in several investments alternatives is a day to day discussion in the Kenyan context. Mwangi (2014) investigated the effects of diversification on portfolio threat at the NSE. The information acquired from the NSE each day on share prices for the preceding three years. They established that a weighted 7 securities portfolio make a good diversification for the investors than huge quantity of securities whose returns are combined. The entire risk for a character inventory is approximately 11.03 per cent on average. It's far apparent from the take a look at that once wide variety of securities accelerated inside the portfolio then the risk is decreased. Safety portfolio average hazard is 9.20 as compared to at least one safety average chance eleven.03.

Suva (2013) investigating the effect of integration on investment portfolio diversification in East African stock exchanges. The study was based on the Nairobi Securities Exchange, Dar-es-salaam Stock Exchange and Uganda Securities Exchange with the target population of all the companies whose common stocks were traded over the sample time period. Covering a period of 100 months between January 2000 and April 2008, the researcher analyzed the pair-wise index correlation structure, co-movement and co-integration of the markets' Paasches index series. The findings asserted both co-

movement and divergence of the index pairs in the first and second study sub-periods, signifying irregularity of the investment diversification benefits in both cases. Further, each index pair was found to have reacted in its own way to the economic shock distorting the dependency structure. This study focuses on number of asset classes, inflation rates, gross domestic product and the risks involved in any diversification of assets.

2.5 Conceptual Framework

A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. This study is based on that financial performance or the Asset returns can be a factor of the asset portfolios, the prevailing inflation rate in a country, the growth in GDP and adjusted financial performance. For good financial performance the investing company must be smart in the strategies, prevailing market conditions and knowledge on various said elements. Below is the representation of the conceptual framework which will be used for the study.

Independent Variables

Dependent Variable

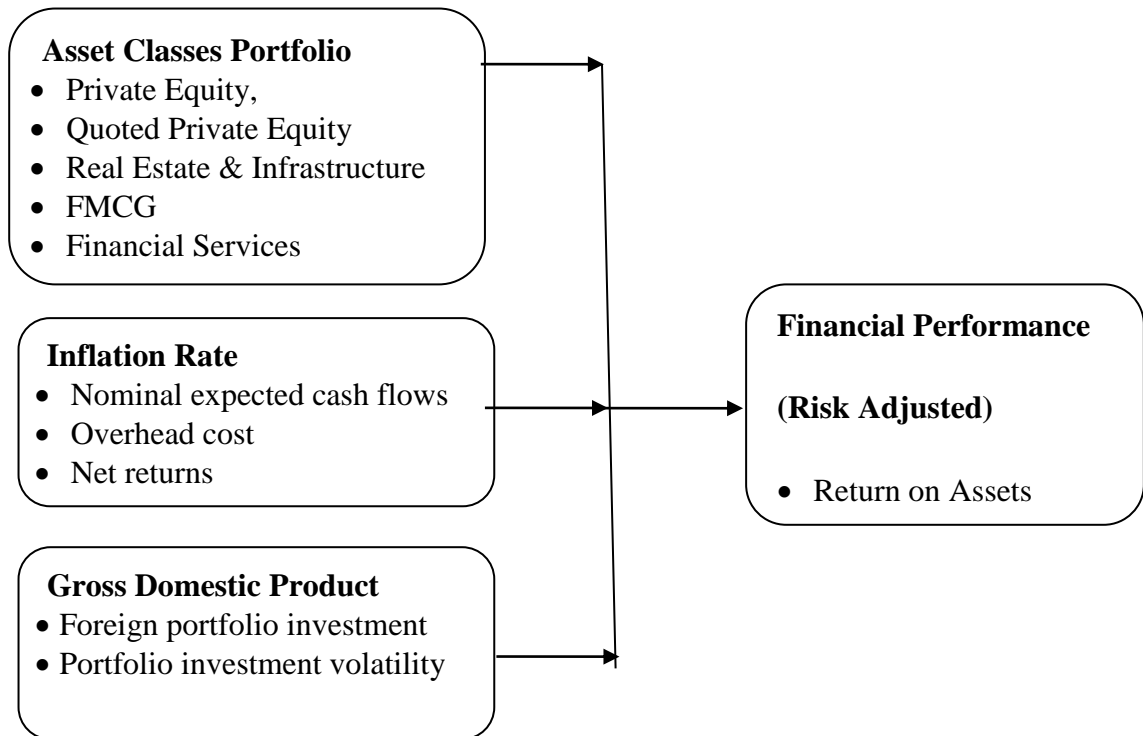


Figure 2.1: Conceptual Framework of Financial Performance

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The chapter guided the research methodology used in carrying out the study. It discusses and described the research approach, population, data collection and data analysis in the study carried out.

3.2 Research Design

This research adopted a descriptive design. In line with Cooper and Schindler (2011), descriptive studies gather information from a population and assist the researcher in obtaining explanation of a given occurrence by inquiring individuals' opinions, mind-set, feelings or ideas. This technique involves the extreme research of problem solving situations in which issues are applicable to the studies trouble. The underlying concept is to pick out several focused cases where an extensive analysis diagnosed the possible alternatives for fixing the research questions on the basis of the prevailing answer implemented in the decided cases looked at. The research sought to explain and identify a topic, regularly by using and developing a clear picture of organizational issues and possible solutions.

3.3 Population

This is a set of financial statements that the researcher perused in order to gather the required information necessary for the study. According to a study done by Ngechu (2004), a population can be people, services, elements, events or groups that are being investigated. Population selection is a very crucial part in any research because the

researcher relies on their information. The respondent was Centum Limited which has various Strategic Business Units created for the purpose of diversifying its portfolios. This choice allowed the researcher to have a better insight on the relationship between portfolio diversification and financial performance of the company under the study.

3.4 Sample Design

In order for the researcher to give generalized findings, sampling design becomes very important. It's where the sample is said to be representative. Representativeness is where a wider range of attributes required are well outlined. According to Shaughnessy (2006), contacting everyone in a very large population is practically impossible, and the researcher usually selects a subset of population to represent the population. The researcher purposively chose Centum limited since it has different SBUs built on portfolio diversification.

3.3 Data Collection

This study collected secondary data from the audited financial and published statements covering 2007 to 2016, a period of 10 years. Using a data collection sheet, the information on portfolio diversification and financial performance of Centum Limited was collected from the NSE, CMA and the Company's records, websites and offices. The study utilized secondary data on investment returns, portfolio risks, investment assets and firm liquidity obtained from the financial statements of Centum Limited and covered a period of 10 years.

Time series panel data was employed because it helps to study the behavior of the sample firms over time and across space. This time series panel data included the selected

aspects of financial distress and performance of the banks over the ten year period (2007-2016). Relevant ratios for the company and for each year was determined for portfolio diversification and financial performance of Centum Limited with the data frequency being yearly. Centum was chosen because of its portfolio diversification, geographical coverage, large customer base, profitability levels and easy access to information.

3.5 Data Analysis

The statistics obtained was evaluated using descriptive methods and inferential statistics. Prior to analytical process, the statistics will be classified and coded to requisite value and precision. It was then processed using Statistical Package for Social Sciences (SPSS) to help in the analysis. The findings from the analysis were organized, summarized and presentations are in tabular forms and charts appropriately. The multiple linear regression analysis was applied stating the Company's return on assets as a function of portfolio diversification of Centum. In this study the multiple regression model had one dependent variable (Y_t) – financial performance/profitability (ROAt) of Centum and three independent variables including Asset classes, Inflation rate, and Gross Domestic Product(GDP) depicted by X_1 , X_2 , and X_3 respectively. From the general regression equation [$y = f(x)$], the regression model was given by the following equation:

$$Y_t = \beta_{t0} + \beta_{t1} X_{t1} + \beta_{t2} X_{t2} + \beta_{t3} X_{t3} + \varepsilon_t$$

Where;

Y_t = Risk adjusted financial performance (ROA) for financial year t

α = Constant term

X_{t1} = No. of assets classes for financial year t

X_{t2} = The inflation rate for financial year t

X_{t3} = Gross Domestic Product (Growth) financial year t and

ε_t = Error Term

t = time in years (1-10)

Further, β_{t1} , β_{t2} , and β_{t3} = Regression Coefficients at years t and ε = Error term. As such, regression equations were extracted. Analysis of variance (ANOVA) from SPSS regression output was then used to determine the level of significance of the model using the F-statistic at 0.01 significance level. The t statistic test was also determined and give the impact of each predictor variable – a big absolute t value and small p value suggests that a predictor variable is having a large impact on the criterion variable.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis of the relationship between portfolio diversification and financial performance of Centum Limited. The independent variable includes; the company asset classes' portfolio which for the uniformity due to variation of different portfolio over years, the analysis took the quoted private equity, Quoted Equity ,Real estate and infrastructure, Fast Moving Consumer Goods and Financial Services portfolios. Other factors which are the input into financial performance that the analysis considered as independent variables are the external macro economic factors which included; inflation rate and Gross Domestic Product (GDP %). The dependent variable analyzed was risk adjusted financial performance measured in terms of Centum Limited Return on Asset as dividend of annual income and average total asset. The study took a period of 10 years (2007 to 2016 financial year) to develop a forming trend between the company's portfolio diversification as a predictor of financial performance over the years. The chapter is organized in terms of descriptive statistics presented in tables and charts and inferential statistics tested using regression model.

4.2 Descriptive Statistics of portfolio diversification and financial performance of Centum Limited

This section presents the analysis of relationship between portfolio diversification and financial performance of Centum Limited. The descriptive analysis included; portfolio diversification of Centum Limited, changes in portfolio between 2007-2016, inflation

rate, Gross Domestic Product, adjusted financial performance, income, average total asset and return on investment. In the presentation of the descriptive analysis, the researcher used line graphs to show changes in various financial activities over years.

4.2.1.1 Portfolio diversification of Centum Limited

Portfolio is an investment collection owned institutionally by Centum Limited. The portfolio composition investment in Centum included; financial services, fast moving consumer goods, real estate and stock, quoted and unquoted securities.

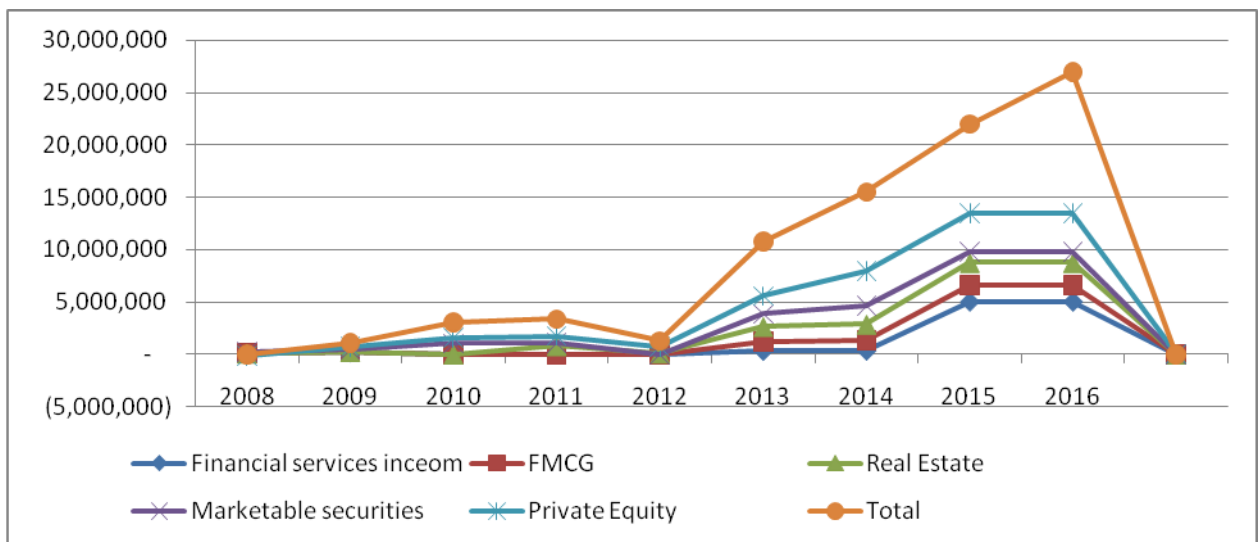


Figure 4.2: portfolio diversification and financial performance of Centum Limited

‘000

The study established that before the year 2009, Centum Limited concentrated its investment in marketable securities (quoted equity) and private equity (unquoted). The year 2009 was therefore a turning point when the company started diversifying its portfolio. By 2010, it clearly emerged that Centum Limited diversified further its portfolio by including investment in; Financial Services, Fast Moving Consumer Goods

(FMCG) and Real Estate and Infrastructure apart from marketable securities and private equities. The portfolio performance dropped in the year 2010 but immediately thereafter took a positive trend with return in private equity taking the lead followed by marketable securities then Real Estate and FMCG and the least being financial services. In the years 2013, returns from Private Equity had positive tremendously growth compared to other portfolios but later on predicatively normalized in the year 2014. The normalization could have been occasioned by the portfolios stabilizing in the market after marketing them.

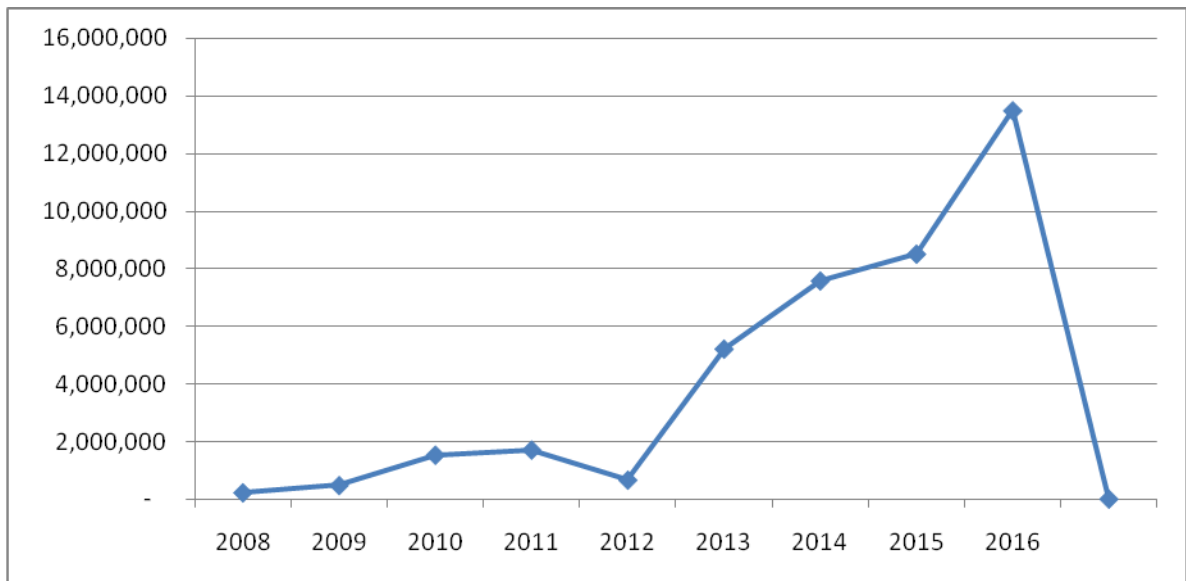
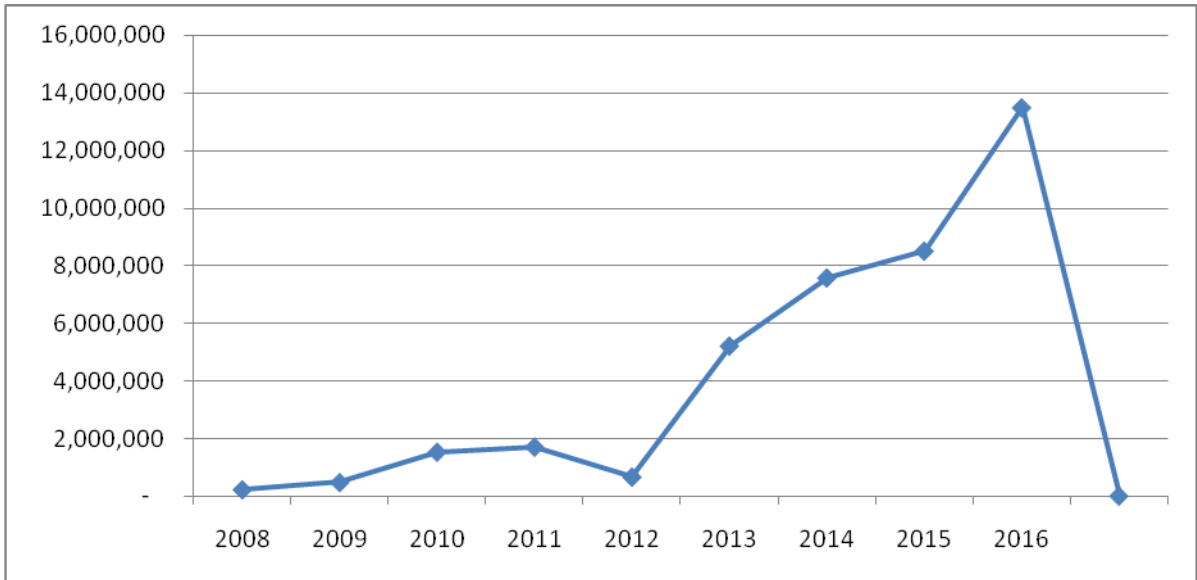


Figure 4.3: Centum Limited Changes in Total Portfolio Diversification

It is important to note that although all other portfolio remained constant after the year 2014, the total returns on portfolio increased with a further predictive growth in the coming years. This finding indicated that the investment returns of Centum Limited was possible because of the contribution of the other portfolios introduced in the company investment. Graph 4.3 indicated dome growth between 2009-2012 and also 2012 and 2015 with increased in growth in 2016.



4.2.1.2 Centum Limited Adjusted Financial Performance 2007-2016 FY

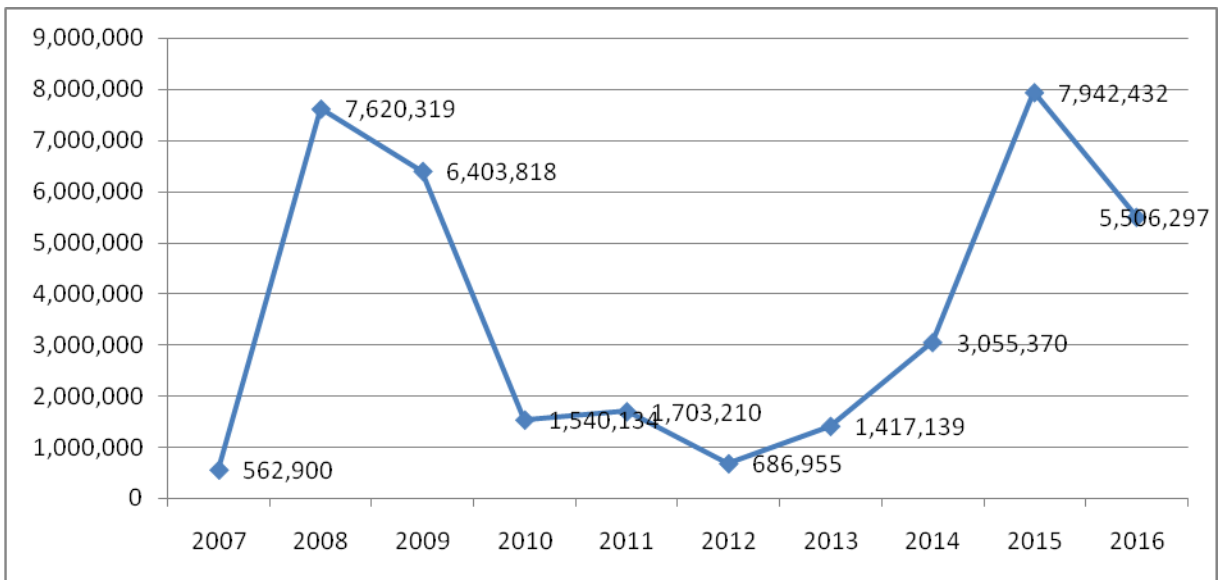


Figure 4.4: Centum Limited Adjusted Financial Performance 2007-2016 FY ('000)

Since income diversification can increase risk-adjusted returns of investments. Adjustments in interest prices have an impact on the extent of planned investment undertaken by Centum Limited within the prevailing economy. The findings from the

study established a U-turn on Adjusted Financial Performance. In the year 2007, Centum had adjusted return of Kshs. 562,900 which exponentially grew to Ksh. 7,620,319 which also drastically dropped and again taking a U-turn in 2011 which steadily improved till 2015 and slightly dropped in 2016.

4.2.2 Inflation Rate between 2007-2016 Centum Limited Financial Year

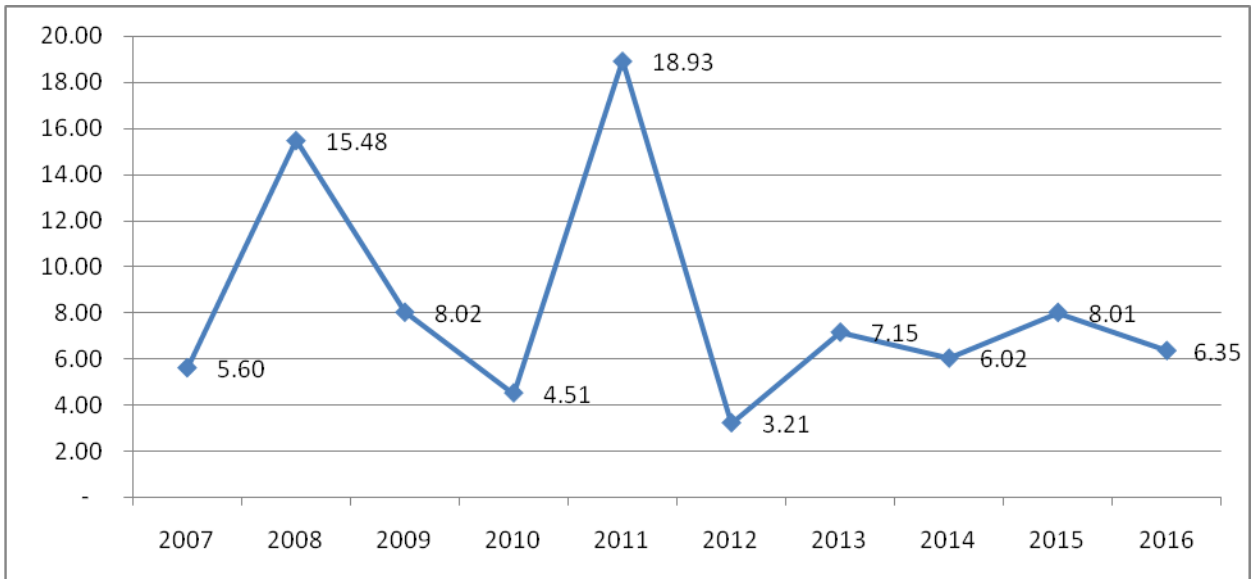


Figure 4.5: Inflation Rate 2007-2016 Centum Limited Financial Year

Inflation rate is an important macroeconomic issue that investors consider in their choice of investment. In the year 2007 the inflation rate was 5.60% followed by a sudden rise to 15.48% in 2008 and a drastic drop to 8.0% and further drop of 4.51% in the year 2010. There was another drastic rise to 18.39 in the year 2011 and another drop to 3.2% with a slight rise to 7.15% in the year 2013 and normalizing between 2014 to 2016.

4.2.3 Gross Domestic Product 2007-2016 Centum Limited Financial Year

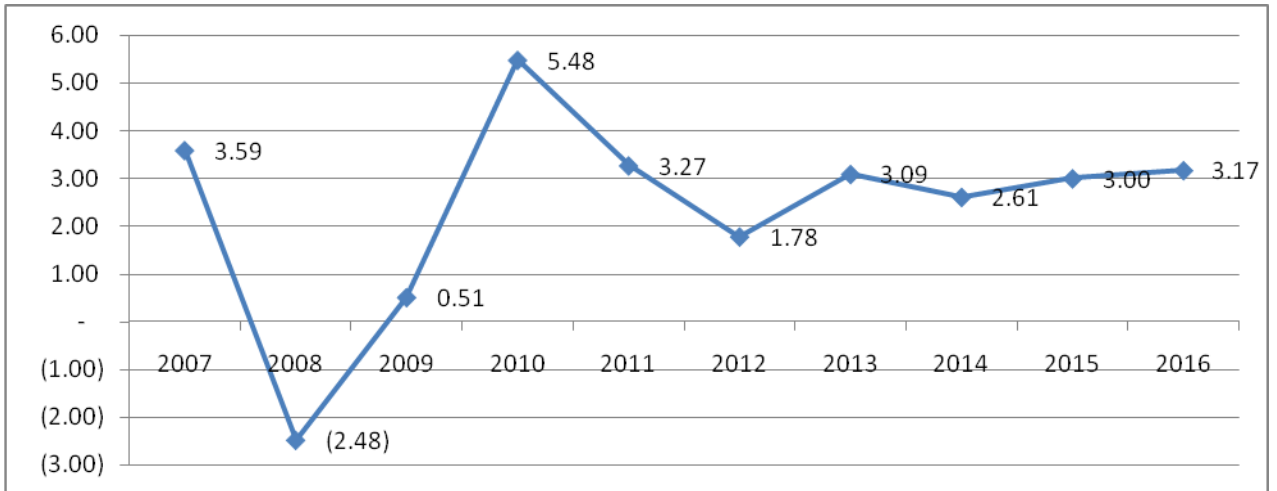


Figure 4.6: Gross Domestic Product 2007-2016 Centum Limited Financial Year

GDP growth is a quantifying measure that emphasizes on any increase in citizens welfare and social changes taking place in an economy. Sustained increase and better welfare of an economy together with the changes in structure; better health, improved literacy levels, and good demography; and fair distribution of income directly affect investment portfolio that an investing company could be pursuing. In the long run, as this economic transformation evolves so do social, political, and cultural norms. The GDP of Kenya was 3.59 in 2007 and sharply dropped to -2.48% in 2008 attributed to post election violence which rocked the country after contested 2007 presidential election. The GDP slightly improved in 2009 to 0.51% and exponentially grew to 5.48% before slightly dropping to 3.27 in 2011 and normalizing to an average of 3% between 2012 to 2016. These quantifiable changes in GDP had direct contribution to Centum ROA as a measure of financial performance.

This finding is supported by Studies which was conducted in India to critically establish the effect of stock prices of listed companies will have on the gross domestic product,

inflation rate and interest rate for the period of 1997 to 2009. Stock market index was found to be a better proxy for stock prices in the model. Regression model was used in order to analyze the Data and the findings indicated that the macroeconomic variables in the study fully explained the volatility in stock prices with a percentage of 95.6%. Conclusion in the study found that Interest rates and inflation rates positively affected stock prices whereas GDP negatively influenced or affected stock prices (Reddy, 2012).

The finding is further supported by a comparative study which was done on four Anglo Saxon economies which were sampled from different continents of the world for the period between 1959 to 2010. The countries which were found better placed for the study to give a better representation were US, UK, Canada and Australia. The study was mainly done to seek the cross country mechanics on how the transmission for volatility in the four countries. The study employed the GARCH chart model. The study concluded that cross mean spillovers from Gross Domestic Products to returns of stock markets were well depicted and outlined as part growth of the US towards the stock market. The US and Australia had very specific Crossovers mean spillovers but the US had the greatest concentration and impact of all the three economies. Co volatility was also confirmed to have an effect on stock returns and growth of GDP for all the countries of interest (Karunanayake *et al.*, 2012).

Last, (Patrick, 2013), did a study in Kenya determined to see whether macroeconomic variables significantly influenced performance of deposit taking microfinance institutions in Kenya. The findings indicated that three macro- economic variables which are economic growth being measured by GDP, interest rates and Inflation-CPI can determine in a larger extent the financial Performance of the MFI. The study found that

increased levels in GDP can lead to increased MFI performance can be determined by ROA . Also that increased interest rates can lead to a reduced ROA. The numbers of financial years under which the MFIs have been operating were also very important in the study. This is because they had a positive effect on the MFIs financial performance.

4.3 Centum Limited Financial Performance

4.3.1 Centum Limited Income 2007-2016

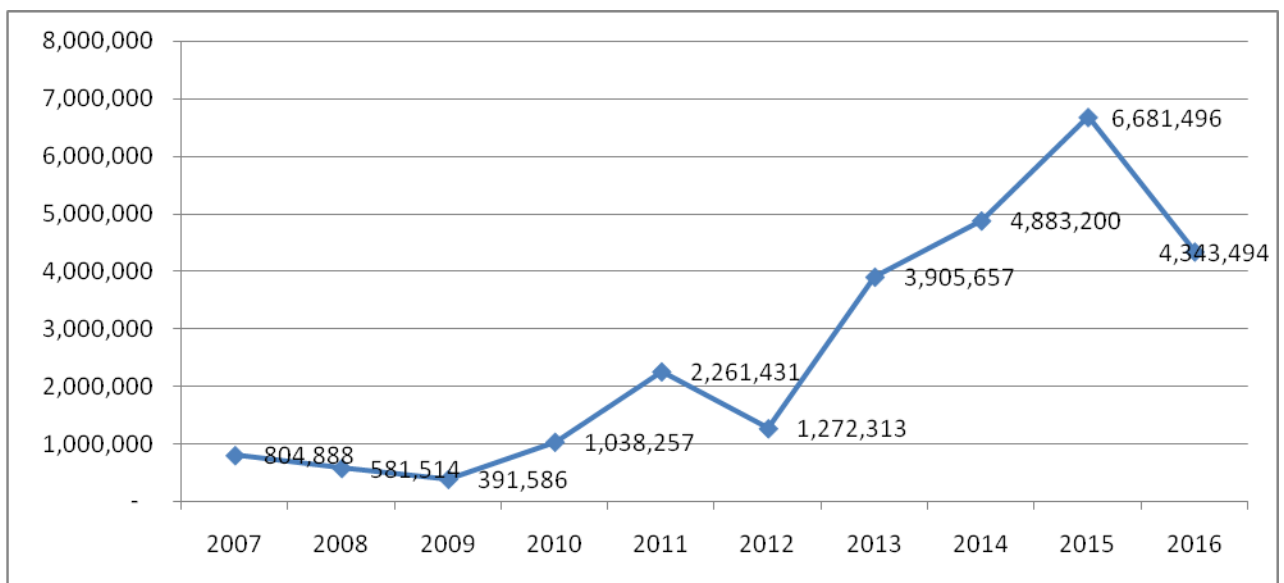


Figure 4.4: Centum Limited Income 2007-2016 ('000)

Centum Limited had a steady and consistent improved income of Kshs. 804,888 in 2007 and steadily improved to Kshs. 6,681,496 in 2015 and slightly dropped in 2016. The improvement in income was consistent with diversification of its portfolio in the year 2010 indicating that portfolio diversification improves firms' income. The diversified portfolio brought in various income streams including quoted equity, unquoted equity, Fast Moving Consumer Goods, Real Estate and Infrastructure and financial services.

4.3.2 Centum Limited Total Average Asset 2007-2016

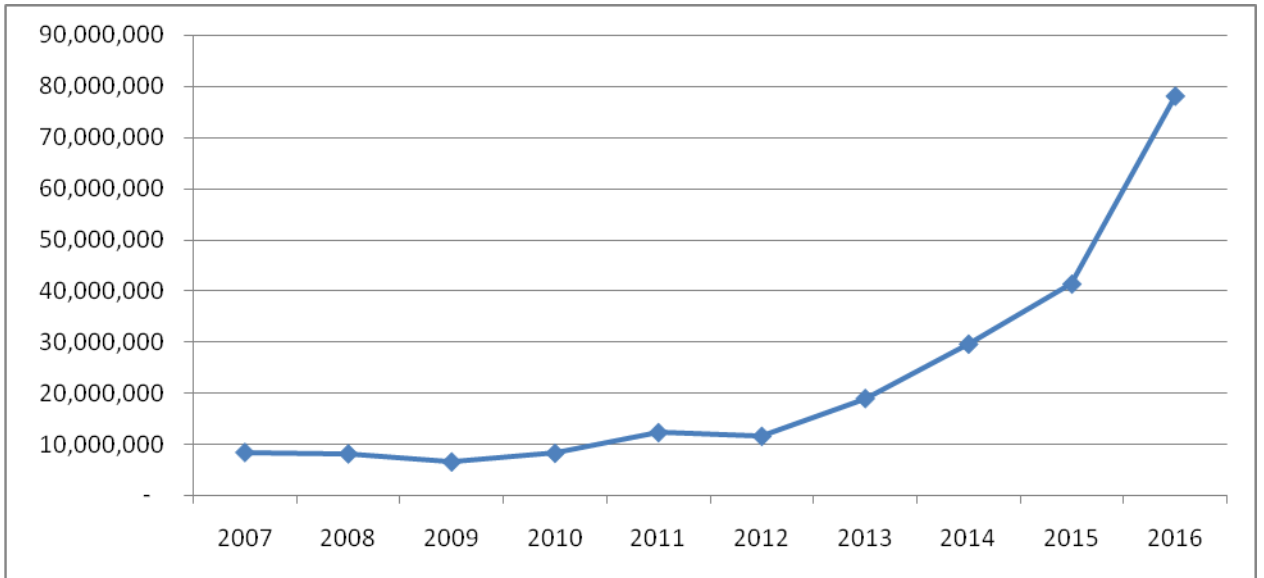


Figure 4.5: Centum Limited Total Average Asset 2007-2016

The study established that Centum Limited total asset exponentially grew from less than Kshs. 10,000,000 in the year 2007 to Kshs. 80,000,000 in the year 2016. This growth almost took the shape of the income interpreted to be associated with portfolio diversification in the company. There were new asset acquired to run the newly created investment portfolio showing that diversifying portfolio contributes to acquisition of new asset which accumulatively enables the firm to own both current and fixed asset which are both convertible and also used in conversion to income. Centum ltd has an advantage of better mix of their portfolios which are perfectly uncorrelated in order to get standardized results, in that when one portfolio is declining in performance the other one or others are giving positive returns. The loss is finally smoothed out by the profits generated by good portfolios over the same time period helping Centum to quickly grow. This combination of portfolio assets increases the numbers of managed fund that

provided convenient access to the fixed income asset class to the firm. This also enabled Centum Limited to have a wide range of portfolios for diversification and several options and classes of fixed income securities which are riskless compared to other company portfolios.

4.3.3 Centum Limited Financial Performance (ROA) 2007-2016

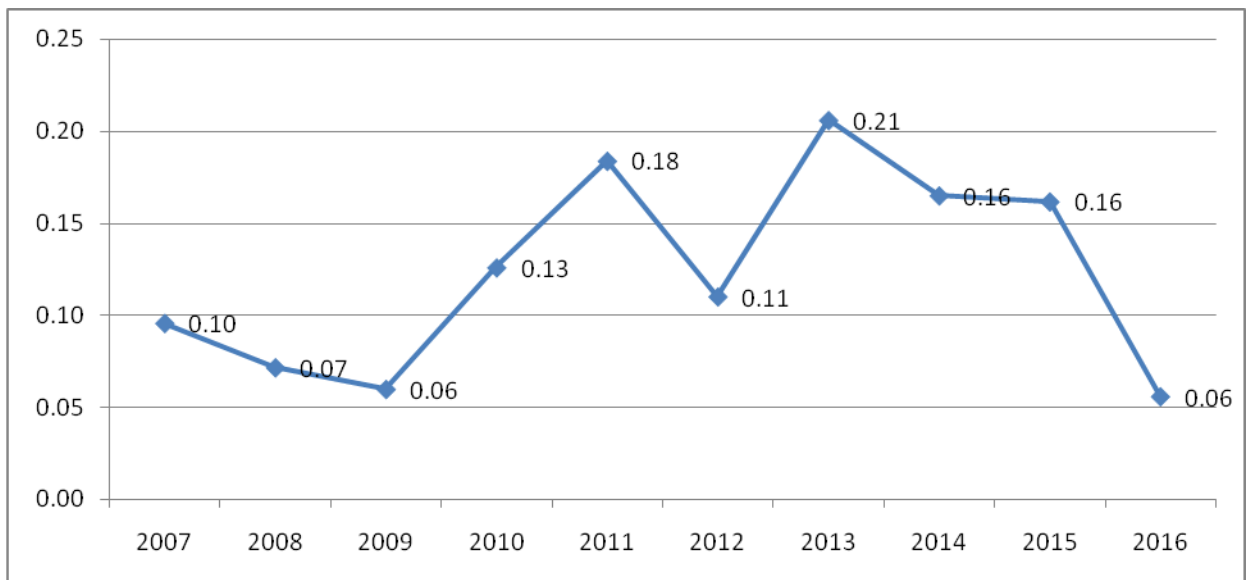


Figure 4.6: Centum Limited Financial Performance (ROA) 2007-2016

The study used Return on Asset as a measure of Centum Limited financial performance. The Return on assets (ROA) is considered the most accurate in measuring firms' financial performance. The study established low ROA ratio of less than 0.3 in each of the financial year. The least ROA were recorded in 2009 and 2016 at 0.06 where the highest was recorded in 2013 at 0.21. this finding is supported by Kamwaro (2008) found out that investing in bonds markets, real estate and infrastructure, equity capital and size of the company have a positive impact on financial performance of unit trusts and also Odhiambo (2013) did a study on the association between portfolio diversification and

financial performance of deposit taking Saccos in Kenya authorized to operate in Kenya by Nairobi County. He found out that Portfolio diversification which was measured by working capital management under the current ratio, debt ratio, cash conversion cycle turnover and growth influences the financial performance of Saccos positively.

Further study that supports the finding was conducted by Kimeu (2014) who undertook a descriptive study to find out the Impact of portfolio composition on financial performance of investment companies listed with Nairobi securities exchange. He conducted a census covering a duration of 3 years running from 2012-2014 for the companies listed by in the Nairobi Securites Exchange. He used a secondary data collection method and applied a multiple linear regression model with an operation of least Squares method just like Kamwaro (2008). His conclusions and those of Kamwaro were in agreement.

4.4 Relationship between portfolio diversification and risk adjusted financial performance

The main aim of this study was to analyze the relationship between portfolio diversification and financial performance of Centum Limited. The study analyzed the following portfolios at Centum Limited; Real Estate, Financial Services, Marketable securities, unquoted equity and Fast Moving Consumer Goods (FMCG). Inflation and Gross Domestic Product (GDP) were also factored in as macro economics that in combination with portfolio diversification would affect financial performance. The f value obtained out of regression analysis was 0.755 with significance of 0.558 indicated that the regression model did not predict the outcome variable significantly with

$p=0.558 > 0.05$, which was more than 0.05, and indicated that; overall, the model did not statistically and significantly predicted the outcome variable.

Table 4.1: Correlation between ROA and Portfolios

	Financial Services	FMCG	Real Estate&Infra	Quoted Equity	Unquoted Equity	ROA
Financial Services	1	.876**	.796**	.369	.787**	-.122
		.001	.006	.294	.007	.737
	10	10	10	10	10	10
FMCG	.876**	1	.959**	.700*	.950**	.181
	.001		.000	.024	.000	.617
	10	10	10	10	10	10
Real Estate&Infra.	.796**	.959**	1	.717*	.947**	.369*
	.006	.000		.020	.000	.024
	10	10	10	10	10	10
Quoted Equity	.369	.700*	.717*	1	.771**	.477*
	.294	.024	.020		.009	.031
	10	10	10	10	10	10
Unquoted Equity	.787**	.950**	.947**	.771**	1	.264
	.007	.000	.000	.009		.461
	10	10	10	10	10	10
ROA	-.122	.181	.369	.477	.264	1
	.737	.617	.294	.163	.461	
	10	10	10	10	10	10

Source: Field Data (2017)

The study found a positive and significant correlation $r=0.369$ $p=0.024<0.05$ between Real Estate and Infrastructure and Return on Asset indicating a positive relationship between Real Estate and Infrastructure and Return on Asset as measures of financial performance in Centum Ltd. Secondly, the study established a positive and significant correlation $r=0.477$, $p=0.031<0.05$ showing an existence positive and significant correlation between marketable securities and Return on Asset.

Conversely, the study establish a negative insignificant correlation $r=-0.122$ $p=0.737>0.05$ between financial services and Return on Asset indicating a negative insignificant relationship between financial services and Return on Asset. Although there was positive correlation between FMCG and unquoted equity and ROA, the relationship was quite insignificant showing an express lack of relationship between FMCG and unquoted equity and ROA.

Table 4.2: Correlation Between Total Portfolio, Macro Economics and ROA

	Total_Portfolio	Adjusted financial performance	Gross Domestic Product	ROA
Total_Portfolio	1	.409	.234	.173
		.240	.514	.633
	10	10	10	10
Adjusted financial performance	.409	1	-.541	-.388
	.240		.106	.267
	10	10	10	10
Gross Domestic Product	.234	-.541	1	.417*
	.514	.106		.031
	10	10	10	10
ROA	.173	-.388	.417	1
	.633	.267	.231	
	10	10	10	10

Source: Field Data (2017)

The study established a positive and significant correlation $r=0.417$ and $p=0.031 < 0.05$ between Gross Domestic Product and Return on Asset. This finding indicated that Gross Domestic Product as macro-economics had a positive significant relationship with

Centum Ltd financial performance measured in terms of Return on Asset. The study on the other hand established a weak insignificant correlation $r=0.173$ and $p=0.633$ between total portfolio and performance measured and also negative insignificant correlation of $r=-0.388$ and $p=0.268 > 0.05$ indicating insignificant relationship with ROA.

Table 4.3: Full regression Model between Portfolio Diversification and Return on Asset

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
1 (Constant)	.086	.026		3.356	.028
Financial Services	-1.439	.000	-.549	-.631	.562
FMCG	-1.965	.000	-1.177	-.714	.515
Real Estate & Infrastructure	1.249	.000	2.142	1.880	.033
Quoted Equity	2.809	.000	.326	.526	.627
Unquoted Equity					

Source: Field Data (2017)

Table 4.3 was used to analyze the full regression model indicating the combined effect of Financial services, FMCG, quoted equity (Marketable securities), real estate and infrastructure and unquoted equity. The R^2 value is an indication of how much the dependent variable, "ROA", was well explained by the independent variables, " Financial services, FMCG, quoted equity (Marketable securities), real estate and infrastructure and unquoted equity ". In this case, 68% was the R Squared, which is large indicating high

degree of correlation. The study established that the regression model under the study predicts the outcome variable being significant with $p < 0.00$, which is less than 0.05, this indicates that; the overall model statistically and significantly predicted the outcome variable.

The finding according to table 4.3 indicated that Real Estate and Infrastructure portfolio contributed significantly to Centum Limited Financial performance measured in terms of ROA, this is because Real Estate and Infrastructure had $p=0.033 < 0.05$ whereas Financial services, FMCG, quoted equity (Marketable securities) and unquoted equity did not contribute to Centum Limited financial performance since the significance in each of those portfolios was $p > 0.05$.

From the un standardized coefficients, the following equation was developed:

$$y = 0.086 - 1.439 x_1 - 1.965 x_2 + 1.249 x_3 + \varepsilon$$

This finding was supported by Hsu and Liu (2008) study in Taiwan which illustrated how a firm's operating activities can have an effect on the relationships between corporate diversification strategies and the company's financial performance. The study examined the characteristics of diversification; a firm's operating activities and its effects on financial performance in detail. However, the study in Taiwan may not well relate to the Kenyan context and therefore not applicable This is because the country is well grown unlike Kenya which is growing. Although the Taiwan's manufacturing model can be closely related to a firm's performance. The model is also used as a moderator of asset and product diversification which also affects the firm's performance. This creates a contextual gap which is filled by the current study.

This finding is further supported by an investigative study by Shyu and Chen (2009) who was comparing the different stages of firm's life in China with respect to products diversification. While firms are in their growth stage, there are significant positive returns while those at their maturity stage showed minimal returns in terms of financial performance. The researcher concluded that the stage of the firm in its lifecycle is very significantly important in making diversification decisions more specifically if higher returns are expected. The result from this study indicated that Centum Limited diversified portfolio at different stage of its growth strategy similar to studies done in China.

Table 4.4: Full regression Model between Total Portfolio Diversification, Macro Economics and Return on Asset

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.044	.058		.752	.481
Inflation rate	.004	.004	.327	.883	.411
Gross Domestic Product	.017	.013	.491	1.317	.236
Total_Portfolio	1.241	.000	.124	.344	.742

Source: Field Data (2017)

Table 4.4 was used to analyze Full regression Model between Total Portfolio Diversification, Macro Economics and Return on Asset. When Gross Domestic Product

and inflation were factored in, the R^2 which was 68%, was small indicating low degree of correlation. The study established that the regression model did not predict the outcome variable significant with p greater than 0.05 in each case indicating that; overall, the model did not statistically and significantly predicted the outcome variable.

The finding according to table 4.4 indicated that when the portfolio were combined, it had $p=0.742$, $GDP=0.411$ and inflation 0.236 which were greater than 0.05 indicating that the combined portfolios, GDP and inflation did not contribute to Centum Limited financial performance since the significance in each of those portfolios was $p>0.05$.

From the un standardized coefficients, the following equation was developed:

$$y= 0.044+0.004x_1+0.017x_2+1.24 x_3+\varepsilon$$

Combination of macro economics (GDP and inflation) with total portfolio is supported by Lloyd and Jahera (1994) who did an investigative study on the relationship between diversification and firm performance as measured by Tobin q. The related ratio was used to measure the level of diversification based on the firm's sales generated from various sub units in the company. Diversification strategies were classified into related and unrelated diversification. Their findings indicated that there was no significant relationship between firm diversification strategy and over the years financial returns as measured by Tobin q. No significant results were found by testing an alternative model.

This finding is supported by Studies which was conducted in India to critically establish the effect of stock prices of listed companies will have on the gross domestic product, inflation rate and interest rate for the period of 1997 to 2009. Stock market index was found to be a better proxy for stock prices in the model. Regression model was used in

order to analyze the Data and the findings indicated that the macroeconomic variables in the study fully explained the volatility in stock prices with a percentage of 95.6%. Conclusion in the study found that Interest rates and inflation rates positively affected stock prices whereas GDP negatively influenced or affected stock prices (Reddy, 2012).

The finding is further supported by a comparative study which was done on four Anglo Saxon economies which were sampled from different continents of the world for the period between 1959 to 2010. The countries which were found better placed for the study to give a better representation were US, UK, Canada and Australia. The study was mainly done to seek the cross country mechanics on how the transmission for volatility in the four countries. The study employed the GARCH chart model. The study concluded that cross mean spillovers from Gross Domestic Products to returns of stock markets were well depicted and outlined as part growth of the US towards the stock market. The US and Australia had very specific Crossovers mean spillovers but the US had the greatest concentration and impact of all the three economies. Co volatility was also confirmed to have an effect on stock returns and growth of GDP for all the countries of interest (Karunanayake *et al.*, 2012).

The findings on the Macro-economics (GDP and Inflation) is supported by a comprehensive local research study done in Kenya determined to see whether macroeconomic variables significantly influenced performance of deposit taking microfinance institutions in Kenya. The findings indicated that three macro- economic variables which are economic growth being measured by GDP, interest rates and Inflation-CPI can determine in a larger extent the financial Performance of the MFI. The study found that increased levels in GDP can lead to increased MFI performance can be

determined by ROA . Also that increased interest rates can lead to a reduced ROA. The numbers of financial years under which the MFIs have been operating were also very important in the study. This is because they had a positive effect on the MFIs financial performance. This study was done by Patrick (2013).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Studies are beginning to recognize portfolio diversification as an emerging financial concept that can affect firms' financial performance. The main aim of this study was to assess the relationship between portfolio diversification and financial performance of Centum Limited. The portfolios diversified by Centum included; financial services, Fast Moving Consumer Goods (FMCG), Real Estate and Infrastructure, marketable securities and unquotable equity. The study also analyzed macro economic factors; Gross Domestic Product (GDP) and Inflation as other externalities that affect financial performance between 2007-2016. The study used multiple regression model to determine the relationship between portfolio diversification and financial performance.

5.1.1 Descriptive Statistics on Portfolio Diversification

First, the study established that the portfolio performance dropped in the year 2010 but immediately thereafter took a positive trend with return in private equity taking the lead followed by marketable securities then Real Estate and FMCG and the least being financial services. In the years 2013, returns from Private Equity had positive tremendously growth compared to other portfolios but later on predicatively normalized in the year 2014.

Second, the investment returns of Centum Limited were possible because of the contribution of the other portfolios introduced in the company investment. Graph 4.3 indicated dome growth between 2009-2012 and also 2012 and 2015 with increased in

growth in 2016. In the year 2007 the inflation rate rose to 15.48% in 2008 and a drastic drop to 8.0% and further drop of 4.51% in the year 2010. There was another drastic rise to 18.39 in the year 2011 and another drop to 3.2% with a slight rise to 7.15% in the year 2013 and normalizing between 2014 to 2016. The GDP of Kenya sharply dropped in 2008 attributed to post election violence which rocked the country after contested 2007 presidential election. The GDP slightly improved in 2009 and exponentially grew before slightly dropping in 2016 and normalizing to an average of 3% between 2012 to 2016. These quantifiable changes in GDP had direct contribution to Centum ROA as a measure of financial performance.

Third, the findings from the study established a U-turn on Adjusted Financial Performance between the year 2007 and the year 2011 which steadily improved till 2015 and slightly dropped in 2016. The diversified portfolio brought in various income streams including quoted equity, unquoted equity, Fast Moving Consumer Goods, Real Estate and Infrastructure and financial services. The study established that Centum Limited total asset exponentially grew between the year 2007 and the year 2016. This growth almost took the shape of the income interpreted to be associated with portfolio diversification in the company. There were new asset acquired to run the newly created investment portfolio showing that diversifying portfolio contributes to acquisition of new asset which accumulatively enables the firm to own both current and fixed asset which are both convertible and also used in conversion to income. The study established low ROA ratio of less than 0.3 in each of the financial year.

Four, the study found a positive and significant correlation between Real Estate and Infrastructure and Return on Asset indicating a positive relationship between Real Estate

and Infrastructure and Return on Asset as measures of financial performance in Centum Ltd. Secondly, the study established a positive and significant correlation showing an existence positive and significant correlation between marketable securities and Return on Asset. Conversely, the study established a negative insignificant correlation between financial services and Return on Asset indicating a negative insignificant relationship between financial services and Return on Asset. Although there was positive correlation between FMCG and unquoted equity and ROA, the relationship was quite insignificant showing an express lack of relationship between FMCG and unquoted equity and ROA.

The study established a positive and significant correlation between Gross Domestic Product and Return on Asset. This finding indicated that Gross Domestic Product as macro-economics had a positive significant relationship with Centum Ltd financial performance measured in terms of Return on Asset. The study on the other hand establish a weak insignificant correlation between total portfolio and performance measured and also negative insignificant correlation of indicating insignificant relationship with ROA.

Six, the study established that the regression model predicted the outcome variable significantly with $p < 0.00$, which was less than 0.05, and indicated that; overall, the model statistically and significantly predicted the outcome variable. Real Estate and Infrastructure portfolio contributed significantly to Centum Limited Financial performance measured in terms of ROA. The study further established that the regression model did not predicted the outcome variable significantly with p greater than 0.05 in each case indicating that; overall, the model did not statistically and significantly predicted the outcome variable. When the portfolios were combined with GDP and

inflation, the combined effect did not contribute to Centum Limited financial performance.

5.2 Conclusion

The main aim of this study was to assess the relationship between portfolio diversification and financial performance of Centum Limited. The study established that Centum portfolio diversification had a positive and significant relationship with performance in Real Estate and Infrastructure and marketable securities portfolio but had no significant relationship with financial services, Fast Moving Commodity Goods and unquoted equity portfolios.

5.3 Recommendations

Based on the finding on assessment of the relationship between portfolio diversification and financial performance of Centum Limited, the study came up with the following recommendations to build the field of portfolio diversification. First, Centum should develop more in-depth portfolio diversification which is mapped and predictable on financial performance. Such strategy will ensure that any new portfolio diversification is closely mapped to financial performance as close as possible. Secondly, although unquotable equity has been the one of the flagship portfolios of Centum, the study established that it does not contribute to financial performance, the firm should relook at it with a view of reducing its investment or promoting its performance and closely monitoring it so as to improve its operations for better financial performance. The study recommends that Centum Limited should be consistent in its financial reporting so that the performance is tracked based on the portfolio where they come from. This would be

the first step in achieving close monitoring of portfolio performance. Four, Centum Limited must purpose to train its Strategic Business Units (SBU) on portfolio diversification strategy so that the whole strategic functions of the firm are abreast to portfolio diversification strategies.

Last, the study, recommends further study to be carried out on the effect of portfolio diversification on firms profitability for the newly registered investing companies in the Nairobi Securities exchange. This is because the study was based on one firm whose results may lack the required expansion in the portfolio diversification subject area. The findings from the study will add more light on the portfolio diversification used by the firms and how they affect performance among the listed firms.

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APPENDICES

Appendix I: Secondary Data Sheet

Category	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Inflation Rates										
Gross Domestic Product										
Risk Adjusted Financial Performance										
Total Assets										
<u>Asset Portfolios</u>										
• Private Equity (%)										
• Quoted Private Equity (%)										
• Real estate & infrastructure (%)										
• Fast moving consumer goods (FMCG)										
• Financial Services										
Return on Assets										

Appendix II: Centum Portfolio Diversification Raw Data

Inflation	GDP	Adj. Finance	Income	Asset	ROA	Financial Services	FMCG	Real Estate	Marketable Sec.	Private Eq.	Total Portf
5.6	3.59	562900	804888	8421656	0.1	0	25111	12808	66106	37343	141368
15.48	0	7620319	581514	8145850	0.07	82321	24263	300	194163	-501097	-200050
8.02	0.51	6403818	391586	6569939	0.06	218740	25170	300	194163	250803	689176
4.51	5.48	1540134	1038257	8255971	0.13	0	0	0	1089791	451877	1541668
18.93	3.27	1703210	2261431	12301576	0.18	0	0	810836	321582	572838	1705256
3.21	1.78	686955	1272313	11567701	0.11	0	0	85893	0	613459	699352
7.15	3.09	1417139	3905657	18961552	0.21	352696	874909	1410403	1267258	1662415	5567681
6.02	2.61	3055370	4883200	29597220	0.16	366884	953186	1546627	1781587	3301882	7950166
8.01	3	7942432	6681496	41327792	0.16	4983739	1621210	2153271	1092918	3645474	1349661
6.35	3.17	5506297	4343494	78053536	0.06	4983739	1621210	2153271	1092918	3645475	1349661

Source: Centum Limited Audited Published Account