RELATIONSHIP BETWEEN VENTURE CAPITAL INVESTMENTS AND ECONOMIC GROWTH IN KENYA

BY

FREDRICK WAMBUGU NGUYO

D61/84024/2015

A Research Project Presented for Fulfillment of the Award of Masters of Business Administration (MBA) of the University of Nairobi.

November 2018

DECLARATION

This Research project is my original study and has not been submitted to any other examination body. This study should not be copied without my authority or that of the **University of Nairobi.**

Signature:…………………………   Date:………………

Fredrick Wambugu Nguyo

D61/84024/2015.

This Research Project has been submitted for examination with my approval as the University Supervisor.

Signed …………………………………………..Date:……………………….

Mr Mwachiti

Lecturer, Department of Finance and Accounting,

School of Business, University of Nairobi.

DEDICATION

This research Project is dedicated to my family who gave me support during the time of the study.

ACKNOWLEDGEMENT

First is to thank God for giving me an opportunity to carry out this study. I wish to thank my supervisor Mr. Mwachiti and my Moderator Dr. Iraya for guidance, advice and being available in bringing this dissertation into fruition. I also wish to thank Viola K Chelangat of Capital Market Authority and Dr. Eva Warigia of East African Venture Capital Association for their cooperation in providing the necessary data.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Venture Capital is a source of non bank Financing which is quite common in developed Financial Markets that Fund start ups Firms, offer Management Experience and technical support to start ups businesses (Sahlman,1991). According to East African Venture Capital Association there were more than 200 Start ups businesses in Kenya funded by Venture Capital from the year 2006 to 2016. According to Capital Market Authority, Venture Capital is a fast growing source of Capital in Kenya from 1.57 billion Kshs in the year 2000 to 95 billion Kshs in the year 2016. The research employed a descriptive research design to study the relationship between venture capital and economic growth in Kenya. The study has shown a positive and significant relationship between economic growth and venture capital financing.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

This research is about the effect of Venture Capital on Economic Growth a case study of Kenya. The research shows Venture Capital as the independent variable and Economic Growth as the dependent variable. This chapter presents the background of Kenya Economy, background of Venture Capital, Research problem, objectives of this study, the value of the study and the relationship between venture capital and economic growth.

The research is guided by previous studies and theories in the area of Venture Capital and Economic growth. Bruno and Tyebjee (1987) identified six key stages of Venture Capital Financing of Firms and new innovations which financers usually adopt. Westerfield and Jaffe (2005) came up with four categories of suppliers who provide venture capital. Wetzel (2007) indicated that a financer of a new start up business or new innovation is a business Angel.

In the context of venture capital and economic growth the study will research if there is any relationship between the amount of venture capital invested in the economy and the rate of economic growth. It will identify if there is any correlation which exist and whether its positive or negative correlation. The study will look at the Kenya Economy its growth rate as reported by Kenya National Bureau of Statistics and amount invested as Venture capital in the Economy as reported by Capital Market Authority which regulate venture capital investment in Kenya.

1.1.1 Venture Capital.

According to Ross and Jaffe (2014) Venture capital is a young stage of financing new and upcoming companies seeking to grow rapidly. Ryan (2007) defines venture capitalist as individuals or organizations that can offer to finance the startup phase of a new business in exchange for an Equity stake. Venture capital is high risk finance for startups and other business ventures which is normally achieved through equity participation in the company concerned. Providers of venture capital are commonly backed by private equity finance.

Kaplan (2012) stated that Venture capital Money is invested in companies in the early stages of their development. This investment is often in the form of equity but can but in convertible preference shares or convertible Debt. While the risk of upcoming companies is mostly high, payoff of successful firms is very great. This is often the case when a company has grown to the point where it is sold to the public in an Initial Public Offer.

In summary Venture capital (VC) is a type of financing by private Equity that is provided to small, young stage, upcoming companies that seem to have high growth potential and the ones that have shown high growth based annual revenue or number of employees or both. Venture capital money is invested in these young stage companies in exchange for equity that is ownership stake in the firms they invested in. The start-ups are mostly based on an innovative new technology or business model that is new to the market providing new products and services. Venture capitalists absorb the risk of financing in risky start-up in the expectation that some of the businesses they support will become successful.

1.1.2 Economic Growth

Dornbusch (1994) Defined Economic growth as the increase in capacity and capability of an economy to produce goods and services, from one Economic period to another. Abel (2008) Economic growth as the increase in the inflation adjusted market value of goods and services produced by in the economy over a period of time. It is normally measured as the percent rate of change in real gross domestic product (real GDP). It is a way by which a nation improves the economic, social well being and political environment of its people. International Economic Development Council (IECD 2001) noted that the term is mostly used by economists, politicians and others professionals. The concept, have been their in the West for many centuries. It involves westernization modernization, use of technology and mostly industrialization. It is the process that stimulates growth and restructuring of the economy to facilitate the economic well-being of people and the community.

The main objectives of economic growth are to create jobs and wealth and to improve the life quality of the people. Development is a condition in which the people of a country have adequate food, work and reduced level of inequality among the citizens. It includes growth and is characterized by quality of life which comprises social justice, equal opportunities for all, equitable distribution of resources and democracy. It involves the ability of people to influence and use nature and resources for the betterment of the individuals and the society at large.

According to the International Economic Development Council, (2001) economic growth comprises three main areas which include: Government policies to meet wide economic goals including unemployment, inflation, and sustainable growth, policy

and programs for providing services such as infrastructure development, managing natural resources, providing medical services, providing education, and policy and programs for improving business conditions through specific efforts like business finance, marketing, tax incentives, subsidies.

According to Beardshaw and Brewster (2001) the key Economic indicators are Balance of payments, Inflation, Growth, Unemployment and the number of new start ups businesses coming up in the economy. Smith (2007) indicated there are lagging economic indicators as well as leading economic indicators. Leading economic indicators are level of manufacturing activity, Stock market index, number of building permits, retail sales, housing market index inventory levels, and level of new business start ups. lagging economic indicators are Consumer price index that is Inflation, changes in GDP, Levels of Income and Wages, Interest rates, Unemployment rate, Currency strength, Corporate Profits, Balance of Trade and value of commodity substitutes to domestic currency.

Ellsworth (1970) Balance of payments includes a record of a country transactions with the world at large. Beardshaw (2001). Its difference between value of imports and Exports of a country and shows whether there is a trade surplus of more Funds coming into the Economy or a trade deficit of more Funds going out of the Economy. Kindleberger (1970) balance of payments is a systematic record of all economic transactions which takes place among the individuals of a country and the rest of the world.

Inflation refers to a general increase in the level of prices. The consumer price index (CPI) shows the increased cost of living or inflation. The CPI is derived by analysing

the costs of basic items and services, such as professional services, Transport, Health care, Housing, clothing, Foods and electronics. Inflation is thereby derived by the average increase cost of goods over a duration of time in a total basket. A high inflation rate decreases the value of money more higher than the average consumer's income can earn. This therefore erode consumer purchasing power and declines the average standard of living. Moreover, inflation can also affect other areas, such as job creation, and can result in reduction of rate of employment, economic growth and GDP.

Growth refers to an increase in the overall output of the economy. Growth is measure by GDP. Adleman (1977) growth is the process by which an economy is transferred from one whose rate of increase of per capita income is small or negative to one in which a significant self sustained rate of increase of per capita income is a permanent and sustainable long run feature.

Unemployment is people wanting and able to work but not being able to find Jobs. When unemployment levels are great, spenders have little money to spend, which negatively affects businesses, housing markets, GDP, and securities, etc. Unemployment can be transitional due to seasonal, casual and turnover unemployment or structural due to cyclical, technological, urban, disguised, industrial change and Keynesian unemployment. In a healthy economy, unemployment level will be between from 0% to 5%.

The number of new start up businesses coming up in the economy shows the economic position of a country. Larry (2007) argued that upcoming businesses despite being small employ more employees leading to better economic growth. The number

of upcoming business can be got from number of new licences and the new products and services being introduced in the market.

1.1.3   Relationship between Venture Capital and Economic Growth.

The study aims to find whether there is a relationship between Venture Capital invested and the level of Economic Growth. Venture Capital is aimed to change lives of Communities for the better and improve their standards of living. Its supposed to create employment and a source of sustainable livelihood.

Samila and Sorenson (2009), studied Venture Capital, Economic growth and Entrepreneurship. They found that an increase in supply of venture capital positively increases Innovation, creation of new Firms, aggregate income and employment. Innovation, creation of new Firms or start ups, increase in aggregate income and employment positively stimulates economic growth hence there study showed positive correlation.

Abel (2008) Being a key factor of production as Capital, Venture capital enables the establishment of new business start up which creates new Jobs, increases goods produced in the economy there by increasing growth and GDP of a country. This will also improve Balance of payments as increase in production of goods in an economy will reduce imports if those goods take up market share of imported goods and also if those new products are exported earning foreign Exchange.

It also increases the circulation of money in the Economy by multiplier effect. Bernanke (2008) Multiplier effect occurs when a capital injection into an economy

results in a greater increase in the national income. People employed in Jobs created by start ups businesses are paid salaries and they spend those salaries buying food, rent, clothing, transport etc. this leads to growth of other business improving the standards of living of many people and increase in income and wages.

Belke, Fehn and Foster (2003) did a research in United States, Germany and Japan titled do venture capital investment spur Economic Growth and employment. They found Venture capital spur Economic growth and employment. They Concluded that Venture capital job creation and employment growth and thereby leading to economic growth. They also pointed out new innovation and venture capital leads to job creation and structural change giving rise to a new better economy.

With increased supply of good and services in the market inflation is checked. Consumer price index remains low which is good for an economy. Venture capital is also used in start ups of new manufacturing activity which is important for an economy in creating employment and increasing GDP. Venture capital have also led to growth in the stock market where new businesses financed by Venture Capital have become listed in the stock market.

1.1.4 Economic Growth in Kenya.

Kenya is an East African Country ranked as a lower middle income Economy by World Bank (2015). It have a democratically elected Government with independent institutions like parliament and Judiciary. The country had a new constitution dispensation in 2010 which gave birth to devolution and devolved local governments. According to World Bank (2016) her GDP was 70 Billion dollars making it 72nd

largest economy in the world and 9th in Africa. The per capita income is about 1,600 dollars (KNBS 2016) and It recorded an economic growth rate of 5.5% in year 2016.

The economy is driven by Agriculture sector where it produces Coffee, Tea, horticulture and flowers as main export products. Tourism is another key contributor to GDP creating employment in transport, hotel and hospitality sector. Kenya have minerals like petroleum, natural gas, Gold and Graphite. Its key Energy sources is hydro, Geothermal, wind and solar. Compared to her neighbours Kenya have a well-developed infrastructure in terms of Roads, Railways, Airports and Seaports. Construction and Transport contribute highly to Economic growth rate and GDP. Remittances from abroad contribute highly to foreign currency amount in the country especially from Europe, USA and Middle East.

Kenya has the second highest number of start-ups in Africa second to Nigeria but Kenya has the highest overall investments. According to Venture Capital For Africa (VC4A 2015) study Published in March 2015 the report indicates that Nigeria has the most start-ups raising capital, but Kenya has the highes overall investment. However the start-ups action is still not widely and normally distributed across the continent, with only a handful of other Nations attracting meaningful amounts of venture capital investments. (VC4A 2015) findings indicate that from the 120 venture financed start ups in the survey, 21 percent or 24 start ups are located in Nigeria and have come up 1.4 million dollars. Another 17 percent or 19 start ups are based in Kenya and have raised 4.7 million dollars. Venture Capital Firms found in Kenya are Fusion Capital, Village Capital, Jacana Partners, Africa Media Ventures Fund, Fanisi Capital, Savannah Fund, Novastar Ventures, Victoria Ventures, Angel Investment Network,

Zapmeta, Venture Capital Business Service Limited and Venture Capital and Credit Limited.

1.2 Research Problem

Samila and Sorenson (2009) studied Venture Capital Economic growth and Entrepreneurship. They found that an increase in supply of venture capital positively increases Innovation creation of new Firms, aggregate income and employment. Innovation, creation of new Firms or start ups, increase in aggregate income and employment positively stimulates economic growth hence there study showed positive correlation.

Belke, Fehn and Foster (2003) did a research in United States, Germany and Japan titled do venture capital investment spur Economic Growth and employment. They found Venture capital spur Economic growth and employment. They Concluded that Venture capital job creation and employment growth and thereby leading to economic growth. They also pointed out new innovation and venture capital leads to job creation and structural change giving rise to a new better economy.

Elsiefy (2013) Conducted a Research Titled A survey of venture capital economic impact on Egypt. He found there is no relationship between venture capital and Economic growth and also growth in GDP. He also found negative relationship between venture capital in comparison with inflation and consumer prices. However he found there was positive relationship of venture capital with employment, innovation and number of new start ups businesses.

Maigua (2012) Conducted a research on Effects of Venture Capital on Economic Development. He found there is no relationship between venture capital and Economic Development. He also noted very little information on this sector is available to the general public. The public needs to be educated by researchers on Venture Capital, how it works and how the public can use it to enhance economic growth.

The effect of availability of Venture capital on the Economic Growth and Development have not been adequately studied. The Government of Kenya have never stated officially the contribution of Venture Capital to Economic Growth. Research have not established exhaustively the relationship between Venture Capital and Economic Growth whether there is any relationship and if relationship exist if the relationship is positive or negative correlated. From this research studies discussed some researchers found there is some relationship between venture capital and Economic growth whereas others found no relationship. This creates a research gap which this study seeks to fill by researching if there is any relationship between venture capital and Economic growth and if any correlation.

1.3 Objective of the study.

The objective of this research is to determine the relationship between Venture Capital and Economic growth in Kenya.

1.4 Value of the Study

The Kenyan people, Companies and Government can learn more about Venture capital, its sources, Companies providing it and its effect on Economic Growth and

Development. It would provide information to students learning about Venture capital and finance practitioners. It would influence policies and decision of Government as Government learns more about it, its contribution to the Economy and the problems facing the sector like non regulation. Investors would also benefit from the study as they learn more about Venture Capital, its cost and providers.

This study will provide information to future researchers which will enrich the theories and provide empirical reference in their literature review and be able to improve their knowledge and skills on researching about Venture Capital and Economic Growth. Practitioners, Professionals and researchers would benefit by adding their knowledge and be able to offer consultancy services or advice to various business organizations on how to smoothly and successfully source or offer Venture Capital in an ever dynamic environment.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter includes the theoretical review, empirical review, critical review, summary and gaps to be filled and the conceptual framework. Mugenda O Mugenda M (2003) Literature review is an account of published materials on a given topic by a credited scholar. It is that part of the introduction to an essay or research reports. Its purpose is to convey knowledge and ideas established of a topic. Kothari (2004) Literature reviews main purpose is to assist in developing the theoretical framework, assess the importance of the existing studies and their significance and also justify the research problem in review. A review was done on books and other literature on Venture Capital and Economic Growth. In this chapter, we look at various Venture capital Theories and previous research on Venture Capital and Economic Growth.

2.2 Theoretical Review

The study will include the following theories which have been formulated in the area of venture capital and Economic growth to explain, understand and formulate them better.

2.2.1 Theory of Venture Capital Financing stages.

Bruno and Tyebjee (1987) identified six key stages of Venture Capital Firms Financing. First is the Seed money stage, where little amount of financing is used to prove a concept or develop a Service or product. This is mostly for a new product or new innovation introduced in the market. Marketing is not included at this stage. Second is start up Financing for business which started within one year and likely to

pay for marketing and Product Development. Thirdly is first round Financing where additional money is used to start sales and Production after business have spent it start up Money. Fourth is second round Financing where funds earmarked for working for a firm that is currently selling its product but still losing money. Fifth is Mezzanine or third round Financing which is financing a Company that is at least break evening and is contemplating an expansion. Sixth is the Bridge or Fourth round financing where money is provided to firms that are most probably going to public within half an year.

2.2.2 Theory of Suppliers of Capital.

Westerfield and Jaffe (2005) came up with four categories of suppliers who provide venture capital. First is the old line known wealthy families a good example is the Rockefeller Family. Secondly is a large number of private partnership & corporations which have been created to provide investment funds. Example is the ARD (1946) of USA. Thirdly is large industrial also called financial corporations which have created venture capital subsidiaries. Example is the Lambda fund of Drexel Burnham Lambert, Hanover Venture capital Corporation, Citicorp venture and Chemical Venture Capital corporation. Fourthly are Business Angels. Wetzel (2007) Business Angel are affluent individual who puts capital for a business start-up, usually in exchange for convertible debt and or ownership equity. He also indicated that there exist a rich network of Angels, continually relying on each other for consultancy and advice. A number of researchers have insisted that, in any informal network, there is likely one knowledgeable and trustworthy individual who, when promoting a venture brings some experienced investors in with him.

2.2.3 Theory of Business Angels.

Wetzel (2007) indicated that a financer of a new start up business or new innovation is a business Angel. Business Angels have money, skills and networks mostly wealthy families. Every start up need an Angel to take off. They buy a stake in the business mostly in form of convertible debt or ownership equity and then most of them sell there stake at a big profit when the business reach maturity stage. Business Angels also brings experience and networks, there exist a rich network of Angels, continually relying on each other for consultation and advice. A number of researchers have insisted that, in any informal network, there is probably one knowledgeable and trustworthy individual who, when promoting a venture brings some experienced investors in with him. He indicated that lack of trust, corruption and political instability would discourage Business Angels to venture in some viable investment that would lead to high Economic growth. He also stated entrepreneurs with very good ideas fail use Venture Capital to develop them for fear of loss of control of their investment. This deny the Economy Jobs and growth

2.3 Determinants of the Economic Growth.

This are factors which are inter related and affects economic growth of a country like capital injection, technology, natural resources, human resources, efficiency factor, demand factor etc. venture capital is part of capital injection.

2.3.1 Venture Capital.

According to Ross and Jaffe (2014) Venture capital is a young stage of financing new and upcoming companies seeking to grow rapidly. Ryan (2007) defines venture capitalist as individuals or organizations that can offer to finance the start up phase of

a new business in exchange for an Equity stake. Venture capital is high risk finance for start ups and other business ventures which is normally achieved through equity participation in the company concerned

2.3.2 Natural resources.

Malthus (1901) Natural resource is anything that exist in nature and have exploitable economic value. This includes geothermal energy, oil, natural gas, mineral resources, water, etc. a country ability to exploit its mineral resources determines its rate of economic growth, growth in GDP and creation of employment and wealth. If a country fails to exploit its natural resources which is in high demand it may be attacked in order to get the resource like what happens in Africa.

2.3.3 Human resources

Ricardo (1999) Increase in quality and quantity of workforce increase economic growth. This is both skilled and unskilled workforce. Increase in skills of workers leads to better quality output of goods and services of higher value while increase in quantity leads to more production of goods and services. Higher production and of higher quality goods leads to increase in GDP, more Exports and less imports hence better favourable balance of trade.

2.3.4 Technology

Smith (2004) Technology is a combination of skills techniques processes and methods used in production of goods and services. Better technology improves processes, methods and procedures of production. It reduces the time and cost of production leading to efficiency and effectiveness. Its creates competitive advantage necessary

for a company to remain competitive. It helps in solving problems and accomplishment of objectives.

2.3.5 Efficiency Factor

Smith (2004), this is achieving maximum quality output from the available resources at the lowest cost. Efficiency is both productive and allocative. A country should use its available resources most efficiently in order to produce the optimum mix of goods and services and should use its resources to maximize possible output.

2.4 Empirical Review

Samila and Sorenson (2009) studied Venture Capital Economic growth and Entrepreneurship. They found that an increase in supply of venture capital positively increases Innovation creation of new Firms, aggregate income and employment. Innovation, creation of new Firms or start-ups, increase in aggregate income and employment positively stimulates economic growth hence there study showed positive correlation.

Belke, Fehn and Foster (2003) did a research in United States, Germany and Japan titled do venture capital investment spur Economic Growth and employment. They found Venture capital spur Economic growth and employment. They concluded that Venture capital job creation and employment growth and thereby leading to economic growth. They also pointed out new innovation and venture capital leads to job creation and structural change giving rise to a new better economy.

Elsiefy (2013) conducted a Research Titled A survey of venture capital economic impact on Egypt. He found there is no relationship between venture capital and Economic growth and also growth in GDP. He also found negative relationship between venture capital in comparison with inflation and consumer prices. However he found there was positive relationship of venture capital with employment, innovation and number of new start-ups businesses.

Maigua (2012) conducted a research on Effects of Venture Capital on Economic Development. He found there is no relationship between venture capital and Economic Development. He also noted very little information on this sector is available to the general public. The public needs to be educated by researchers on Venture Capital, how it works and how the public can use it to enhance economic growth.

2.5 Conceptual Framework

The figure below is a pictorial demonstration of how venture capital works. The two main players Venture Capitalist who provide capital for investment of good idea in the Economy and the Economy where good and services produced are consumed giving back returns to Venture capitalist as profits.

```
┌─────────────────────┐                              ┌─────────────────────┐
│                     │                              │      Economy        │
│  Venture Capital    │─────────────────────────────▶│                     │
│                     │                              │      Growth         │
│                     │                          ╱   │                     │
└─────────────────────┘                        ╱     └─────────────────────┘
                                             ╱
                              ┌────────────╱──────────┐
                              │          ╱            │
                              │                       │
                              │   Natural Resources   │
                              │                       │
                              │   Human Resources     │
                              │                       │
                              │   Technology          │
                              │                       │
                              │   Efficiency Factor   │
                              │                       │
                              └───────────────────────┘
```
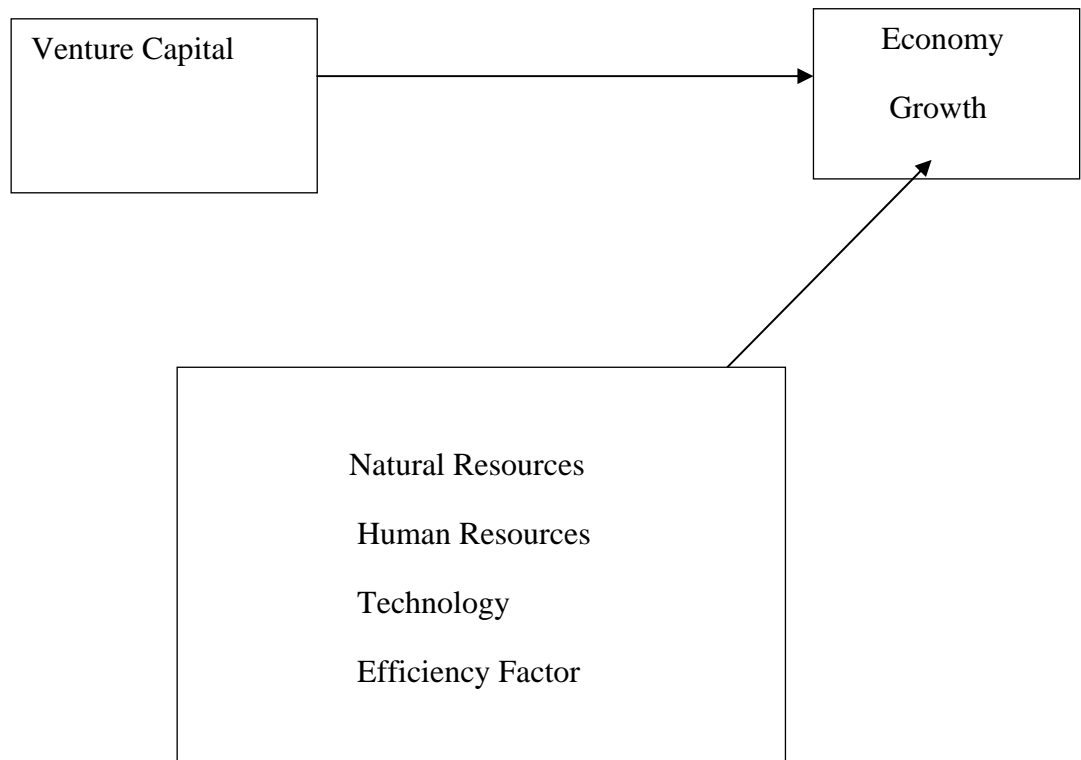
Figure 2.1: Conceptual Framework

2.6 Summary of Literature Review

From the studies and theories discussed they give conflicting findings. Samila and

Sorenson (2009)and also Belke, Fehn and Foster (2003) found there is relationship

between Venture capital and economic growth. Elsiefy (2013) and Maigua (2012)

found there is no relationship. It's from this critiques that the research gap has been

identified which this study aims to fill.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction.

This chapter identifies the methodology and procedures which the researcher used to realize the objectives in this study. These includes data collection methods, study design, target population, reliability and validity, data analysis methods and procedures. The researcher carried out a detailed study into the effects of Venture Capital and economic growth in Kenya and in the world in general.

This study involves a careful and complete examination of the business environment, business institutions and society at large in matters involving Venture Capital and economic growth. The study is both qualitative and quantitative in nature. In order to establish the relationship between Venture Capital and growth, the researcher involved some staff of the institutions which had the data studied which gave a better opportunity to get information that was instrumental in driving this research.

3.2 Research Design

Labaree (2009) Research design means the whole strategy used to integrate the different components of research in an orderly and logical way ensuring research problem is addressed so in summary it entails the blue print of collection, Coding, arranging, measuring and analysing data. It involves the whole plan of conducting the research in order to address the research gaps and questions hence achieve the objectives of the study.

The research used descriptive research design. Oso and One (2009) Descriptive research design is the systematic collection of data in standardized format from an identifiable population or representative. Mugenda O and Mugenda M (1999) defines descriptive research design as a systematic, empirical inquiring in which the researcher do not have a direct control of independent variable as their manifestation has already happened or because the inherently cannot be changed or manipulated. Thus, this research design was adopted for this study because it intensively described and analysed the effects of Venture Capital on Economic growth and Development.

3.3 Data Collection Methods and Instruments

The researcher collected secondary data. According to Lyon (2007) Secondary data is standardized, reliable, cost effective and time saving. The Researcher collected data for the years 2004 upto 2016. Data for year 2004 and 2005 was used for pilot test. Data for 2006 was used as the base year and data for year 2007 to Year 2016 was used for the Study. The data on Kenya Economic growth rates from 2004 to 2016 was collected from Kenya National Bureau of Statistics. The Data on amount invested in venture capital in the Economy of Kenya from 2004 to 2016 was collected from Capital Markets Authority.

3.4 Reliability and Validity

The researcher obtained authority from the University in order to get cooperation from Capital Markets Authority and Kenya National Bureau of Statistics. When collecting data either by self or through research assistants. The research was not biased as data is collected from credible sources. A pre-test or pilot test was done for two years that is year 2004 and 2005 in order to ensure reliability and validity of the data and these are not included in the major study.

3.5 Data Analysis

Williamson (1999), Data analysis process is the procedure of packaging the Data collected, packaging the information in order and structuring its main components in a way that the results will be simply and effectively communicated. Its summarized, analysed using quantitative techniques and qualitative. Qualitative method is characterized with information analysis and evaluation of text material and its used when results are unknown, to state the problem or develop a method to address the problem. It enables researchers to go deeper into issues of interest and explore the solutions related to problem at hand.

The purpose of the analysis is to study the relationship between the Venture Capital and economic growth in Kenya. The analysis is useful before any conclusion, intelligent and strategic planning is performed. The main goal of data analysis is to clarify the problem, identify alternatives and provide sense of direction. The data collected was analysed by the use of descriptive statistics for example frequency tables, proportions, percentages and measure of relative position. The study employed two broad techniques of data analysis i.e. statistical method and graphical method.

Statistical methods of data analysis was used to describe and make inferences about measurable characteristics. This summarized the data using such indices as measures of central tendency whereby the mean, mode and median were studied and also the measures of variability. Measures such as variance, standard of deviation and range, the measure of association or relationship, and correlation and regression analysis were used. The graphical analysis of data involves use of bar charts, pie charts and graph to present data collected.

The data collected that is amount invested in venture capital in the Economy of Kenya from 2004 to 2016, collected from Capital Markets Authority the independent regulator of Venture capital investments in Kenya and Economic Growth rate of Kenya from 2004 to 2016, that was collected from Kenya National Bureau of Statistics was used to carry out the study. The data for 2004 and 2005 was used as a pre test which is not included in the study. The data for year for 2006 was used as the base year (T). The data for 2007 to 2016 was used for the study.

3.5.1 Diagnostic test

The research studied linearity which is the relationship on dependent and independent variables. It tested the expected value of dependent variable was a straight line function of the independent variable, holding other independent variables constant.

The study performed multi linearity or multi collinearity test which is a statistical phenomenon that exist where perfect or exact relationship exist between the predictor variables. It tested the slope of the line does not depend on the values of the other variables and the effects of different independent variables on the expected value of the dependent variable are addictive.

The study carried out auto correlation tests or Durbin Watson test which test the regression residuals are not auto correlated. They assume that observations are ordered by time. The study was not affected by heteroscedasticity or homoscedasticity violation where there are constant variance of errors due to confidence intervals being too wide or too narrow or giving too much weight to a small subset of the data. The study also performed unit root test to test the stationarity of the time series.

3.5.2 Analytical Regression Model

The linear regression model for this study is

Y = a + b1x1 + b2x2 +b3x3 + b4x4 + b5x5 + e

Where:

Y = Economic growth as provided by Kenya National Bureau of Statistics as the dependent variable.

a = the regression constant which represent the intercept of the regression Equation.

b1, b2, b3, b4, b5 = are the slope of the regression which represents the coefficients of respective variables.

e = error term

x1 = Venture capital which is independent variable. This will be measured by comparing the amount of Venture Capital invested in the year measured with that of the base year which is 2006.

x2 = Natural resources which is independent variable. This will be measured by comparing the GDP growth Rate in sector components that use natural resources which are Forestry, Mining, Electricity, Water and Fishing in the year measured with that of the base year which is 2006.

x3 = Human resources which is independent variable. This will be measured by comparing the GDP growth Rate in the sector components that affects Human resources which are Education, Health, Administration, Arts and Other Social Services in the year measured with that of the base year which is 2006.

x4 = Technology and Efficiency which is independent variable. This will be measured by comparing the GDP growth Rate in the sector components of Information,

Communication and Technology and also Professional Scientific Technical Aid in the year measured with that of the base year which is 2006.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter focus on the analysis of the data collected and provides discussion of the findings together with their implications. It covers response rate, descriptive statistics and discussions of research Findings. The data was is secondary data collected directly from Kenya National Bureau of Statistics Website, Capital Market Authority website and East Africa Venture Capital Association website. There was cooperation from Capital Market Authority who even recommended East Africa Venture Capital Association (EAVCA) for more data and the data from Kenya National Bureau of Statistics was readily available in there Website. The data is adequate for analysis.

4.2 Descriptive Statistics

Discuss the means, standard deviations, coefficient of variation, kurtosis and skewness for each study variable.

Table 4.1: Descriptive Statistics

	Economic growth	Venture capital	Natural Resources	Technology and Efficiency	Human resources
Mean	5.05	75,227,272,727	1.13	0.37	1.34
Std Error	0.50	19,459,907,927	0.11	0.11	0.13
Median	5.60	90,000,000,000	1.24	0.33	1.33
Std Dev.	1.65	64,541,213,048	0.35	0.35	0.44
Kurtosis	0.95	-0.47	0.80	2.43	0.40
Skewness	-1.22	0.58	-1.04	1.46	-0.79
Range	5.50	195,000,000,000	1.23	1.17	1.49
Count	11.00	11.00	11.00	11.00	11.00

Source: Researcher (2018)

The results of descriptive statistical analysis for Economic growth, Venture capital, Natural Resources, Technology and Efficiency and Human resources are presented in table 4.1. From the table mean, standard deviation, Kurtosis and Skewnesswere used to test respondent ideas where Standard deviation is the square root of the variance. It measures the spread of a set of observations. The larger the standard deviation is, the more spread out the observations are while mean is the arithmetic mean across the observations. Standard deviation for the Economic growth, Venture capital, Natural Resources, Technology and Efficiency and Human resources are 1.65, 19,459,907,927, 0.11, 0.13 and 0.44 respectfully. It is the most widely used measure of central tendency. It is commonly called the average. The mean is s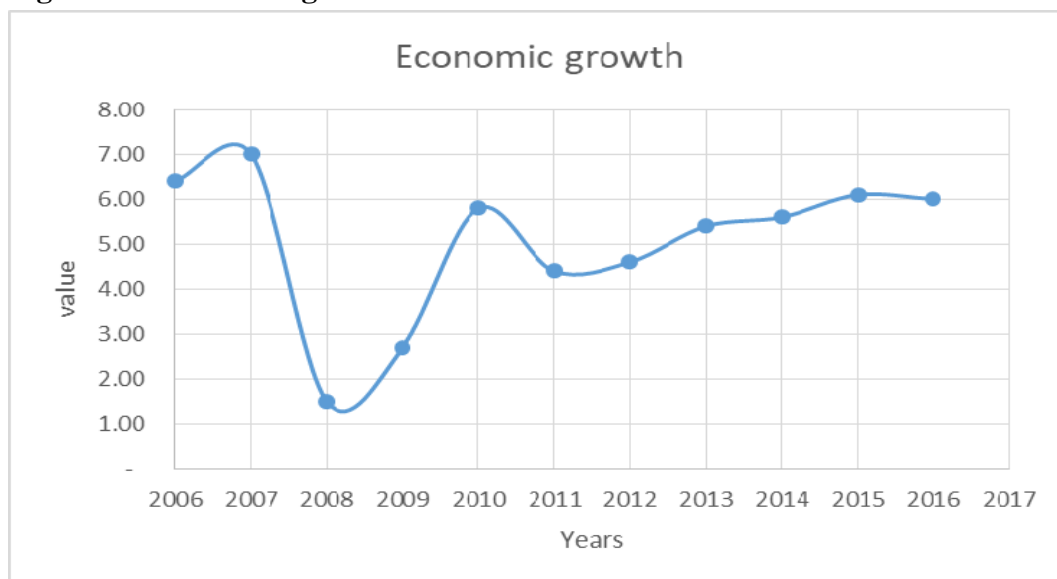ensitive to extremely large or small values. The mean score for Economic growth, Venture capital, Natural Resources, Technology and Efficiency and Human resources are 5.05, 75,227,272,727, 1.13, 0.37 and 1.34 respectfully.

4.3 Trend Analysis

Figure 4.1: economic growth

Source: Researcher (2018)

Figure 4.1 shows a plotted graph of economic growth against years around Venture Capital and Economic growth in Kenya. It shows in the year 2007 had the highest economic growth rate which subsequently drop in the year 2008. After the year 2008 the economic growth increased up to the year 2016.

Figure 4.2: Venture capital

From the finding in figure 4.2 there was a fluctuating trend of venture capital with the lost years beginning with 2008,2009,2010,2012 and 2016 increasing in a small proportion respectfully. The highest year of venture capital was 2015 with 200 billions kshs.

Figure 4.3: Natural Resources
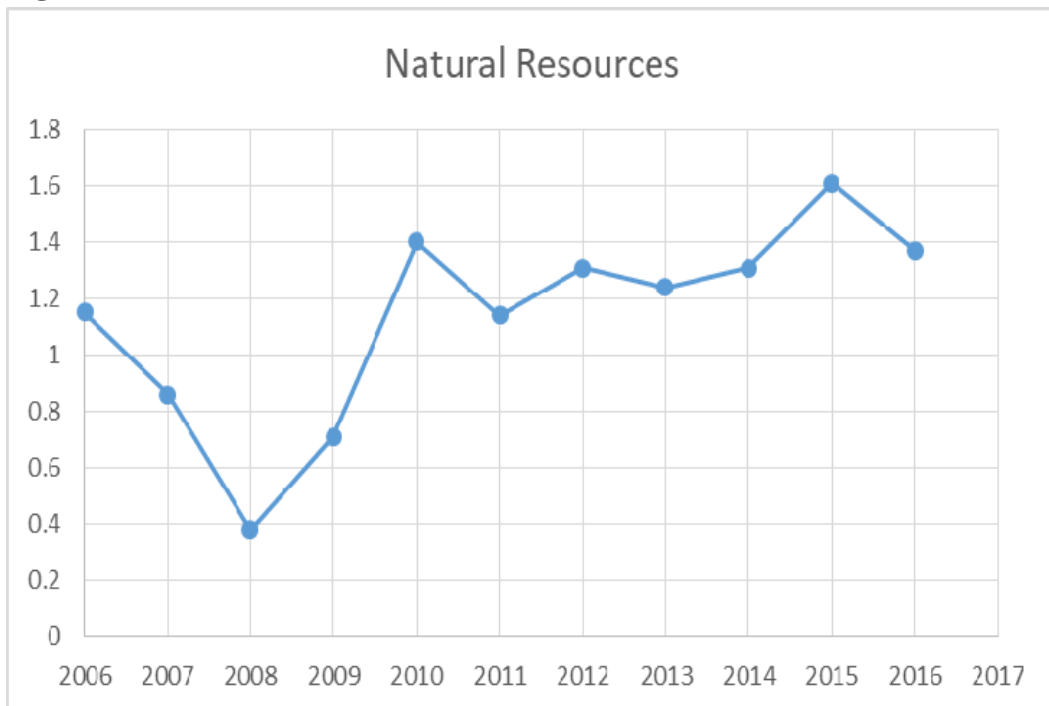
Natural Resources

Source: Researcher (2018)

The natural resources which is the measure of GDP growth Rate in the sector components that affects Human resources which are Education, Health, Administration, Arts and Other Social Services in the year measured with that of the base year which is 2006. The figure shows the natural resources drop from 2006 to 2008 which eventually moved upward up the year 2016.

Figure 4.4: Technology & Efficiency
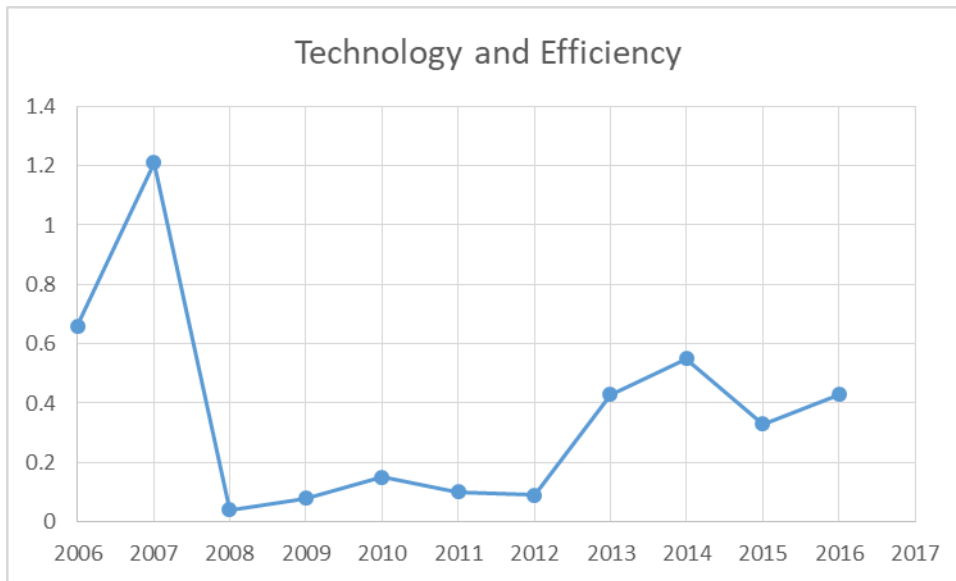
Source: Researcher (2018)

From the finding technology and efficiency indicated the was upward movement from year 2006 to 2007 from 0.7 to 1.2 and dropped to 0.2 in 2008. The years followed, results indicated a proportion increase in value of technology and efficiency which is GDP growth Rate in the sector components of Information, Communication and Technology and also Professional Scientific Technical Aid in the year measured with that of the base year which is 2006.

Figure 4.5: Human resources
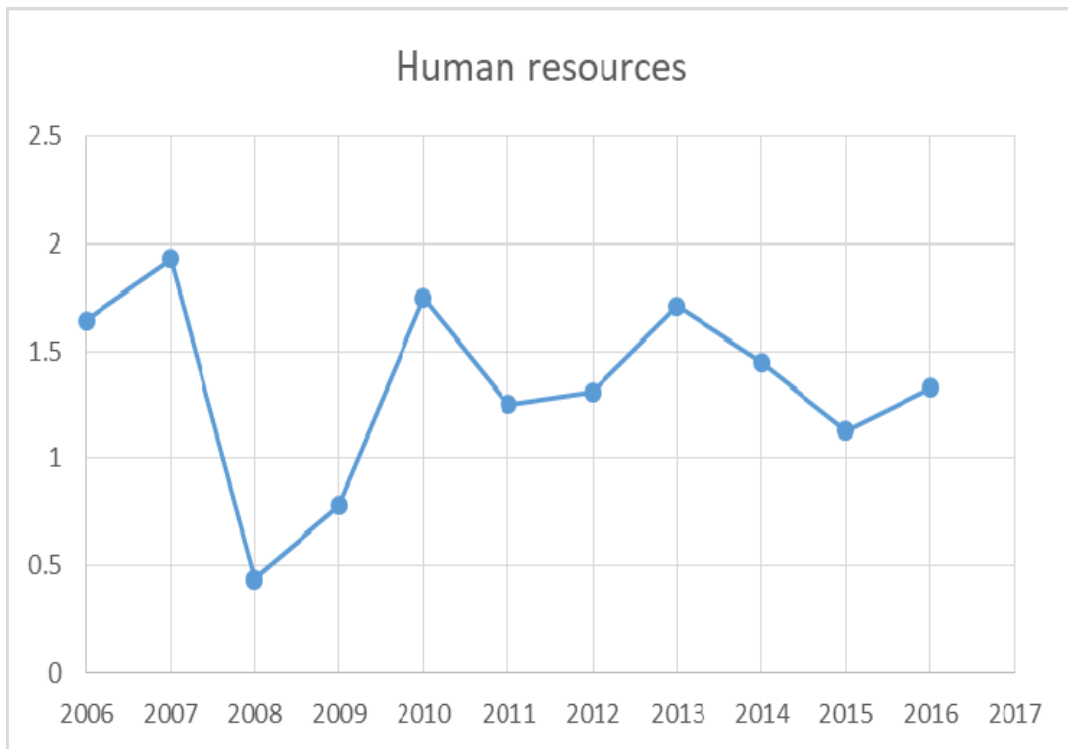
Source: Researcher (2018)

The findings from figure 4.6 show that the values for human resource that were less than 1 were the year 2008 and 2009. The rest were above 1. Human resources is measured by comparing the GDP growth Rate in the sector components that affects Human resources which are Education, Health, Administration, Arts and Other Social Services in the year measured with that of the base year which is 2006.

4.4 Correlation Analysis

The researcher conducted a Pearson correlation analysis to determine the relationship between venture capital and economic growth in Kenya. The findings are indicated in subsequent sections. The computation of a correlation coefficient yields a statistic that ranges from -1 to +1. A value of +1 represents a perfect positive correlation, while -1 represents a perfect negative correlation.

Table 4.2: Correlation Analysis

	Economic growth	Venture capital	Natural Resources	Technology and Efficiency	Human resources
Economic growth	1.00				
Venture capital	0.52	1.00			
Natural Resources	0.71	0.50	1.00		
Technology and Efficiency	0.72	0.38	0.06	1.00	
Human resources	0.88	0.33	0.53	0.67	1

Source: Researcher (2018)

The interpretation of results for the linear relationships in the study, for a weak correlation, "r" ranges from ± 0.10 to ± 0.29; in a moderate correlation, "r" ranges between ± 0.30 and ± 0.49; while in a strong correlation, "r" ranges from ± 0.5 and ± 0.9. The findings in table 4.2 shows that technology and efficiency and economic growth had a highest Pearson correlation of 0.72, followed by 0.71 economic growth and natural resources an indication of strong positive correlation between the variables. Technology and efficiency and natural resources had the least and week Pearson correlation of 0.06 followed by technology and efficiency and venture capital had a Pearson correlation of 0.38. The findings indicates that the study variable were positively correlated.

4.5 Regression Analysis

Multiple regression was carried out to determine whether a group of variables together predict a given dependent variable. In this study, it was Venture capital,

Natural Resources, Technology & Efficiency and Human resources against enterprise

Economic growth variable.

Table 4.3: Strength of the model

Regression Statistics	
Multiple R	0.99
R Square	0.98
Adjusted R Square	0.97
Standard Error	0.31
Observations	11.00

Source: Researcher (2018)

    a) Predictors: (Constant), Venture capital, Natural Resources, Technology & Efficiency and Human resources

    b) Dependent Variable: Economic growth

Analysis in Table 4.3 shows that the coefficient of determination, r^2 (the percentage variation in the dependent variable being explained by the changes in the independent variables) R^2 equals 0.98, that is, Venture capital, Natural Resources, Technology & Efficiency and Human resources only 2 percent unexplained. The r^2 has been used as a measure of how good a predictor the regression equation is.

Table 4.4: ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	26.79	6.70	69.97	0.00
Residual	6	0.57	0.10		
Total	10	27.37			

Source: Researcher (2018)

a) Predictors: (Constant), Venture capital, Natural Resources, Technology & Efficiency and Human resources

b) Dependent Variable: Economic growth

ANOVA was carried out to determine whether there are significant differences between two or more groups of means at a selected probability level. ANOVA findings (P- value of 0.00) in Table 4.4 show that there is correlation between the predictor's variables (Venture capital, Natural Resources, Technology & Efficiency and Human resources) and Economic growth. F ratio is calculated which represents the variance between the groups, divided by the variance within the groups. A large F ratio indicates that there is more variability between the groups (caused by the independent variable) than there is within each group, referred to as the error term. A significant F test indicates that the null hypothesis can be rejected.

Table 4.5: Coefficients of regression equation

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-0.03	0.37	-0.07	0.95	-0.93	0.88
Venture capital	0.01	0.00	-0.71	0.51	0.00	0.00
Natural Resources	2.79	0.46	6.07	0.00	1.67	3.91
Technology and Efficiency	2.69	0.50	5.37	0.00	1.47	3.92
Human resources	0.76	0.43	1.77	0.13	-0.29	1.82

Source: Researcher (2018)

Multiple regression was carried out to determine whether a group of variables together predict a given dependent variable. In this study, it was Venture capital,

Natural Resources, Technology & Efficiency and Human resources against Economic growth as the dependent variable. The established multiple linear regression equation for the independent and dependent variables for the study is thus summarized as:

$$Y = -0.03 + 0.01X_1 + 2.79 X_2 + 0.013X_3 + 0.421X_4$$

Whereby,

Constant = -0.03, shows that if Venture capital, Natural Resources, Technology & Efficiency and Human resources are all rated as zero, Economic growth would be -0.03

$X_1 = 0.01$, shows that one unit change in Venture capital results in 0.01 units increase in Economic growth.

$X_2 = 2.79$, shows that one unit change in Natural Resources results in 2.79 units increase in Economic growth

$X_3 = 2.69$, shows that one unit change in Technology and Efficiency results in 2.69 units increase in Economic growth

$X_4 = 0.76$, shows that one unit change in Human resources results in 0.76 units increase in Economic growth

The regression coefficients indicate the relative importance of each of the independent variables in the prediction of the dependent variable. For this study, when level of education, prior experience, entrepreneurial culture and networking when jointly regressed against Economic growth to explain variance, the sizes of the individual regression coefficients indicates how much an increase of one unit in the independent variable affects the dependent variable assuming all the other independent variables remain unchanged.

4.6 Discussion of Research Findings

The finding from shows that one unit change in Technology and Efficiency results in 2.69 units increase in Economic growth study this conforms with Samila and Sorenson (2009) studied Venture Capital Economic growth and Entrepreneurship. They found that an increase in supply of venture capital positively increases Innovation creation of new Firms, aggregate income and employment. Innovation, creation of new Firms or start-ups, increase in aggregate income and employment positively stimulates economic growth hence there study showed positive correlation.

The finding indicates that the economy is driven by Agriculture sector where it produces Coffee, Tea, horticulture and flowers as main export products. Tourism is another key contributor to GDP creating employment in transport, hotel and hospitality sector. The study is similar to Abel (2008) Being a key factor of production as Capital, Venture capital enables the establishment of new business start-up which creates new Jobs, increases goods produced in the economy there by increasing growth and GDP of a country. This will also improve Balance of payments as increase in production of goods in an economy will reduce imports if those goods take up market share of imported goods and also if those new products are exported earning foreign Exchange.

Belke, Fehn and Foster (2003) did a research in United States, Germany and Japan titled do venture capital investment spur Economic Growth and employment. They found Venture capital spur Economic growth and employment. They concluded that Venture capital job creation and employment growth and thereby leading to economic

growth. They also pointed out new innovation and venture capital leads to job creation and structural change giving rise to a new better economy.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of key data findings, conclusion drawn from the findings and recommendation made. The conclusions and recommendations drawn focused on the relationship between Venture Capital and Economic growth in Kenya.

5.2 Summary of Findings

The finding shows that technology and efficiency indicated that there was upward movement from year 2006 to 2007 from 0.7 to 1.2 and dropped to 0.2 in 2008. Venture capital job creation and employment growth and thereby leading to economic growth. They also pointed out new innovation and venture capital leads to job creation and structural change giving rise to a new better economy.

The findings shows that technology and efficiency and economic growth had a highest Pearson correlation of 0.72, followed by 0.71 economic growth and natural resources an indication of strong positive correlation between the variables. Technology and efficiency and natural resources had the least and week Pearson correlation of 0.06 followed by technology and efficiency and venture capital had a Pearson correlation of 0.38. The findings indicates that the study variable were positively correlated.

Multiple regression was carried out to determine whether a group of variables together predict a given dependent variable. In this study, it was Venture capital, Natural Resources, Technology & Efficiency and Human resources against Economic growth as the dependent variable. Show that there is correlation between the

predictor's variables (Venture capital, Natural Resources, Technology & Efficiency and Human resources) and Economic growth.

5.3 Conclusion

From the study, it can be concluded that there is positive effect of venture capital on Economic Growth. The study has shown a positive and significant relationship between economic growth and venture capital financing. This is to say that increased venture capital financing improves performance of the Economy. In Conclusion Venture capital leads employment growth and thereby leading to Job Creation and new innovation in the economy.

Economic growth is constrained by lack of capital resources, skilled human capital, technological resources and availability of Natural resources. Venture Capital is part of Capital Resource. However an Economy can still perform well with increase in Technology, skilled human capital and availability of Natural resources.

5.4 Recommendations

Venture capital is an Important source of Business Financing especially Start ups and new innovations, however its potential have not been utilized. The Government should provide a sensitization program to educate potential Citizens with good ideas and new innovations on use Venture capital Financing.

Venture capitalist Firms should be registered and well advertised in order for innovators to source Funds from them. They should also be put under one regulatory Authority. Their Ethics and governance issues checked for the public to have confidence in them.

5.5 Limitations of the Study

The need for a comprehensive study was hampered by time and other resource constraints. Despite frantic follow ups, responses from key informants, especially those at the national level, were generally poor.

One of the limitation to the study was that data used was secondary data which limits its findings in reliability as explaining the true position of the phenomenon under review. The use of secondary data limits the findings in reliability as generalizing the results might not give true position of the phenomenon under review.

The research was limited only to the effects of Venture Capital financing to economic growth while there are other economic factors that significantly affects economic growth. This limited the results as without studying the other factors; the findings assume that this is the only factor (determinant) of economic growth

5.6 Suggestions for Further Research

There is need for further studies to carry out similar tests for a longer time period in Kenya. Similar studies should also be carried out on other Countries to assess the impact of Venture Capital on their economic growth.

There is also need to conduct further studies to establish why Investors and new innovators do not prefer Venture Capital funds in spite of the growth that arise in the economy when using Venture Capital financing as an alternative source of financing.

REFERENCES

Abel, A.B., & Bernanke, B.S., & Croushore, D. (2008). *Macro Economics* 6th Edition. Addison Wesley Publishers.

Beardshaw, J., & Brewster, D., & Cormack, P., & Ross, A. (2001). *Economics a students guide* 5th Edition. Financial Times and Prentice Hall Publishers

Brigham, D. (2008) *Intermediate Financial Management* 10th Edition. Shefi Publishers.

Brigham, E.F., & Ehrhardt, M.C. (2010). *Financial Management text and Cases 6*th Edition.

Burda, M., & Wyplosz, C. (2012). *Macro Economics* 5th Edition. Oxford University Press.

Capital Markets Authority Website. Nairobi, Kenya.

Central Bank of Kenya Website. Nairobi, Kenya.

CFA Institute (2013) *Level 1 Book Five Alternative Investments 2013.* Virginia, USA.

CFA Institute (2013) *Level 11 Book* Five *Alternative Investments 2013.* Virginia, USA

CFA Institute (2013) *Level 111 Book Five Alternative Investments 2013.* Virginia, USA

Economic Development Council (IECD) (2010), *Institutions and Venture Capital International* Lagos, Nigeria.

East Africa Venture Capital Association (EAVCA (2016), *East Africa Financial Private Equity Deal Dashboard Review 2016,* Nairobi, Kenya

Deloitte Africa (2007) *Private Equity Confidence Survey 2017,* Nairobi, Kenya.

Finkel, R.A. (2009), *The Masters of Private Equity and Venture Capital,* Management Lessons from the Pioneers of Private Investing. New York, USA.

Grinblatt, M., & Titman, S. (2002) *Financial Markets and Corporate Strategy* 2nd Edition.MC Graw hill education Publishers.

I & M Burbidge Capital and East Africa Venture Capital Association (EAVCA (2017) *Annual East Africa Financial Review 2017,* Nairobi, Kenya.

Kenya National Bureau of Statistics (2006) *Economic Survey 2006*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2007) *Economic Survey 2007*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2008) *Economic Survey 2008*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2009) *Economic Survey 2009*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2010) *Economic Survey 2010*, Nairobi Kenya

Kenya National Bureau of Statistics (2011) *Economic Survey 2011*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2012) *Economic Survey 2012*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2013) *Economic Survey 2013*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2014) *Economic Survey 2014*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2015) *Economic Survey 2015*, Nairobi, Kenya.

Kenya National Bureau of Statistics (2016) *Economic Survey 2016*, Nairobi, Kenya.

Kothari, C.R., & Gaurav, G. (2004). *Research Methodology, Methods and Techniques*. New age international Publishers, New Delhi, India.

KPMG and East Africa Venture Capital Association (EAVCA) (2007) *Private Equity Sector Survey of East Africa 2007,* Nairobi, Kenya.

KPMG and East Africa Venture Capital Association (EAVCA (2014) *Private Equity Sector Survey of East Africa 2014,* Nairobi, Kenya.

KPMG and East Africa Venture Capital Association (EAVCA (2015) *Private Equity Sector Survey of East Africa 2015,* Nairobi, Kenya.

KPMG and East Africa Venture Capital Association (EAVCA (2016) *Private Equity Sector Survey of East Africa 2016*, Nairobi, Kenya.

Mcmenamin, J. (1999) *Financial Management* Routledge Publishers

Mugenda, O. & Mugenda, M. (2003) *Research Methods – Quantitative & Qualitative Approaches.* Nairobi: ACTS publisher.

Ramsinghani, M. (2014). *The Business of Venture Capital Second Edition,* John Wiley & Sons Publishers, USA.

Rudiger, D. & Stanely, F. (1994) *Macro Economics* 6th Edition.MC Graw hill education Publishers.

Ryan, B. (2007) *Corporate Finance and Valuation* Thomson 2007 Publishers

Schvaneveldt, J. (2006). *Understanding Research Methods*, 2nd Edition, Longman Publishers, Nairobi, Kenya.

Venture Capital For Africa (VC4A) Website Nairobi, Kenya.

Westerfield, R., & Jaffe *Corporate Finance 2nd Edition* MC Graw hill education Publishers.

World Bank Website

APPENDICES

Appendices I: Introductory Letter.
10th October 2017

Dear respondent,

RE: DATA FORM

I am a student at University of Nairobi undertaking a Masters in Business Administration (Finance Option) and currently undertaking a research on **The relationship between Venture Capital and Economic growth in Kenya.**

In regard to the above, your Institution has been selected to provide information needed to meet the objective of this study. I kindly request you to provide this information required to carry out this research. The information will be used for academic purposes only.

Please note that the information obtained will be used for research purposes only and will be accorded the required confidentiality.

Your assistance will be highly appreciated. Thanking you in advance.

Yours Sincerely,

Fredrick Wambugu Nguyo.

Appendix II: Data

Year	Number of Deals	Amount of Venture Capital Invested In Kenya	Economic Growth Rate (E.G.R)
2006	15	90,000,000,000	6.40
2007	17	95,000,000,000	7.00
2008	2	5,000,000,000	1.50
2009	3	7,500,000,000	2.70
2010	4	10,000,000,000	5.80
2011	12	110,000,000,000	4.40
2012	5	20,000,000,000	4.60
2013	20	150,000,000,000	5.40
2014	23	100,000,000,000	5.60
2015	26	200,000,000,000	6.10
2016	23	40,000,000,000	6.00
	150	827,500,000,000	

Natural Resources												
YEAR												
ECONOMIC GROWTH RATE												
	E.G.R	**E.G.R**	**E.G.R**	**E.G.R**	**E.G.R**	**E.G.R**	**E.G.R**	**E.G.R**	**E.G.R**	**E.G.R**	**E.G.R**	
SECTOR	**Contri**	**Contri**	**Cont**	**Cont**	**Cont**	**Cont**	**Cont**	**Cont**	**Cont**	**Cont**	**Cont**	

			ri	ri	ri	ri	ri	ri	ri	ri	ri
Agriculture	1.13	0.59	0.3225	0.61	1.19	1.01	1.16	1.05	0.97	1.31	1.07
Forestry	-0.01	-0.01	0.012	0.02	0.05	0.03	0.03	0.05	0.04	0.01	0.08
Fishing	0.04	0.03	0.006	0.01	0.03	0.02	0.02	0.03	0.01	-0.05	-0.08
Mining	0.02	0.06	0.0105	0.01	0.04	0.03	0.03	-0.04	0.14	0.13	0.1
Electricity Supply	-0.05	0.19	0.0225	0.03	0.04	0.02	0.03	0.14	0.12	0.2	0.16
Water and Sewarage Services	0.02	0.01	0.009	0.02	0.04	0.03	0.03	0.01	0.03	0.02	0.05
Total	**1.15**	**0.86**	**0.38**	**0.71**	**1.4**	**1.14**	**1.31**	**1.24**	**1.31**	**1.61**	**1.37**
Technology / Efficiency Factor											
Information and Communication	0.66	1.21	0.0405	0.07	0.15	0.1	0.09	0.36	0.51	0.29	0.37
Professional, Scientific and Technical Activities	-	-	0.003	0.01	-	-	-	0.06	0.04	0.04	0.07
Total	**0.66**	**1.21**	**0.04**	**0.08**	**0.15**	**0.1**	**0.09**	**0.43**	**0.55**	**0.33**	**0.43**
Human Resources											
Administrative and Support Service Activities	-	-	0	-	-	-	-	0.02	0.03	0.02	0.05
Public Administration and Defence	-0.06	-0.08	0.075	0.14	0.32	0.22	0.25	0.1	0.22	0.23	0.19
Education	0.05	0.15	0.0945	0.16	0.36	0.26	0.25	0.39	0.55	0.37	0.38

Human Health and Social Work Activities	0.08	0.09	0.036	0.07	0.15	0.11	0.11	0.12	0.15	0.11	0.09
Arts Entertainment and Recreation	0.17	0.15	0.051	0.09	0.19	0.14	0.15	0.01	0.01	-	0.01
Other Service Activities	-	-	0	-	-	-	-	0.04	0.04	0.04	0.04
Activities of Households as Employers	0.01	0.01	0.006	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Taxes on Products	1.4	1.62	0.177	0.32	0.71	0.51	0.53	1.02	0.44	0.36	0.57
Total	**1.64**	**1.93**	**0.44**	**0.78**	**1.75**	**1.25**	**1.31**	**1.71**	**1.45**	**1.13**	**1.33**
Others											
Manufacturing	0.62	0.62	0.162	0.27	0.57	0.42	0.42	0.56	0.29	0.41	0.29
Construction	0.19	0.21	0.057	0.11	0.25	0.18	0.19	0.25	0.62	0.71	0.52
Wholesale and Retail Trade	1.04	1.09	0.153	0.26	0.59	0.46	0.47	0.57	0.55	0.48	0.27
Transport and Storage	0.52	0.42	0.114	0.2	0.44	0.34	0.33	0.09	0.38	0.57	0.54
Hotel and Accomodation Services	0.2	0.24	0.0165	0.05	0.1	0.07	0.07	-0.06	-0.25	-0.02	0.14
Financial and Insurance Services	0.15	0.22	0.0555	0.12	0.28	0.23	0.2	0.31	0.23	0.24	0.37
Real Estate	0.22	0.2	0.0765	0.13	0.28	0.19	0.2	0.31	0.47	0.62	0.73
Total	**2.95**	**3**	**0.63**	**1.13**	**2.51**	**1.91**	**1.89**	**2.03**	**2.28**	**3.03**	**2.86**
Grand Total	**6.4**	**7**	**1.5**	**2.7**	**5.8**	**4.4**	**4.6**	**5.4**	**5.6**	**6.1**	**6**