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GAZI UNIVERSITY
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PRIMARY EDUCATION AS A LEAD FORCE IN HUMAN CAPITAL FORMATION AND ECONOMIC DEVELOPMENT IN SOUTH SUDAN

KIDEN SAWALA LAKI LUKUDU

DEPARTMENT OF ECONOMICS
ECONOMIC DEVELOPMENT AND GROWTH

OCTOBER 2017

GAZİ ÜNİVERSİTESİ

Gazi

1926

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MASTER'S THESIS

DEPARTMENT OF ECONOMICS

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SOCIAL SCIENCE INSTITUTE

OCTOBER 2017

The thesis titled “Primary Education as a Lead Force in Human Capital Formation and Economic Development in South Sudan” which was prepared by Kiden Sawala Laki Lukudu as Master’s Thesis at the Department of Economics in field of Economic Development and Growth has been accepted by the undersigned jury with MAJORITY VOTES

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Defending Date: 03/10/2017

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Prof. Dr. Hilmi ÜNSAL

Sosyal Bilimler Enstitüsü Müdürü

ETHICAL DECLARATION

In this thesis study which I have prepared in accordance with the Thesis Writing Rules of Gazi University Institute of Social Sciences; I would like to declare that:

- I have obtained the data, information, and documents that I have provided in the thesis within the framework of academic and ethical rules,
- I have provided all information, documents, evaluations, and results in accordance with scientific ethics and code of ethics,
- I have indicated the source of the works that I have used in the thesis work by appropriate references,
- I have not made any changes to the data that I have used,
- That the work that I have provided in this thesis is original,

And that I accept that in case of the contrary, I am accepting all liabilities which may arise.

Kiden

KIDEN SAWALA LAKI LUKUDU

03/10/2017

GÜNEY SUDAN'DA BEŞERİ SERMAYE OLUŞUMU VE EKONOMİK KALKINMADA ÖNCÜ BİR GÜÇ OLARAK TEMEL EĞİTİM

(Yüksek Lisans Tezi)

KIDEN SAWALA LAKI LUKUDU

GAZİ ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ

Ekim 2017

ÖZET

Beşeri sermaye, eğitim, sağlık ve iş başında eğitim gibi alanlara yapılan bir yatırım olarak tanımlanır. Beşeri sermaye, emek ve emek-dışı piyasa faaliyetlerinde verimliliği arttırır ve bir ülkenin ekonomik kalkınması ile ilişkilendirilir. Gelişmiş ülkelerden elde edilen veriler eğitim, sağlık ve işbaşında eğitimi desteklemenin ekonomik büyüme ve kalkınmayı geliştirdiğini göstermektedir. Diğer yandan son 20 yılda gelişen ekonomilerden elde edilen veriler ise eğitim ve sağlık gibi alanlara yatırım yapmanın ekonomik kalkınmanın motoru olduğunu göstermiştir. 2011 yılının Ocak ayında yapılan bir referandum vasıtasıyla Güney Sudan Cumhuriyeti'nin Sudan'dan barışçıl bir şekilde ayrılışını takiben 9 Temmuz 2011 tarihinde Güney Sudan Dünya'nın en genç ulusu haline gelmiş ve Afrika'nın 55. ülkesi olmuştur. Bu yeni ülke, 50 yıllık savaşın kalıntısı ve istikrarsızlığının yanı sıra önemli ölçüde kalkınma ihtiyacı ile yüz yüze gelmiştir. Ülke 2/3'ü 30 yaşın altında olan genç bir ülke olmasının yanı sıra okuma yazma oranı %27 seviyesindedir. Bu zorlu tablo, ülkenin önemli ölçüde cinsiyet eşitsizliği ve pek çok insani gelişme zorlukları ile katlanmaktadır. Güney Sudan, görece az gelişmiş ve Dünyada çoğunlukla petrole bağımlı bir ekonomidir. Güney Sudan'ın ihracatının neredeyse toplamı ve GSYH'sinin %60'ı petrolden oluşmaktadır. Ülkenin işgücü, önemli ölçüde düşük beşeri sermayeye sahiptir. Bu durum, özellikle genç işçiler için okuryazarlığın, beceri eğitimi ve diğer türdeki eğitimin önemini ortaya koymaktadır. Nerdeyse bu işçilerin 10 tanesinden 9'u herhangi bir niteliğe sahip değildir ve bunların yalnızca % 2'sinden azı ortaokul sonrası eğitime sahiptir. Eğitim seviyesi, kentliler, erkekler ve zenginler arasında daha yüksek olmasına rağmen bu kesimlerin çoğunda bile eğitim yoktur. Aktif nüfus içinde ücretsiz kesimin payı, yüksektir ve tarım kesimi istihdamda düşük verime sahip işçilere sahip olarak önemli role sahiptir. Bu alanda çok fazla çalışma yapılmadığı için bu çalışma ülkedeki gerçek beşeri sermaye oluşumunu incelemeyi amaçlamaktadır. Aynı zamanda bu çalışma Güney Sudan'da temel eğitim ve sağlık alanına yatırım yapmanın ekonomik kalkınmaya katkısını gösteren önceki çalışmalara da değinmektedir.

Bilim Kodu : 117203
Anahtar Kelimeler : Temel Eğitim, Beşeri Sermaye, Ekonomik Kalkınma
Sayfa Adedi : 74
Tez Danışmanı : Yrd. Doç. Dr. Erol BULUT

PRIMARY EDUCATION AS A LEAD FORCE IN HUMAN CAPITAL FORMATION AND ECONOMIC DEVELOPMENT IN SOUTH SUDAN

(M. Sc. Thesis)

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GRADUATE SCHOOL OF SOCIAL SCIENCES

October 2017

ABSTRACT

Human capital is defined as an investments in areas such as education, health, and on-the-job-training, it enhances productivity in the labor and non-labor market activities, and has always been connected to economic development of a country. Evidence from developed countries experiences supporting education, health and training in promoting economic growth and development, promoted in the last two decades developing countries to investments in those areas as an engine of economic development. Following a peaceful secession from the Sudan through a referendum in January 2011, The Republic of South Sudan became the world's newest nation and Africa's 55th country on July 9, 2011. The new nation, faces dual challenge of 50 years of war legacy and instability, alongside massive development needs. The country is very young with two-thirds of the population under the age of 30, literacy rate of 27% coupled with a significant gender disparities and several human development challenges. South Sudan remains relatively undeveloped and is the most oil-dependent country in the world, with oil accounting for almost the totality of exports, and around 60% of its gross domestic product (GDP). The labor force is extremely characterized by low levels of human capital. This shades light to the importance of literacy, skills training and other forms of education, especially for young workers. Nearly nine out of ten workers are without any qualification, while less than two percent possess post-secondary education. Education levels are higher among urban residents, among males and among the wealthy, but by far the largest share of even these groups have no education. Non-wage sector is found to host a large share of active population, and agriculture sector to be dominated with low-productivity employment. Since not so many studies were carried out in this area, this paper aims to investigate the actual reality of Human capital formation in the country, and also presenting evidence from previous studies demonstrating education's contributions to economic development to promote investment in primary education and health in South Sudan if it wants to breakout and develop its economy.

Science Code	:	117203
Key Words	:	Primary Education, Human Capital, Economic Development
Page Number	:	74
Supervisor	:	Assist Prof. Erol BULUT

ACKNOWLEDGEMENT

I wish to thank my proffesors who were more than generous with their expertise and precious time. Many thanks to Dr. Erol Bulut, my supervisor for making things easier throughout the entire process of writing this work . a special Thank you to Dr. Sevket toyloglu for steering me into the right direction since i chooce this topic.I would like to acknowledge and thank my school division for allowing me to conduct my research and providing any assistance requested. I would also like to thank the beginning teachers, mentor-teachers and administrators from my home country south sudan, Without their passionate participation and input, this work could not have been successfully conducted. Finally I would like to thank and acknowledge Türkiye Bursları for giving me the chance to peruse my postgraduate studies in Gazi University, without all the mentioned parties this wouldn’t have been possible to achieve. Thank You

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LIST OF ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
CDF	Constituency Development Fund
COB	Controller of Budget
CPI [M]	Communist Party of India [Marxist]
CRA	Commission on Revenue Allocation
DA	District Assembly
DFRD	District Focus for Rural Development
ERS	Economic Recovery Strategy
FY	Financial Year
GDP	Growth Domestic Product
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HPI	Human Poverty Index
KANU	Kenya Africa National Union
LATF	Local Authority Trust Fund
MCAs	Members of County Assemblies
MDGs	Millennium Development Goals
MTEF	Mid-Term Expenditure Framework
NARC	National Rainbow Coalition
NGOs	Non-Governmental Organizations
NPEP	National Poverty Eradication Plan
OCOB	Office of the Controller of Budget
PDCD	Parti Démocratique de la Cote D'Ivoire
PFMA	Public Finance Management Act
POs	People's Organizations
PPP	Purchasing Power Parity
PRSP	Poverty Reduction Strategy Papers
SAPs	Structural Adjustment Programs
SDD	Social Dimensions of Development

UNDP	United Nations Development Programme
VAT	Value Added Tax
WDR	World Development Report

1. INTRODUCTION

Human capital is simply the stock of skills that the labor force obtain or possesses. The theory points out health and education as cornerstones to build an effective labor force which is one of the main inputs of production. Now, the linkage between basic education and development has been explored by many studies, where most of those studies focused on comparing the spread of education in different countries in their early stages of economic development. Results showed that spread of primary education on a national level positively impacts the economic development of developing countries. Furthermore, the World Bank Policy Paper on Primary Education (1990) and the (1995, 1999) education policy papers basically promoted the human capital line of thought and pointed out that education is the key element of economic growth and social development, and that promoting literacy and numeracy through primary education lays the foundation for a more productive labor force.

1.1 Statement of the study

The term Human capital can be described as the skillfulness possessed by those in the labor market which many times those possess them consider them as a resource or asset. It includes perception that investment in people includes sectors in education as well as health which in turn increases their productivity.

The notion of human development centers within the perception that wellbeing of human beings revolves around many factors and is not limited to their economic capacity. For example Michael Todaro defined economic development as an enhancement of the standards of living conditions, enhancement of the citizens self-esteem needs and free and a just society. He proposes that the most accurate way of determining the economic development through rate of literacy and mortality rate which has a direct relation on the GDP as well as labor productivity.

The accumulation of physical capital and labor has significant bearing for economic growth, but there is also another factor which certainly may not be neglected, human capital has a considerable contribution to development as well.

With Becker (1965) emphasizing the importance of the productivity-enhancing role that human capital plays, And Schultz highlighting European nations, explaining and linking their raise in the country's productivity and workers earnings as emanating from venture in human capital.

Education in every sense According to these economists became the essential factor in the economic progress. It also explains that in order for nations to attain extensive economic progress they must embark in human capital. Education is vital to human beings as it boosts their understanding in different aspects as well as their living standards which improves the society's welfare. Education is vital in improving individual's skills in owning businesses and when it comes to high-tech advancement. It plays other roles in bringing equity in the society and socio-economic development. Now the most important question is what type of education is necessary to a country with low levels of economic development?

Around the globe, people view primary education to be very essential and is very esteemed by the populace. This is because of its role in building the background of the individuals which is supposed to help one as he or she climbs the academic ladder. This level is very significant especially as one advances as this forms the basis for those other academic levels hence it's vital to go through this stage. Primary education is defined as the curriculum for the children below the age of 12 years as it's the entry level and forms a background for these young individuals. This stage is so significant such that the entire education system depends on it to reveal whether the education system is a failure or success and it's defined as universalization as every person must pass through this level.

Another component of the human capital is capital health. Researchers noticed that improving the living conditions of an individual through increasing in health level, has effects both on the micro level by advancing their wellbeing as well as that of the society where live and their locality by advancing the economic growth as well as economic development.

Several economic studies have focused on the analysis of the interesting link between education and health in order to verify the hypothesis of a causal relationship. There are three principal explanations in literature:

1. Causal relationship starts from education to health, so an increase in education involves an enhancement of health conditions.
2. Causal relationship starts from health to education, so an improvement in health can lead to an increase in the level of education, since healthy people have a more developed learning process.
3. The link between education and health does not imply a causal relationship, instead it implies a spurious one.

Now the purpose of this study reconsiders the connection between human capital and economic development in South Sudan Since significance of education and human capital has been brought out in many studies and arguments of economic growth and development.

1.2 Aim of the study

The general objective of the study is to examine the impact of Human Capital through investment in primary education and health on the economic development of South Sudan. Specifically, the study:

- looks at literature review of human capital and economic development.

-Establish an understanding of primary education and health characteristics within the context of economic development

- Investigate the drivers of human capital development in South Sudan

- Survey the economic evidence in support of a strong focus on primary education and health.

1.3 Significance of the study

Education is vital to human beings as it is viewed as the way of developing understanding and skillfulness and also development of human capital theory. This theory is vital in improving understanding as well as skillfulness which in turn enhances society welfare particularly in the current civilization whereby people believe education is vital in socio-economic growth as compared to the past. In developing countries investment in primary education is one of the strongest and most often used economic arguments based upon the concept of human capital. The basic premise of human capital theory is that investment in human resources results in improved productivity. In theory, the costs of the investments can be calculated along with the benefits of improved productivity, and an economic rate of return can be assigned to human capital investments, just as to any other type of investment.

Looking at Sudan's economy, it's weak as well as small. The ruling government has failed in the macroeconomic policies due to the fact that all its functions are centralized to the capital city, Khartoum (Sudan).Since the country attained its independence, efforts have been devoted towards boosting economic growth by creating enabling environment. Efforts have also been directed towards the education sector but despite the increased enrolment the learning conditions still ranks top in the world's worst performing countries in the sector. According to a report by (UNICEF), nearly one and half million children from the rural areas do not attend school and the existing ones are not favorable for learning**.** Low rates of primary school completion and high gender, geographic and wealth disparities pose enormous challenges to the development of South Sudan. The importance of this study lies on that education affect people's lives and economic and social development in many ways. It improves labor market outcomes both in terms of employment rates and earnings. These results are consistent across a wide range of countries, confirming that education have a profound relationship with economic and social outcomes across a wide range of contexts and institutions. Investing in human capital is the single most effective way of not just promoting growth but also of distributing its benefits more fairly.

1.4 Methodology

1.4.1 Framework

Human capital significance has been stressed by various economists and by various economic models. Adam Smith (1776) was among the fore-runners to study this phenomenon. His study revealed that human talents are vital for economic growth and development of a nation as they play a critical part in improving the society. Becker (1962, 1964), Schultz (1961, 1962) and Mincer (1958, 1962, and 1974). These studies renewed the notion that there exists a relationship between growth of GDP and the income of the citizens. Income differential occurs when there is variation in experience and education level in the labor market. There is enough literature supporting the importance of human capital theory, in its role in the education policies. The basis for education begins with significance of education to the society as it plays a vital role in its affluence for success.

There are international bodies which find the proxies of education and growth of GDP like the (OECD).There have been recent policies released by the EOCD on the level of education in various countries around the world and their impact to their growth in GDP.

Education has proved many a times on its role in shaping the future of many youths across the world as it gives them various opportunities in the society. Many learned people in the society have advantage over their counter parts as they excel in various fields like finance, technology, hospitality among many other hence many become financially independent and reduce the dependency ratio which is high especially in many African states. Further, education has spillover effects on other sectors as it also impacts on the wellbeing of individuals as well which also improves the status of the society.***(OECD, 2005).***There are various statements used for setting the levels of impact of education to the society.

The World Bank Policy Paper on Primary Education (1990) and subsequent education policy papers (1995, 1999) basically argued along the human capital line of thought. They pointed out that education is the cornerstone of economic growth and social development, and that primary education lays the foundation for a more productive labor force through promoting literacy and numeracy. Primary education also provides the foundation for secondary and tertiary education and training.

1.4.2 Hypothesis

This research tries to analyze the correlation between human capital investment in primary education and health and economic development in South Sudan. The hypothesis are:

1. Based on developing countries experiences, South Sudan investment in heath and primary education is a must for achieving economic development.
2. Effective expansion of primary education strongly affects economic development in the country.
3. Better health affects both education and economic condition of the country positively.

1.4.3 Scope and limitations

This study is focusing on the following indicators for each topic:

1. Economic development

- GDP per capita, PPP ($)
- GDP growth (annual %)

2. Health

- Life expectancy at birth, total (years)

3. Education

- Pupil-teacher ratio, primary.
- Number of student enrollment in primary education Boys/Girls

1.4.4 Data collection.

The data will be collected from the ministry of higher education, ministry of finance, South Sudan central bank, World Bank (WB) reports, and United Nations International Children's Emergency Fund (UNICEF).

1.4.5 Data analysis

The study will focus mostly on experience of developing countries with similar economic characteristics of South Sudan. In addition, statistical scaling method will be used to find correlation between chosen health, education and economic variables using SPSS statistical analysis.

2. LITERATURE REVIEW

2.1 The concept of human capital

The above concept categorizes the characters attained by education and which increases income**.** It's a combination of human and capital. Capital in the economic perspective is the production aspects for creation of commodities. Where human in the economic perspective, is the main subject to administrate the major industries in the economy which include service and manufacture**.** More than often it is taken to incorporate peoples' knowledge and skills, attained to a certain degree through education, but can also be composed of their strength and drive, which relies on their health and nutrition.

Human capital theory centers its importance on two aspects in education and health which contradicts with other theories setting production as also a vital aspect in improving living standards of citizens. To apprehend importance of the phenomenon under study it's vital to include other aspects which play part in the development of human capital.

Many studies have proved in different countries that highly educated individuals are paid higher than their counter parts and pay increases with the level of education**,** but those studies does not follow that pattern of the association linking education to income**,** rather it foresees that an increase in knowledge and skills brings extra benefits for both individuals and societies.

Before the nineteenth century, investment in human capital importance was not acknowledged in any country. Government expenditures on education, on-the-job training, and other related forms of investment were small scale. This started to change during this century with the science application into production the development of new goods, first in Great Britain, and then slowly in other countries.

The levels have increased tremendously during the twenty first century as it becomes more important in economic growth and development in different countries. Education has become so important that it's now the determinant of the nation's living standards as the countries with highly educated citizens usually has different skills set which boost production and economic growth and development of the majority of its population[1].

Based on such history education proved to be a fundamental aspect of human capital theory because it is considered as the prime way in developing skills**.** The study by Mincer revealed that the earnings of individuals vary depending on their education levels. Mincer's educational "attainment," approach is measured by years of education completed. However, some studies were concerned with the actual knowledge and skills gained through education. Existing literature places importance of good scores which have greater impact on economic returns than school attainment. However, there is the argument of grades achieved in school having greater impact" being a means of entry to higher levels of education" than on economic return. For grades achieved determines admission to universities and colleges in which greatest individual economic benefits can be gained. Having improved learning school curriculum is therefore important in improving the living standards of people in the society.

Furthermore, research by Becker argues that human capital investment can impact on the prospective earnings of people and increase their medical covers as well as other utilities. Where, the increase in wag rate leads to the improvement of health that may improve work productivity and shows the decreasing in death rate at working age[2]. Becker simply views this prospect as vital in creation course. Human capital raises labor output in each area but the ratio of output is varying in various circumstances.

In spite the ambiguity that occurs in human capital, in the course of output, we can view it as having same objective which is having the necessary skills to accomplish the tasks assigned[3].

In the early 1960s Schultz instituted what was to become the human capital revolution in economic thought. He argued that human capital is the accumulation of previous investments in education, on-the-job training, health, migration, and other factors that increase individual

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[1]Ilhan ozturk (2001) "The Role of Education in Economic Development: A Theoretical Perspective "Online at http://mpra.ub.uni-muenchen.de/9023/ MPRA Paper No. 9023, posted 8. June 2008 11:31 UTC)
[2]Becker, Gary S. (1962), Investment in Human Capital: A Theoretical Analysis. Journal of Political Economy, vol. 70(5, Part 2, Supplement), pp. 9-49.
[3]Acemoglue and Autor.Lectures in Labor Economics.

productivity and, therefore, earnings. In his words” *the term consumption composes of the venture in human assets. The benefits of human capital investment is clear as it places individuals at a better place to accessing better prospective in their life. The opportunity cost of attending school at later stages in life to attending at early ages is clear to see. Despite that, these opportunity costs are not accounted for. Further, the time spend attending school at later age is mostly not accounted for either.* *From the above statements, it’s clear that human knowledge and skills can be advanced at any stage in their life. In a nut shell, human capital increases the amount that individuals earn from their real income”*[4].

Today, human capital and its considerable contribution to development in terms of building its foundation are credited to the works of Becker, Schultz and Mincer. These economists revived this old concept by affirming its relationship with economic growth and by emphasizing its importance.

Recently, there have been changes in terms of technological advancement, economic recession among many nations which has encouraged many companies to practice fresh ideas to maintain competitive advantage. The result was that their success in large part depends on people with higher levels of proficiency. In the end, the people are realized within the framework of human capital as valuable assets.

2.2 The concept of economic development

Economic development is the study of how economies of various countries are turned from economic recession and from low earning country to middle earning country, and overcome problems of absolute poverty. The economic development differs from traditional economics which focuses on optimal allocation of resources to priority sectors to boost production and overtime this boost economic growth which in turn leads to economic development by diversifying on variety of goods and services in a country. Plus, the traditional economic perspective focuses on individual organization and person in coming up with economic judgment.

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[4]Theodore W. Schultz, “Investments in Human Capital”, The American Economic Review, Vol. 51, No. 1.(1961), p.1

It also differs from political economy which encompasses more aspects as compared to other pillars of economy like social pillar which focuses on the welfare of the citizens as well as the efficiency of institutions while political pillar focuses on how certain individuals' impact on economy as a whole. Political economy is therefore concerned with the correlation that exists between phenomenon under study and economy, with the focus on the impact of politics on economy**.**

Development economics can also be expounded to a larger extent. Instead of focusing on its traditional role, of optimal allocation of resources to priority sectors to boost production and overtime this boost economic growth which in turn leads to economic development by diversifying on variety of goods and services in a country, it can be expounded to include its role in improving the living standards of its citizens as well as other social factor economies[5].Often there is confusion between economic development and economic growth, but it's important to differentiate between the two. Economic growth refers to the rise in the value of everything produced in the economy, it's essential but not the only condition for economic development. Conversely, Economic Development is the increase in the economic wealth of a country or a particular area, for the welfare of its residents. (Read more:http://keydifferences.com/difference-between-economic-growth-andeconomic-development.html#ixzz4QdjHxPAh).

The concept of human development centers reveals that living standards of individuals revolves on different aspects, as most of them are not enclosed in the traditional measures of economic income[6]. Health and education has been given a special attention as measures of living standards of individuals**.** In traditional, the proxies for economic performance include factors i.e. (expenditures on schools and medical expenses). This identifies inputs rather than outputs.

Many scholars have concurred that these two variables are hard to approximate, as they have different on various sectors of the economy. Although high incomes may be contributive these factors, it's very difficult attribute them to any sector of economy**.** Many governments around the world have subsidized them due to their importance to their economy. Many, if

[5]Micheal P. Todaro, Stephen C.Smith "Economic Development, 11th Edition".
[6]Griffin and Knight, 1990; UNDP, 1990**.**

not most, are services created by the public sector, where Governments play a direct role in providing services that is linked to human welfare.

Mainly Health effects are measured through mortality statistics. It consists of, life expectancy at birth which mostly focuses on age specific mortality rates for all age groups.

Educational indicators include literacy, the average number of years of education and the highest level attained (primary, secondary, or territory). These measures are convenient for determining the economic achievements of a nation. Other proxies used include the enrollment in both primary and secondary institutions but generally the most used measures of economic development and society's welfare is the human development index (HDI).

The HDI was developed by the UNDP to emphasis that individuals and their capabilities should be the basis of a country's development evaluation, not just its economic growth. The HDI usefulness is seen in the questioning of national policy decisions, the understanding of human development outcome differences in two countries with the same GNI per capita levels. These contradictions can lead to debate about government policy priorities.

The average achievement human development measurement is based on Human Development Index (HDI) three components: a long and healthy life, acquired knowledge and a decent standard of living.

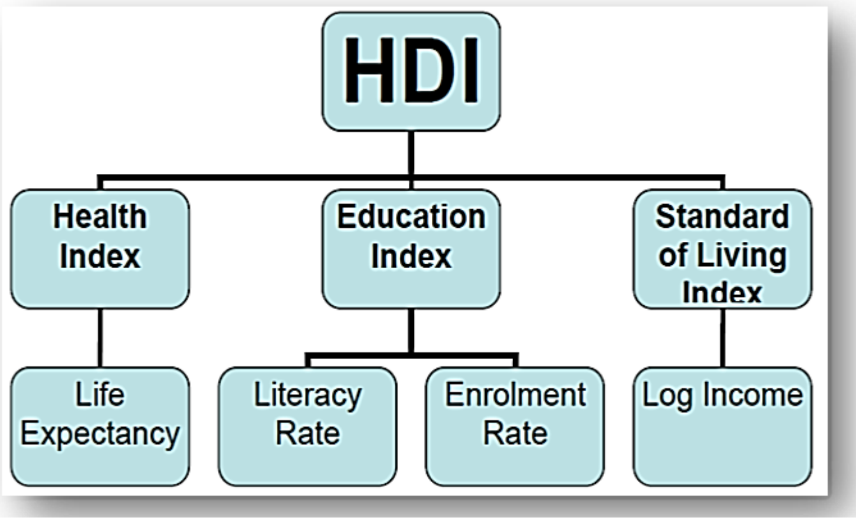

Chart 2.1. Human Development Index summary

The health aspect is assessed by life expectancy at birth, the education aspect is measured by the time spent on school from the time one enrolls to the kindergarten all the way to graduation. The standard of living aspect is measured by GDI**.** The diagram above reveals that earnings have direct relation to the GNI of a country**.** The HDI interpret and captures only part of what human development requires. It does not reflect on inequalities, poverty, insecurity, gender empowerment, etc. The Human Development Report Office (HDRO) offers a broader proxy on some of the key issues of human development, inequality, gender disparity and poverty.

A completed picture of a country's level of human development needs analysis of other indicators and information presented in the statistical annex of the report. HDI attempts to shift the focus of development towards the three factors seen as key in broadening the opportunities available to people, the 'ends' of development. Since these three factors are difficult to measure precisely, proxies are deemed to be the best indicators of the level of these targets.

2.3 Human capital and economic development

When questioned about the primary determinants of economic development in an international perspective, a typical economist, or the World Bank, is more likely to point to the important aspect of human capital formation. Now days, human capital has emerged as a key component of research for economic development and growth .The theoretical and empirical advances reflects the profound increase of economist's interest in human capital. A theoretical breakthrough emerged in models where schooling and training requires time and resource sacrifices to yield higher future earnings[7].

Empirically, there has been great evidence that schooling and other forms of human capital increase earnings significantly[8], implying that low levels of income in developing countries is partially caused by low levels of school attainment. Research on human capital has also

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[7] BECKER, G. (1964), Human Capital. A Theoretical and Empirical Analysis with Special Reference to Education, 3rd Edition, 1993, Chicago and London: The University of Chicago Press.
[8] Mincer, Jacob (1974), Schooling, Experience, and Earnings, National Bureau of Economic Research, New York.

been simplified by the development of longitudinal panel data sets on school attainment[9]. Participants in this massive research effort have recognized a large range of questions, giving increase to rich and abundant sub-literatures. At the micro level, there is persisting interest in measuring the returns to education, because human-capital investments continue to be looked at as possible course for individuals to escape poverty. Since returns to schooling seems to have a big significance in developing countries, as well as developed ones, this naturally leads to the question of the determinants of individual choices of schooling.

At the macro level these questions have counterparts, where scholars investigate the logic behind or the reasons for differences in schooling and other aspects of human capital across countries, as well as the implications of such diversities for differences in living standards[10].with many researchers looking at the macro level from different aspects they found that education as human development contributed to economic development with special attention on employment levels and education spending to reduce number of poverty in a country[11]

With the examination of demographic transitions in population and its influence on the economic development in accordance with the human capital investment in health, life expectancy, fertility rate and mortality, another study found that, Population has led to an increase in labor productivity particularly for countries that employ labor-intensive in production process[12].

On the other hand another study focused on 40 countries in Africa, found that investing in human capital through education is the most important determinant of economic development[13]. Where education enrolment has grown at all levels of education in the 20th century.

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[9]Barro, R. J., & Lee, J. W. (1993).International Comparisons of Educational Attainment. Journal of Monetary Economics, 32, 363-394.
[10]Symposium on human capital and economic development: An introduction. Journal of Development Economics, 104 (2013) 181–183.
[11]Gherghina, R., &Duca, I. (2013).The contribution of education to the economic development process of the states. Journal of Knowledge Management, economics and information Technology, 1.
[12]Tamura, R. (2006). Human capital and economic development .Journal of development economics, 79, 26-72.
[13]Seetanah, B. (2009). The economic importance of education: Evidence from Africa using dynamic panel data analysis. Journal of Applied Economics, XII (1), 137 – 157).

A study in the United States found a direct relation between the level of education and the economic performance of the country. Study outcomes shows that a higher education level, revels that individual with a high human capital level is more likely to generate higher earnings to the citizens to cater for rising cost of living[14].

Another study discussing the impact of economic growth on the living standards of the population in South American countries argues that there exists a strong and positive relation among the variables as it**,** reduces human capital depreciation and attracts population into having long life[15]. That good health indicates the purchasing power of individuals as they can afford supplement and nutrition depending on their earnings. This leads workers to be able to work hard and increase productivity.

2.4 Producing human capital: education and training

2.4.1 Measuring the impact of education and training

Several problems arise when researchers try to estimate the real correlation between education and income. The discussion normally revolves around whether higher earnings gained by better educated or more-trained individuals (workers) are directly caused by their higher education or training, or whether workers with much greater earnings and ability opted to acquire more education or training. If the latter is true, then a simple estimation of the returns to education or training will be too huge, as they will be unable to differentiate between the separate contributions of education and training and will attribute them both to education and training. Contrary, training or education is a delicate variable when the population size is not large may result to errors in the study results.

2.4.2 Returns to Education

It is almost a common knowledge that individuals with more education are more likely to earn more than individuals with less education. But according to researchers we ought to ask is how much better education is valuable? The answer seems to be is far more complex than

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[14]Winters, J. V. (2011).Human capital, Higher education institutions, and quality of life. Regional Science and Urban Economics, 41, 446 – 454.
[15]Mayer, D. (2001). The long-term impact of health on economic growth in Latin America. World Development, 29 (6), 1025 – 1033.

expected, when talking about the differences between prices or wages given to poorly and highly educated worker researchers label it as "the return to education. "The term "return" derived from the philosophy that education is a choice. Individuals can and free to auction their labor services at the higher price, and that is only achieved through "investing" in their human capital.

Considering so many factors, different approaches and different estimation technique was taken by many studies. Even though almost all studies found a direct and strong correlation between the two variables, there still exists some ambiguity on the same matter. Research from different scholars reveals that every additional year on learning institution gives a learner a competitive advantage when it comes to the job market and also increases his or her earnings by almost 15%. This implies that individuals who spend more time in an institution have higher future earnings**.** Empirical results do propose, alongside the theoretical literature, that education give farther more important wage advantages to individuals. Majority of the early studies ignored things such as and measurement error bias ability, but the more recent literature has established much more emphasis on attempting to tackle these potential problems. The direct and indirect cost of education has been ignored by majority of studies of return on education is slightly complicated as it's difficult to find the appropriate proxy for it. Scholars who embarked took into account the direct and indirect costs of education also showed a positive rate of return.

2.4.3 Education and Productivity

Obviously education is one of the major determinants of growth of GDP as well as the development as it contributes to the balance of payments through exports where technological products in various sectors are exported to other countries. For example:

- Both education and good health improve the productivity of employees in a country.
- Technical courses improve the fundamental science in state where technological goods and services can be exported hence improving the country's foreign exchange.
- It also serves to improve major departments in a country especially in government where they come in handy when designing laws and strategies for economic growth.

Studies on macroeconomic and microeconomic reveal the critical role played by education in the economy of a country. They show that earnings of an individual depend on the level of education attained[16]. The case in less developed countries seem to be different as many high income earners tend to come from technical science students[17]. This is true in the agricultural sector where those with agricultural courses have higher farm produce as compared to those that lack training in that field. A research carried out in Asian countries reveals that the farmers with farming technical skills get high yields compared to their counterparts who lack those skills and at the same time they lack skills on how to operate machinery used in farming. Scholars from different countries suggest that education alone is not sufficient to transform the economy of a country as quality is more important than quantity; this is due to the fact that many graduates lack necessary skills to transform the economy of a country. Therefore the aspect of developing human capital comes in hand. Education is only important where the graduates can apply the acquired skills to make policies that influence major sectors in the economy. Education is also vital to the country's investment as the more educated individuals, the more investments and vice versa.

Macroeconomic Theories also view education as a vital tool towards a country's growth and development. These theories emphasize that highly educated people are more likely to come up with new ways of performing tasks and boost innovation which acts as the catalyst for economic growth and also boost output[18]. Other theories literate that education has a multiplier effect where not only the learned people benefit but also those who they supervise hence increasing national output. Education also has an impact on the balance of payment as increased national output increases the exports of a nation and reduces the number of imports as more products become available hence improving the balance of payments of a country. Education is even more vital to the less developed nations through the skills it impacts to its citizens who accordingly transfer those skills to the production and boosting

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[16]Behrman, Jere R. (1990), Human Resource Led Development, Review of Issues and Development, New Delhi, India: ARTEP/ILO.
[17]Psacharopoulos, G., 1994, "Returns to Investment in Education: A Global Update", World Development, 22, 1994: 1325-35
[18]Lucas, Robert.22 (1988), "On the Mechanics of Economic Development", Journal of Monetary Economics, pp 33- 37.

the economy. These theories also state that education is also needed those less educated as it's vital for them to perform effectively[19].

2.4.4 Education and Income

Improved and more upgraded education proved to have a positive response that relates to higher income equality, which, in the other side, is more likely to lead to higher growth rates. As many more individuals favor and seek education opportunities, low-income individuals are able and more likely to seek out economic benefits. A study done in 18 countries of Latin America in the 1980s based on the relation between schooling, income inequality and poverty found out that, one quarter of workers' incomes variation was due to variations in school the level of academic qualification**;** it therefore concludes that education is the main factor in income distribution[20].

2.4.5 The Determinants and Effects of Training: What is Training?

Training is normally categorized separately from formal schooling and post schooling qualifications (which are more or less viewed as education) in most empirical studies, and is generally outlined in terms of designed courses to help individuals develop and acquire skills that can be useful in their jobs.

2.4.6 Returns to training: Do the Acquired Skills Depreciate?

The returns vary with the training acquired by an individual throughout his time in the learning institution but they start to decrease as one does not go for training and seminars. Several scholars have come out strongly supported this notion that the skills start to decline as one age as well as his or her earnings. The studies reveal that skills acquired through seminars and training can last up to a period of 20 years. The skills acquired through seminars and training last for longer time, the ones acquired through the same for semi-skilled lasts for even longer time spanning up to a period of over twenty years to those who

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[19]Wood, A., (1994), "North-South Trade, Employment and Inequality: Changing Fortunes in a Skill-Driven World", IDS Development Studies Series, Oxford University Press.
[20]Psacharopoulos, "INCOME INEQUALITY IN LATIN AMERICA DURING THE 1980s", Review of Income and Wealth Series 41, Number 3, September 1995.

acquire them (cross section data). Other Benefits of Training includes those that emanate from the probability of promotion. These employees have minimal chances of being laid-off especially when their companies are experiencing financial difficulties.

2.4.7 Spill over benefit of education and training to the economy

The benefits accrued through acquiring education are numerous hence giving a reason for state and individuals to invest in it. The spillover effect comes where the benefits from the gains of education and boosts the economic growth of a country and benefits the society as a whole. Education has both public and social benefit and separating the two becomes a challenge to the scholars who try to find out the benefits that trickle down to each. The benefits of educated population in the society are clear as educated people usually contribute to the national matters. National productivity also improves tremendously as educated people have positive externalities not only to the firms they are employed in but also to other co-workers who are less educated. Numerous studies support the importance of education to the society but many are unable to pinpoint the exact benefit to the society. Many studies point out the net benefits of education rather than net benefits and those that are specific to education.

The best examples of positive externalities come from both macro and microeconomic approximates. Many studies suggest that positive externalities are higher to the private sector than the social. Both the empirical and theoretical literature available cannot ascertain the exact benefits that emanate from education[21].

2.5 Producing Human Capital: Health

2.5.1 Investment in health as a human capital formation component

Health care services may improve workers' productivity as well as increase their quality of life. Therefore, workers with better health status yield instantaneous benefits to themselves and to their employers by acquiring and boosting their mental ability, strength, and energy

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[21]Richard Blundell, Lorraine Dearden, Costas Meghir and BararaSianesi. Human Capital Investment: The Returns from Education and Training to the Individual, the Firm and the Economy; Fiscal Studies (1999) vol. 20, no. 1, pp. 1–23.

while on the job place. Thus, more investment in health to prevent and cure disease increases enjoyment of living, and additionally enhances productivity which makes workers more valuable in their job. Therefore, for any firm and its employees, the lure to invest in health capital is strong, just as they are by investing in job training and education. Investment in health usually complements investment in education and training since returns to the latter will be higher if people can work for longer periods or at a higher level of intensity if they have better health. Similarly, returns to health will likely be higher if the labor force is better educated and more informed about what contributes to its state of wellness.

2.5.2 Health and Income

Life was "[solitary], nasty, brutish, and short." that's what Thomas Hobbes famously wrote in 1650.what he meant was that without powerful government, civil society would fall apart and enter into war with every man against every man. But with or without strong government, life was "nasty, brutish, and short," in 1650. It was filled with infectious and fetal diseases. But eventually people became healthier, lived longer, have less awful and painless lives, and now die mainly of chronic diseases, far less from infectious diseases. The main reason for the change during the 1600s up to the present can be attributed to the increase in resources that allowed people to invest more in their health. Not only that, But, also, more healthy human capital leads to increased productivity. There a lot of historical literature that attests increases in income is caused by health improvements. But again for most of history Improvement in health is the result of increased resources, not the cause.

However, studies for the more recent historical period indicated that health improvements helped increase income. These health improvements generally targets children to allow them to attend school for more days and to learn more. For instance, a study done on the impact of schooling on the health of citizens in the United Kingdom found out that the two variables have a direct and positive correlation. It revealed that the more educated individuals are healthy than the less educated individuals as they are able to live a better life than the less educated[22]**.**

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[22]Silles, M.A. (2009) "The causal effect of education on health: Evidence from the United Kingdom." Economics of Education Review, 28:122-128.

Healthy population boost economic growth through the fact that they are able to save hence can afford medication and also they mostly have insurance covers which cater for their medical bills due to the fact that they have higher earnings to the less educated people.

2.5.3 Measures of Health

The concept of Health stock is different from that of human capital in the sense that the later can be acquired through education while health can't be valued in monetary terms. Health is vital to the economic growth of a nation therefore healthy nation is vital to economic growth. It can be viewed from the general population point or from an individual perspective:

A. Outcome Indicators

The indicator of stock of health can only be achieved through individual through the surveys carried out regularly. The true heath status of a nation is revealed through the number of healthy people in the total population as compared to the number of unhealthy individuals in a nation. The second one is the longevity of the population's life. According to many reports, women live longer as compared to their male counterparts due to their lifestyles.

B. Input Indicators

The health of an i9ndividual is mostly determined by various factors which include; the level of expertise of the medical practitioners, the ratio of practitioners to the total population, the proximity to health facilities, the infrastructure of the nation, the lifestyle of individual like cigarette smoking which reduces the lifespan of an individual among other factors. This phenomenon can further be explained as the total resources committed by the state towards improving the sector. The examples of these indicators include the following:

1. Quality and accessibility of the health system

• Number of medical procedures successfully carried out;

• Medicine available to the patients;

• Savings directed towards the health sector;

• Proportion of a medical practitioner to the total population in both urban and rural areas;

• Number of medical facilities in a region;

•Up-to-date medical apparatus

• Queues at the hospitals

2. Advancement of medical knowledge

• Monies committed towards medical exploration

• Proportion of innovations from the sector

3. Public policy decisions affecting public health

• Resources directed towards improving infrastructure

• Laws on safe working environment.

4. Environmental determinants of health

• Sewage disposal

• Condition of safe air

5. Individual lifestyles

• Alcohol consumption

• Cigarette smoking;

• avoiding obesity;

• Avoiding stress[23].

2.6 Basic education and economic development

Scholars have reiterated that there exists an association between education and economic development. Most of the researches carried out have been comparing the level of education and economic development in various countries around the world. Many countries compare the educations levels with the development where the results have revealed a positive link exists between the two.

Countries with low levels of educations are associated with low technological progress which leads to low levels of economic growth and development as compared to countries with high literacy rates. This reveals a need for a country to invest in education especially in technical areas to increase its national output. Educated employees have the capability to increase output due to the skills they possess. It will further lead to new innovation in the workforce. This statement reveals that countries with highly educated citizens have a high

[23] Andrew sharp 2001: the development of indicators of human capital sustainability, at the annual meeting of the Canadian economic association. pp 9-11

rate of technological advancement. On the hand, countries with low levels of education are associated with low levels of production as well as high importation especially on technological products.

Secondly, low education levels prohibit a nation from incorporating with other states. Education differentials in various countries show the gap that exists in the world in technological and economic advancement. This notion contravenes with the earlier statement that education has a direct link to employment. Education therefore becomes a vital tool in uniting people around the world. A good example is how trade has between different countries has improved due to more educated population especially in this century where majority of population have high literacy levels. The studies also reveal that education is vital in citizen participation in national issues especially those pertaining to making of national laws. Many small countries lack economic autonomy because as the population reduces, the ratio of educated population also decreases[24].

Education is viewed as the only tool that can improve economic performance of less developed countries and move them form low income earning countries to a middle income earners through gaining of skills by its citizens. This will improve the national output as the trained population will train others hence improving the national output in less developed nations. This varies with the level the skill is being applied whether in simple or advanced state. That kind of training need to be as simple as possible for it to be transmitted to others with eased[25].

A society with educated population not only gains economically but also socially as more educated population is easy to adapt to any changes brought about by technological progress and other economic transformation. In the traditional settings the family where one hailed from was the vital factor to economic progression but that changed when education was introduced as an educated person has a higher probability of making it in life than an educated person. However there is a new wave of youth breaking away from the norm and

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[24] Amartya Sen, 'Radical Needs and Moderate Reforms", in Jean Dreze and Amertya Sen, eds, Indian Development: Selected Regional Perspectives (Delhi: Oxford University Press 1996), pp. 21-22.
[25] R.P. Dore, Education in Tokugawa Japan (London: The Athlone Press, 1984), p. 292.

emphasizing education doesn't determine how successful a person may become but it all depends on how smart an individual is.

There are many positive externalities associated with education like improved mortality rate among the population, reduced infant mortality, national output among other things due to more educated citizens[26].

However, as we've already seen in the above statements there are numerous benefits associated to education, many of the benefits are unquantifiable and therefore cannot be pinpointed to education as many studies have revealed[27]. There exist various factors which may lead to the unrealized results of education on development. Sometimes it becomes very difficult to know whether there exists an association linking the two phenomenon. There is not enough evidence that education increases national output or leads to development due to lack of data to support this. However many studies emphasize on the benefits education has to the society but it cannot pin it down to a specific sector.

[26]The World Bank, Primary Education in India (New Delhi: The Allied Publishers Limited, 1997), p. 39.
[27]Suzanne Pepper, Radicalism and Education Reform in 20th Century China: The Search for an Ideal Development Model (New York: Cambridge University Press, 1996), p. 5.

3. AN OVERVIEW OF SOUTH SUDAN

The state of south Sudan is the newest state in the world and in Africa after conducting referendum to break from the larger Sudan. The newest state has to overcome the challenges it has been dealing with over the last century which includes factors like political instability, ethnic conflicts, and high levels of poverty among other challenges. The country has no infrastructure to start with and therefore has to start from scratch in many fronts. The country is endowed with natural resources like oil discovery which could drive economic growth if efficiently utilized.

The country has recently been facing political instability which has hampered its development hence can't realize its potential. The nation is facing threats of being blacklisted from various unions including the African union which acts as a backbone of development in the continent.

Although the state is well endowed with natural resources especially oil reserves, it still lags behind in terms of economic growth and development due to conflict and mismanagement of the resources available. The country solely depends on oil which accounts for almost up to three quarter of its GDP but due to the recent conflicts in the country which makes it difficult for oil exploitation. The current oil available is diminishing in an alarming rate and is forecasted to fully diminish by the year 2030. The other main sectors are in livestock due to the traditional nomadic nature of the state and other agricultural activities which account for less than 20% of the total GDP.

The current situation in the country has dire consequences on the economy of the country as it has always been on decline. The situation is expected to worsen in the coming years as the situation is worsening. The situation is so dire such that the credit rating of the country is so low and not even the east African community can extend a helping hand. From the above statements it's clear that the country needs reforms.

The exports have reduced due to the declining prices of global prices of oil. The crude oil prices have been on decline since the year 2012 hampering the product. The macroeconomic variables of the country have not been spared either as the country experience high commodity prices as well as high rate of unemployment and balance of payments. The country is also among the ones with high fluctuations in the exchange rates as reported by the IMF. The domestic currency has depreciated by almost 80% from the time the country conducted its referendum in the year 2011. This has led to the factors such as poverty and hunger, high cost of living, low standard of living among its citizens among other factors. Most of the country's population age averages below 35 years meaning majority of its population is youth. The country had promising economic indicators at the time it became independent from the larger Sudan but the conditions started deteriorating when it began experiencing political instability.[28]

3.1 Economic Characteristics of South Sudan

3.1.1 Selected facts about the Macro-Economy

South Sudan economy is a fragile and underdeveloped one, as expected the macroeconomic management experiences of the country is limited. Since its independence the country had made massive efforts to push the wheel of development that allowed a short term robust of economic growth, but the existing political instabilities is threatening the sustainability of those efforts.

3.1.1.1 GDP growth rates

South Sudan has experienced uneven GDP growth during the last five years. Between 2011 and 2012, GDP growth receded by 14 percent, from SSP 28.505 (US $ 13.28 billion) to SSP 24.95 billion (US $ 9.2 billion).With South Sudan suspending oil production for 15 months because of its dispute with Sudan over transshipment fees, The suspension had a devastating impact on GDP, which declined by 48% in 2012. In 2013, there was a substantial recovery with the resumption of oil, GDP grew by 30% it was estimated at SSP 34 billion SSP ($ 14.94 billion). The following years showed a slowdown in GDP because of the conflict and oil reduction from (24.8 billion) $15.10 Billion in 2014, (24.4 billion) $12.49 billion in 2015 to (20.88 billion) $2.91billion in 2016[29]

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[28] World Bank's South Sudan overview, 2016
[29]http://www.theodora.com/wfbcurrent/south_sudan/south_sudan_economy.html

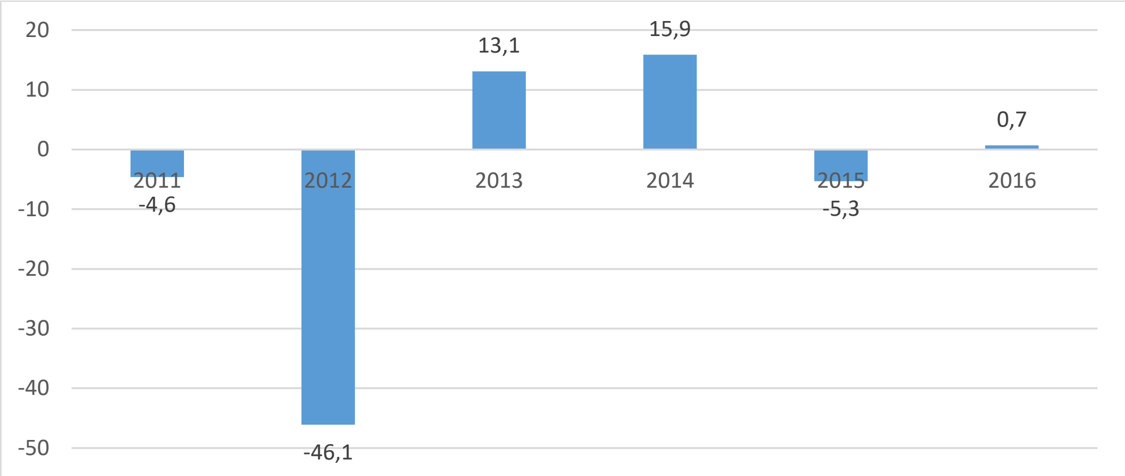

Chart 3.1.GDP growth rates from (2011-2016)

Crude oil contributes about three quarter of the country's GDP, most of the economic activities emanate from the sector either directly or indirectly. The sector also contributes directly or indirect to the other sectors of the economy by about 50 percent. Overreliance on the sector has resulted to high fluctuations of the country's GDP due to the frequent changes in global oil prices.

Many analysts have predicted drop in oil prices across the world in the future and this will worsen the current situation in the economy of the newly formed state. South Sudan oil will be nearly exhausted by the year 2012.

The country is currently making policies which will help in diversification to other sectors and reliance on the sector to avoid the catastrophe which may occur in the event the reserves will be exhausted. The sector which is focused on shifting to is the Agricultural sector which will not only diversify the economy but also bring food security to the country which is frequently struck by hunger.

3.1.1.2 GDP per capita growth rates

The country's GDP per capita reduced by 10 percent from the year 2011 to 2016. However, the statistics from IMF show that the country has a higher income per capita compared to others in the Eastern region. This however was highly affected by the political instability that rocked the country in the year 200 and it was surpassed by its neighbors especially

Kenya which in the same period gained some strides. In that year the country registered the lowest income per capita in the east African region.

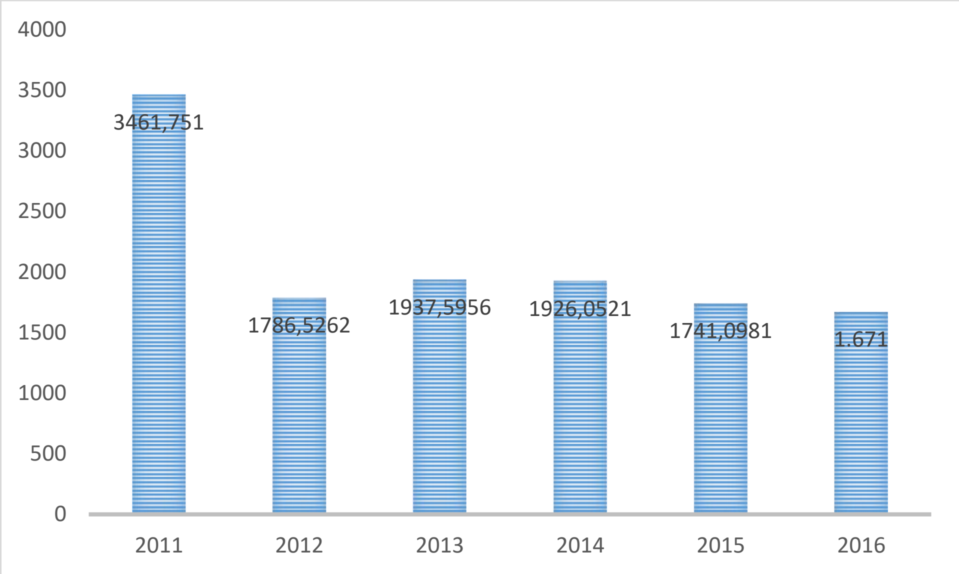

Chart 3.2. GDP per capita growth rates (2011-2016)

Source: World Bank

Oil production is highest in the country compared to its neighbors who have invested heavily on other sectors especially in the service industry. The situation is worsened by the recent ethnic conflicts which have hampered the microeconomic factors in the country such as employment, price levels, poverty eradication among others which has resulted in massive immigration of its citizens to the neighboring countries making the country a burden to its neighbors.

3.1.2 The agricultural sector

Despite the fact that the GDP of the country is dominated by the petroleum sector, agriculture is the second highest contributor of the country's GDP. The agricultural sector can become the backbone of the country's economy due to the factors such as the natural forests, livestock due to the nomadic culture of most of its population and vast land for farming and irrigation. These factors have really encouraged the country to embark on faming to curb the issue of hunger.

The importance of the sector cannot be over emphasized due to the role it plays in the economic growth of nation around the world and also as a tool of poverty eradication. Only 10 percent of the total population is not involved in cultivation while less than 30 percent do not own livestock. Food consumption amounts to 80 percent of the total expenditure of each household where the high proportion being spent by people in the rural areas. Since the referendum which made the country an independent nation from north Sudan, the country has embarked on agriculture which is viewed as the only long term solution to eradicate poverty and provide food security in the country.

The mandate of developing agriculture in the country has been hand over to the ministry of agriculture whose mandate is to improve and develop the agricultural sector in the country. The ministry however comes under various challenges from many of its population who carry out agricultural activities in a traditional manner and it becomes very difficult to change their mindset.

Estimate of cropped area in South Sudan

Nile River, which is the largest river in the African continent passes through the middle of the country making water available to those who want to do irrigation farming. This reveals that with proper management of the sector, it can surpass the oil sector which is the backbone of the country's economy[30].

[30]source: several assessments by FAO; Huliq" US convey on South Sudan's economic potential" February 2007; and; BBC" Sudan, one country or two? May 27 2011

Table 3.1. Land used in South Sudan (In hectares)

Category	Area	Share %
Cultivated	2,760,131	4.3
Trees	20,742,243	32.6
Shrubs	25,032,308	39.3
Herbaceous	14,522,385	22.8
Urban / industrial	34,188	0.1
Rock and soil	159,106	0.2
Water bodies	462,105	0.7
Total	63,712,466	100.0

Source: South Sudan: An infrastructure action plan

Despite the fact that about half of the total land can be cultivated, only the land which can be used for farming throughout the year accounts for less than 5 percent. The statement above is indicated on the figure above. The study results carried out by the World Bank reveal that only less than 2 percent of the total land is cultivatable throughout the year as the earlier results have also revealed. Many households prefer consumption of cereals hence their preference on the crop from most of the farmer with its cultivation accounting for 90 percent of the crops cultivated in the country.

Key challenges for the sector

The sector is faced with numerous challenges which include factors like farmers not conversant with the modern methods of farming and also the emergence of pesticides which are resistant to pests leading to lower yield from their farms and this has resulted to so much dissatisfaction from the farmers in the sector.

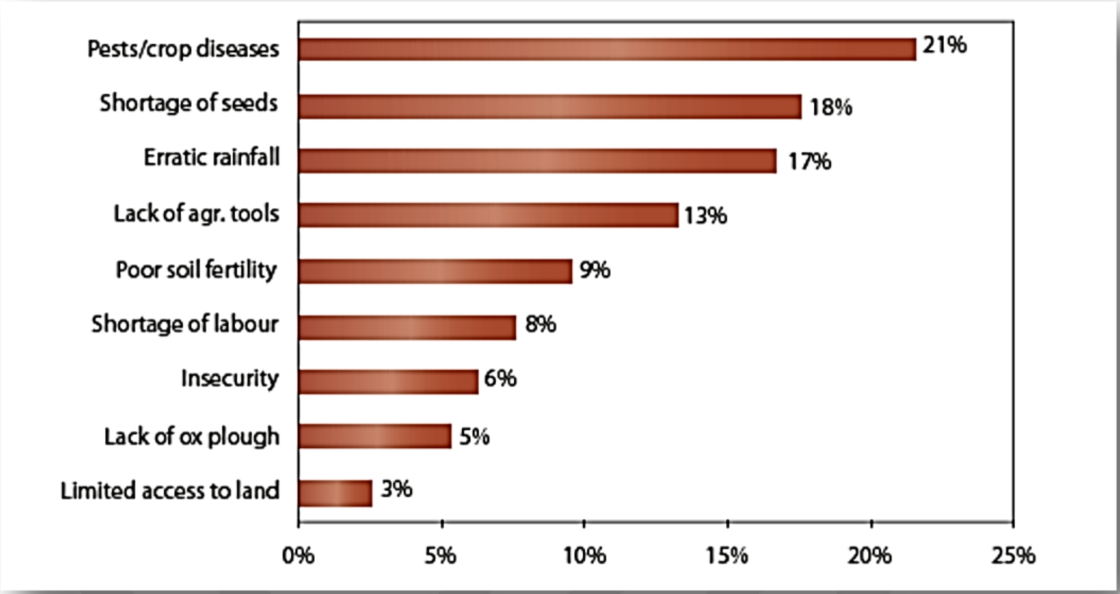

Chart 3.3. Constrains for crop cultivation in South Sudan

Source: WFP, FAO, MAF (2006)

3.1.3 Industrial sector

Industry and infrastructure in landlocked South Sudan are severely underdeveloped and poverty is widespread. Therefore South Sudan finds itself with relatively poor primary conditions for private sector development and a need to work out policies which will introduce entrepreneurial and ultimately technological liveliness in the region.

The country also has vast mineral deposits other than the oil exploration which contributes the highest percentage of majority of their GDP**.** The available data reveal that as at 2010, less than 300 businesses were registered in the country and about 60 percent were in the manufacturing industry. Those statistics indicate that the country is lagging as the country didn't have a single registered business in the agricultural sector. There have been numerous ore discoveries in the country though it has not been established yet whether they are commercial or not. There have been recent discoveries of Gold in South Sudan near its borders to Ethiopia.

Diamonds have also been discovered on the northern side of the country as well as deposit of limestone on the central region of the country.

As compared to other countries in the region, its manufacturing sector presents a meager 3 percent of the total number as to those of its neighbors. This reveals low production in the state hence the high volume of imports from its neighbors Kenya and Ethiopia. There are few businesses doing well in the country especially those producing alcohol hence need to encourage investment in the country[31].

3.1.4 Labor market and employment

Aggregate labor market indicators accentuate a number of obstacles and challenges facing the labor market in South Sudan. As shown down below in Table (2), South Sudan portrayed very high rates of child labor; high rates of youth unemployment; and low levels of education participation, even for the 10-14 and 15-24 years age associates. Non-wage sector is found to host a large share of active population, and agriculture sector to be dominated with low-productivity employment**.**

[31]South Sudan: A Study on Competitiveness and Cross Border Trade with Neighboring Countries. African Development Bank 2013, pp 42.

Table 3.2. Labor market population participation and age range

Age range		Population percentage		Percentage of active population	
	Labor Market participation	Education participation	Employment rate	Unemployment rate	Relaxed unemployment rate
Children (10-14 yrs.)	58.5	37.3	78.1	-	-
Youth (15-25 yrs.)	64.6	27.2	81.5	18.5	29.5
Adults (25-64 yrs.)	81.4	4.2	90.2	9.8	16.5
Working age (15-64yrs)	75.0	12.9	87.4	12.6	20.9

Notes: (a) The relaxed unemployment is defined as the number of the unemployed in the population and the discouraged employees which is conveyed as a percentage. Discouraged employees on the other hand are those who are unemployed but are not actively looking for jobs due to factors such as corrupt system in the job recruitment process.

Source: UCW calculations based on Sudan Fifth Population and Housing Census 2008, long form questionnaire.

75 percent of the total populations who have reached the majority age are active in the labor force. The figure above reveals that the total number of unemployed population in the country accounts for almost 15 percent. While the unemployed rate in the country is among the lowest in the sub-Saharan Africa, very few employees continue with their studies or attend seminars and training accounting for less than ten percent. Majority of the inactive population is comprised of the schooling workers who contribute high percentage in the discouraged employees accounting for 30 percent. The remaining 70 percent of the inactive employees are neither schooling nor seeking jobs. The high percentage of the inactive employees indicates that unemployment is a challenge facing the newly formed state in Africa and in the world.[32].

[32]L. Guarcello, S. Lyon, F. C. Rosati: Labor market in South Sudan, Understanding Children's Work (UCW) Programme, 2011, pp 7.

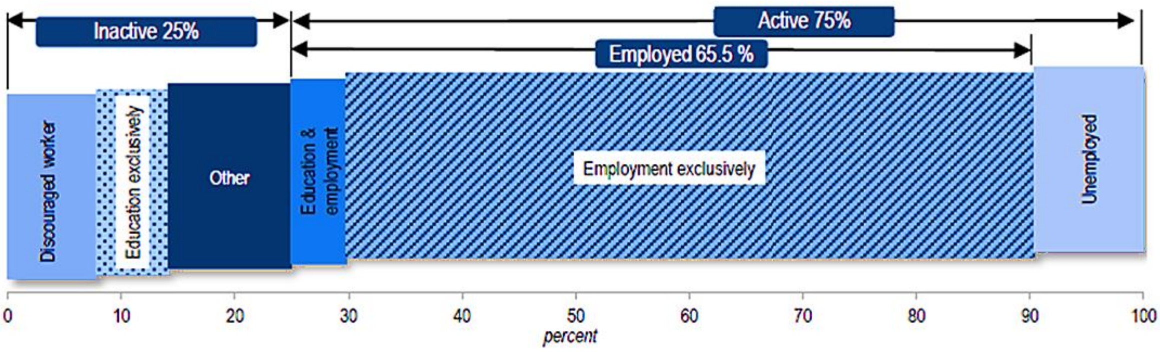

Chart 3.4. **Decomposition of working-aged (15-64 years) population by activity status**

Source: UCW calculations based on Sudan Fifth Population and Housing Census 2008, long form questionnaire.

Employment is categorized by dominance of low output; poorly paying jobs are usually at the agricultural sector as revealed in the figure above. Out of the total population of the employed population, 80 % are not well remunerated due various factors such especially in the agricultural sector where farm produce are not constant. Despite the challenges of poor remuneration in the agricultural sector, about 70 percent of jobs come from the sector. Those doing subsistence farming account for three quarter of the total population working in the sector hence the high number of low remuneration in the sector. The other factor is, only small percentage of the population prefers white-collar jobs accounting for less than 20 percent of the employed population. These statistics are usually influenced by the fact that majority of the population live in the rural areas representing over 80 percent of the total population while those living in urban area account for less than 10 percent. As the figure above reveals, employment and remuneration contrasts depending on the sector with the agriculture sector being the worst paying.

Table 3.3. Sector of employment, percentage of employed persons aged 15-64 years, by residence

Sector of employment	Total	Residence Urban	Rural
Manufacturing	1.0	1.5	0.8
Construction	1.2	2.2	0.8
Commerce	7.2	13.0	5.4
Service	12.1	24.9	7.9
HH production	15.0	12.5	15.9
Agriculture	62.9	44.5	68.9
Other	0.6	1.4	0.4
Total	100.0	100.0	100.0

Notes: (a) household production represents: goods and services produced from the private activities; (b) other includes: the sectors such as extraction of iron ores

Source: UCW calculations based on Sudan Fifth Population and Housing Census 2008, long form questionnaire.

Table 3.4. Status in employment, percentage of employed persons aged 15-64 years, by residence

Status in employment	Total	Residence	
		Rural	Urban
Paid employee	13.1	28.8	7.9
Employer	2.5	3.7	2.2
Own account worker	36.5	34.9	37.1
Unpaid family worker	43.1	29.8	47.4
Unpaid working for others	4.8	2.8	5.5
Total	100.0	100.0	100.0

Source: UCW calculations based on Sudan Fifth Population and Housing Census 2008, long form questionnaire.

About 15 percent of the population are unemployed but this figure is escalated by the high number of individuals who are inactive in job seeking hence forming a group known as discouraged workers**.** This rate rises due to consideration of the discouraged workers as shown in the figure above. Majority of this group of discouraged workers don’t know how to apply and attend interviews hence remaining unemployed for longer period. Majority of the discouraged employees come from the internally displaced people who return the situation calm down. Many reports have argued that majority of the returning immigrants are the ones increasing the rate of unemployment in the country as majority do not possess the necessary kills to enter the job market. Unemployment also differs in rural and urban areas as the urban areas have higher rates of unemployment to the rural areas. The issues of disparities in unemployment based on gender are insignificant.

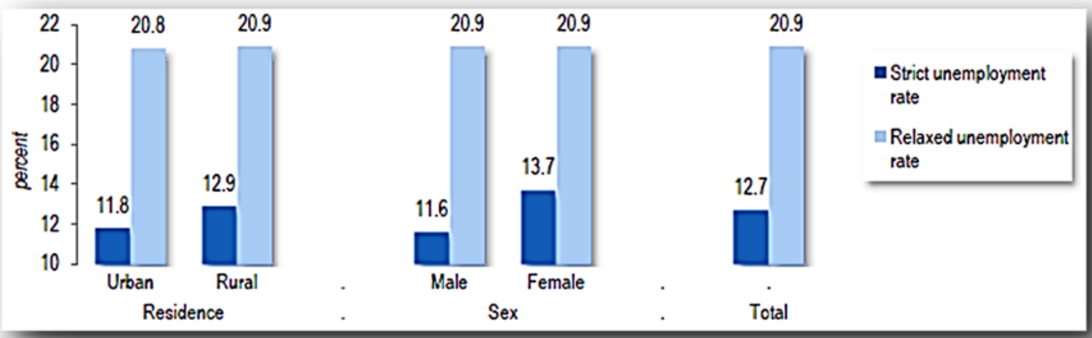

Chart 3.5. Unemployment rate, strict (a) and relaxed (b) definitions, by residence and sex

Notes: (a) Strict unemployment rate is the total population of individuals actively seeking employment which is expressed as a ratio of the total number of individuals who have attained majority age. (b) The relaxed unemployment is the combination of both the discouraged and strict employees unemployed also expressed as a ratio to total unemployment[33].

Source: UCW calculations based on Sudan Fifth Population and Housing Census 2008, long form questionnaire

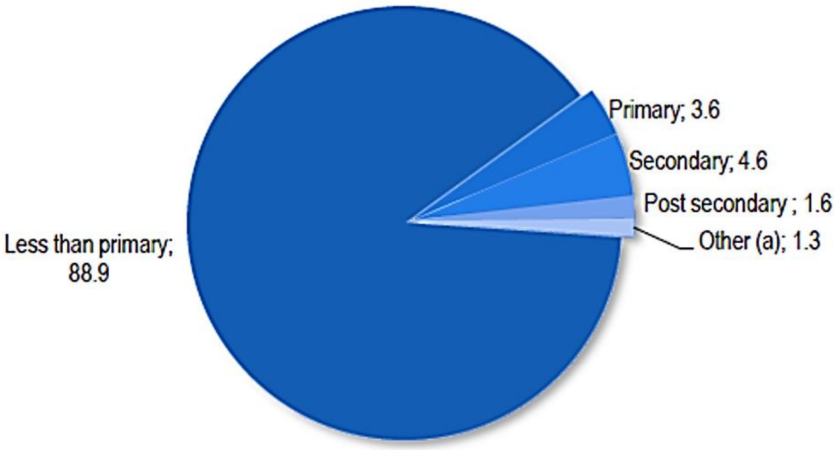

Chart 3.6. Education attainment, active population aged 15-64 years, (a)

Notes: (a) The category other includes: Junior school, Religious school. Source: UCW calculations based on Sudan Fifth Population and Housing Census 2008, long form questionnaire.

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[33] L. Guarcello, S. Lyon, F. C. Rosati: Labor market in South Sudan, Working Paper, December 2011, pp 13

The human capital in this state is low. This implies the country is still lagging behind in terms of skills among the young employees who graduate without the necessary skills to succeed in the job market. About 90 percent of the population is post-primary graduates while only 10 percent have college qualifications. More literate population is concentrated at the urban areas as compared to the rural areas where many people live nomadic lives hence making it difficult for them to get education. The literacy rats also vary with regions with the central region producing many educated people as shown in the figure above.

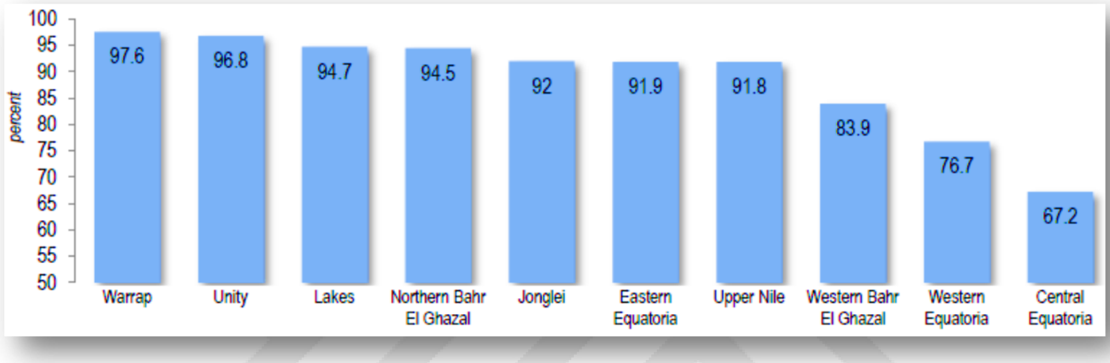

Chart 3.7. Percentage of active population with less than primary education, by state.

Source: UCW calculations based on Sudan Fifth Population and Housing Census 2008, long form questionnaire.

The more educated a person is, the more the income he or she earns and also more likely to get a formal job with good remuneration. The salaries increase as one becomes more and more educated. College graduates are the highest earners followed by high school graduates and primary level education and last the population with no education who are the lowest earners.

3.2 South Sudan Education System

After the country became independent in the year 2010, it continued with the education system of the Republic of Sudan. The system has been practiced for over two decades and it's known as the 1990. The official language of the leaning institution as well as the country itself there is a challenge of implementing English as the official language as it's an Arabic speaking nation and therefore there is an acute shortage of English teachers. The 2012 report revealed that over 70 percent of population lack reading and writing skills. It further revealed that literacy rate is higher among the male population than the female. The UNICEF report shows that school dropout is higher among the female students who drop out of school to get married to older men. The report further reveals that only 3 percent of female students finish their o-level education. The current status of education in south Sudan is wanting and therefore needs reforms.

3.2.1 Primary education

The primary education system was introduced to the republic of Sudan with an estimated number of institution totaling 800**.** Many of these institutions were destroyed during the political instability that rocked the country in the early 80's.This really hampered the learning in the country as the teachers were among the people who fled the country to seek asylum in the neighboring countries. In an attempt to restore the status of the learning in the country, the national government made education for all pupils in the primary schools.

3.2.2 Secondary education

This is the continuation from the primary level. Students are introduced to science subjects. Their average age ranges between 13 to 20 years, however many do not accomplish their studies due to various reasons like early marriages among the girls and absenteeism among the boys as many are attain the age where they can now become morals.

3.2.3 Post-secondary education

From the secondary education one moves to the college or a university depending on their qualification on the 12^{th} grade. There are few institutions which can accommodate all the students graduating from secondary schools hence many do not progress with schooling after the 12^{th} grade. Like many African states, many graduates aim to only attain a certificate and not gain the necessary skills needed for the job market and the outside world. There is excess demand for technical graduates who are needed to foster the country's infrastructure and boost economic growth in various sectors of the economy. This is also contributed by the fact that many institutions do not offer technical education.

3.3 Special focus on primary education

There has been a shift in the mentality of the south Sudanese mentality from their traditional and nomadic culture and they have putting more effort in the education of their children hence increased enrolment in these institutions especially after the national government promise free education to all students in primary schools. Many of the school drop cases are in the rural areas as compared to the urban areas due to the country nomadic ways where they move from place to place in search for pastures for their livestock hence increasing the number of school drop outs in the rural areas. This has posed a serious threat to the economy of the country.

Majority of primary school attendants are due to the government subsidies in the sector as revealed in the figure below[34]:

- National Government provides free primary education to all students.
- Some private schools headed by private entities are also subsidized by the national government.
- There are those schools privately funded by individuals and these institutions only attend children from good backgrounds.
- There are also those headed and funded by communities such as churches.
- There are also international Non-governmental organizations without the national government help.

[34] Education in the republic government of South Sudan; status and challenges for a new system, Africa Human development Series, World Bank 2012, Pp 30

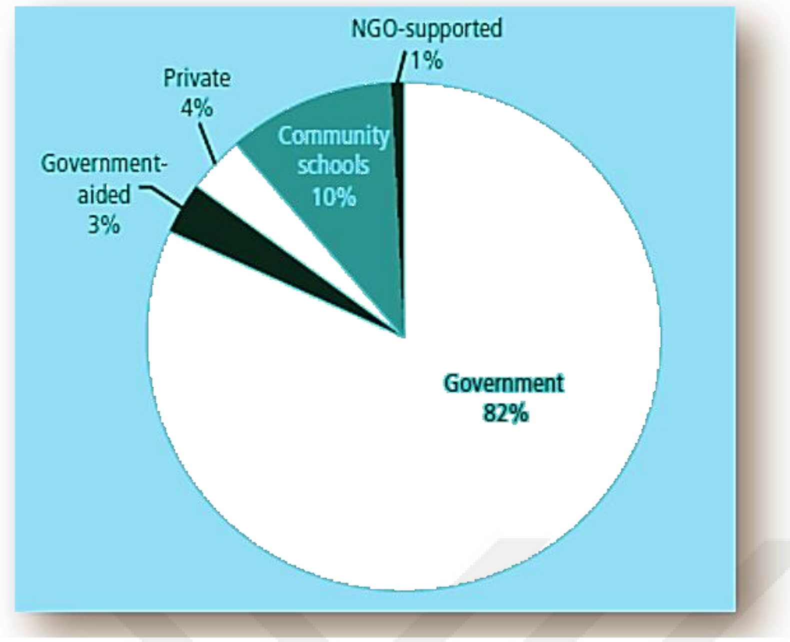

Chart 3.8. Primary Schools by Ownership and Funding, 2009

Source: Analysis of EMIS 2009.

3.3.1 Primary completion and dropouts

The situation in the country is that, 73 percent of the adult population is illiterate while that of the children aged below 18 years is illiterate. Dropouts is rampant such that out of the total number of enrolled students in the primary schools, only less than 15 percent complete the primary level with the highest number of school dropouts being those of girls.

The figure below shows the trends of school dropouts since grade one till completion in primary level. Very few institutions in south Sudan offer the full curriculum from the first grade to the last.

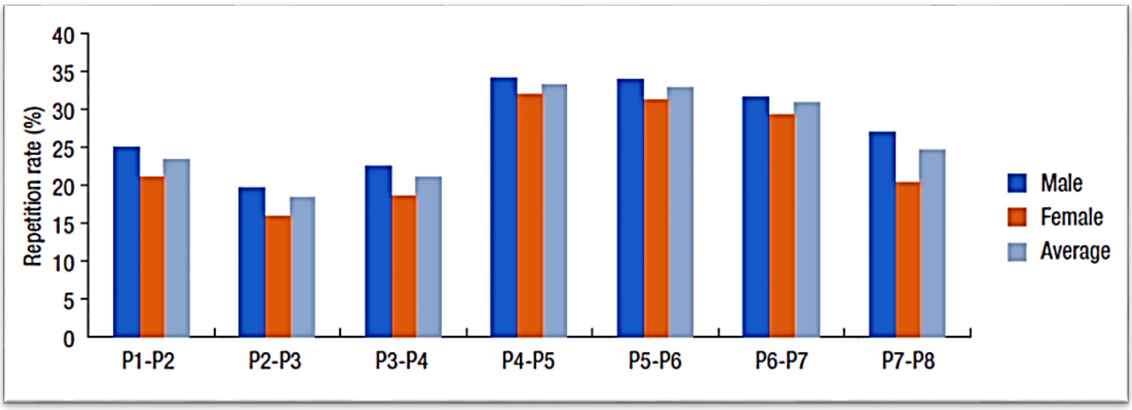

Chart 3.9. Primary School Dropout Rate by Grade and Gender, 2010–11

Source: Education Management and Information System (EMIS) 2011

Many reports have been published as to why many pupils are dropping out of school. The questionnaires are structured in a way to capture all important information regarding the matter and directed to the stakeholders like the children parents and guardians (Sudan National Bureau of Statistics 2010). The results revealed different factors as the reasons for school dropouts among the rural children is different from the urban children. The rural children cited proximity to schools as the reason for their dropout while the urban population cited the cost of education as the main reason for children dropout.

The cost to education is high on high school education as the government has subsidized primary education in the country. Many parents cited that they can't afford to take their children to pre-school education and results on the number of children attending pre-school education is severely low with less than 50,000 children attending pre-primary school in the whole nation. There has been an influx in the learning institutions especially with more and more refugees who fled home due to civil war which rocked the country for nearly two decades returning home after peace was restored in the country. The already few learning institutions have to accommodate the high number of students making the situation even worse.

3.3.2 Primary enrollment disparities across State

The enrollment in schools has been steadily increasing over the last decade. The enrolments are higher in the primary schools as the figures almost tripled from the year 2000 to the year

2010 rising from 400,000 pupils in the year 2000 to 2 million pupils in the year 2010. The data above reveals a shift in the importance of education in the country moving from traditional nomadic ways. The secondary school enrollment is not available but reports show that the figures have doubled since early 2000.

Data from the bureau of statistics indicate a varying data on the enrollment in different regions across the country. The report doesn't come as a surprise as development in the country varies with different states with some being more developed than others. From the figure below shows that the western and central regions are more developed accounting for a total of over 80 percent of the total school enrolment in all levels. The Eastern region has the fewest learning institutions as well as the lowest number of school enrollment. There have been efforts from the national government to curb the disparities but the funds are limited hence the situation persists. The eastern region is inhabited by marginalized communities and hence lagging behind in development issues.

Gender inequalities in school enrollment vary with region as well. The central and Western regions have almost an equal number of both boys and girls enrollment. The Eastern region has huge disparity in school enrollment as more girls are enrolled in the learning institutions compared to the girls as the communities inhabiting these region still practice their traditional culture where boys become nomads at early ages and girls are married early by older men. The government is coming up with policies to address this situation.

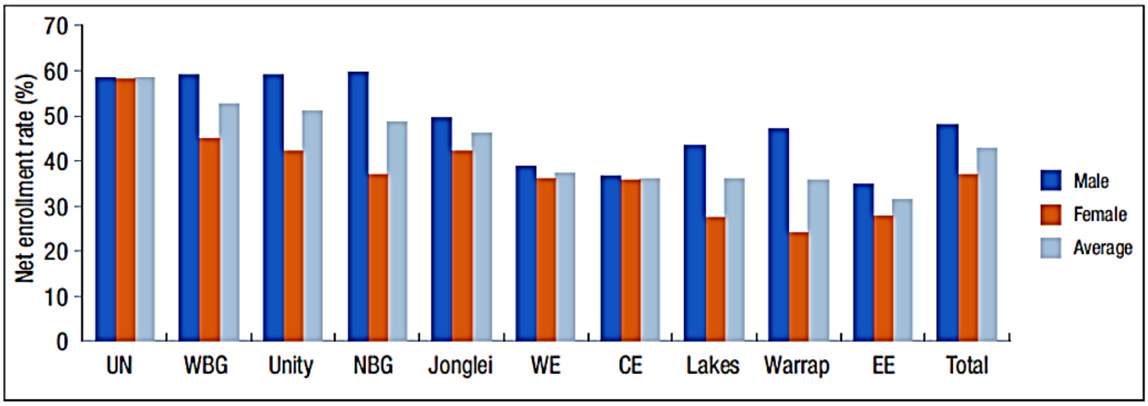

Chart 3.10. Primary School Net Enrollment Rate (NER) by State and Gender, 2011

Source: EMIS 2011

Disparities in school enrollment are high depending on income of the household with the households with higher income with higher probability of taking their children to school as compared to the poor households who have low probability of taking their children to school (World Bank 2012).

The low levels of enrollment are due to the country sending their children to the neighboring states especially Kenya and Uganda due to the fact that their curriculums are similar to that of South Sudan. The parents who are sending their children to study outside the country are the wealthy households and this has deprived the country of weak system as most of these students don't return to the country after completing their education. However the country needs to improve on many fronts not only in education in order to retain their bright students and avoid brain drain situation.

3.3.3 Primary school's teachers and learning infrastructure

South Sudan's "learning infrastructure" still has a long way to go. Classrooms are overcrowded and some children even don't have access to permeant classrooms. In addition there is an inadequate provision of textbooks, where students have to share books in some occasions. On the other hand, teachers don't have the required training to effectively teach. Some of the teachers have secondary certificates and are teaching in secondary schools with no additional training. This has contributed to fact that many class eight children cannot pass a class three exams. The teacher to student ratio is very ration but the situation has improved over the last decade with over 30,000 new staff being employed but still the ratio remains low as the enrollment is increasing at a very high rate[35].

[35] South Sudan: accelerating progress to 2015, a report series of the UN special envoy for global education, April 2013, Pp 9.

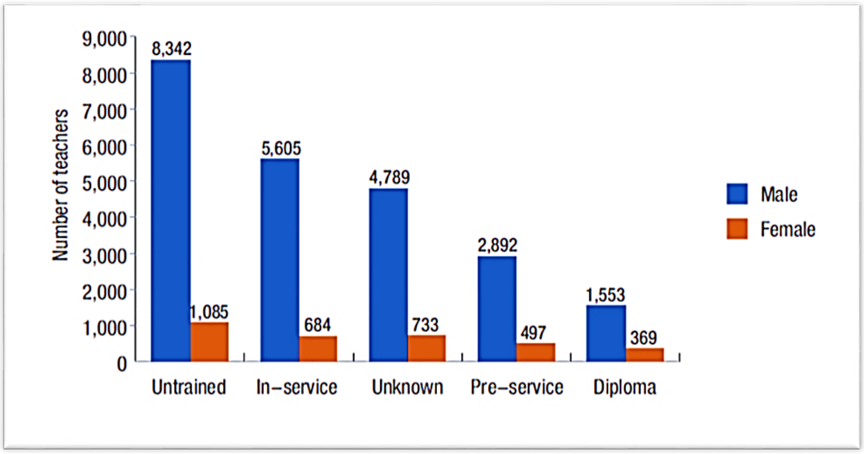

Chart 3.11. Number of Primary School Teachers by Professional Qualification and Gender, 2011

Source: EMIS 2011

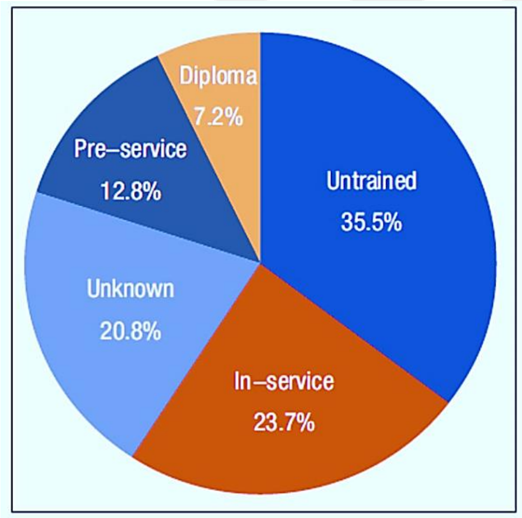

Chart 3.12. Percentage of Primary School Teachers by Profession, 2011

Source: EMIS 2011

Gender inequalities exist in this teaching profession as the profession is dominated by male gender. In 2010, the percentage of female teachers in the primary schools stood at 15% and it slightly declined in the year 2011 to 13 percent. The fact that there is gender inequality in the teaching profession has affected the number of girl enrollment to secondary schools in the region.

3.3.4 Pupil/teacher ratio

Teacher/student ratio has been steadily increasing over time as it currently stands at 52:1—which is the highest in the East African community and also one of the highest in sub-Saharan Africa. The ratio varies with the states with the Western and central states having the better teacher/student ratios which stands at 55:1 and 100:1 respectively. The eastern states have the lowest ratios with 151:1. Shortage of qualified teachers has also hampered the learning process in the country as most of the teachers don't have the qualifications to teach.

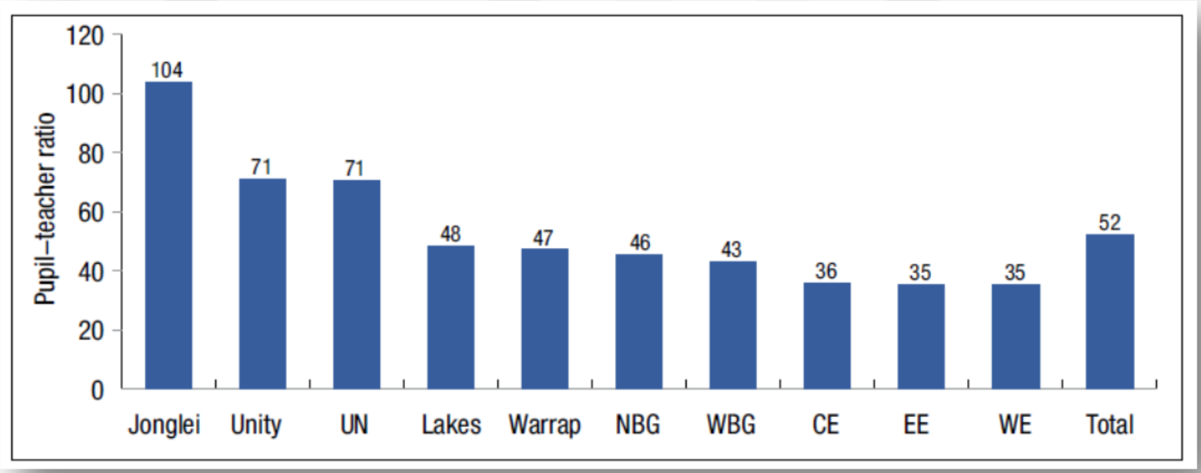

Chart 3.13. Primary School Pupil-Teacher Ratio (PTR) by State, 2011

Source: EMIS 2011

The challenge facing the country is that of the qualified teachers. Data show that about 30 percent of the teachers have primary qualification, a fifth of the number of teachers possess a high school qualification while the rest is unknown. The country has literate that the only way to improve this situation is through seminars and training for the teachers. The data also reveal that 80 percent of the teachers in high school are not professionals in this profession. Teacher qualification varies with state with the eastern state having low number of the qualified teachers.

3.3.5 Public spending on primary education

After the referendum was held and the country became an independent state, the government invested a lot of resources in the sector reaching an all-time high but the resources directed towards the sector declined tremendously after the newly formed state started experiencing political instability. The resources are also constrained due to the fact there has been an increasing number of school enrollment over the last decade. The sector is allocated about 7 percent of the total national budget in every financial year but the proportion has remained constant over the years making operations in the sector difficult. The proportion in which the budget is allocated to various levels of education also varies with about 60 percent going to primary education and the remainder to secondary, colleges and tertiary institutions[36]. (World Bank)

The country has embarked on promoting education as they view it as the only tool to bring peace and reconciliation to the nation that has been involved in the war for over two decades. Education will also interact with other students from various ethnic communities across the nation which will bring to an end these ethnic conflicts experienced in the newest state in the world[37].https://www.unicef.org/southsudan/education_Education_issue.html

3.4 South Sudan health system

Health services have been decentralized in the state in an attempt to allow access to all the citizens in the country which is a constitutional right to all its citizens. The figure below shows the country's health sector structure:

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[36]Education in the Republic of South Sudan, status and challenges for a new system, Africa Human Development Series. World Bank 2012, Pp 6

[37]https://www.unicef.org/southsudan/education_Education_issue.html

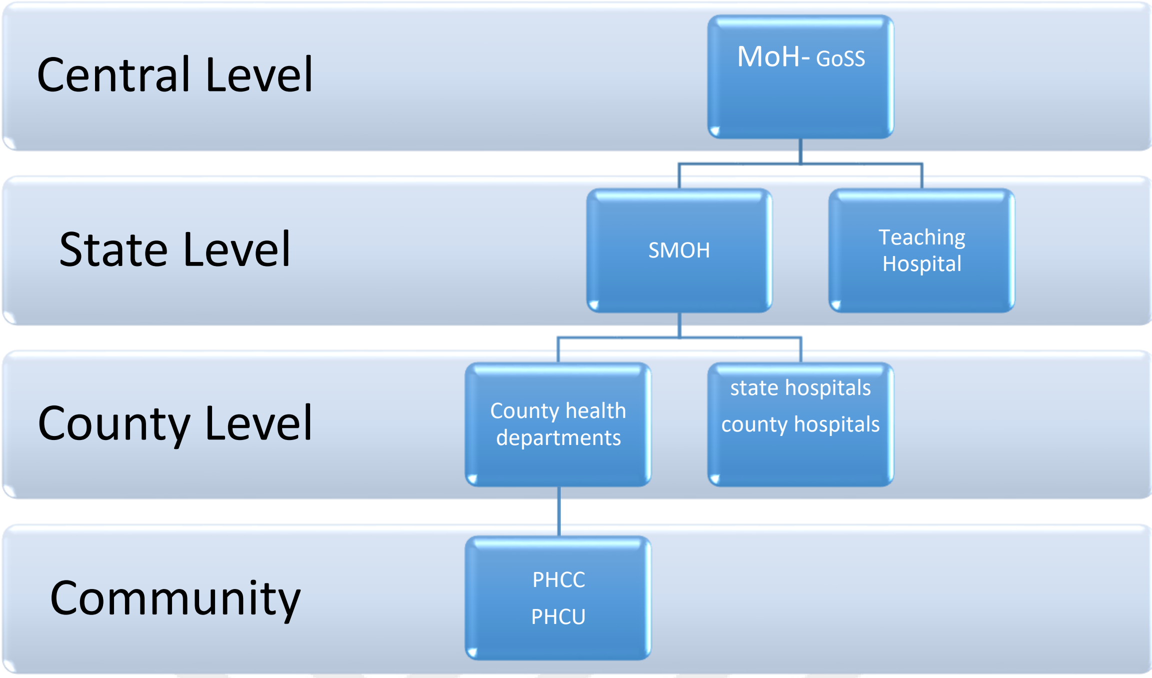


Chart 3.14. Decentralized Management Structure of the ministry of health (MoH)

The figure reveals the various services the Health docket ministry provides. The state is mandated to provide services such as the delivery of health care services to all the citizens in all levels from the village level. The community is located at the village level and manned by community health. The primary level includes Primary Health Care Units and Primary Health Care Centers which provide Basic Package of Health Services (BPHS). The BPHS covers preventive, curative, health promotion and managerial activities. The BPHS is finance by government and contribution from MDTF and various NGO. The health services are meant to be free and accessible to the majority of the population at the primary and secondary levels.

3.5 Health indicators

The health sector in the newest state in the world actually ranks amongst the worst in the worst. This situation is worsened by the fact that about half of the total population live below the poverty line. Various factors like the infant mortality rate ranks among the first in the sub-Saharan Africa with many children and mothers as well dying during the birth. According to a report compiled by the Sudan bureau of statistics, three out of every five children born in the country live. Life expectancy in the country is also low with female having a life expectancy of 60 years and male having life expectancy of about 55 years.

Immature deaths are common in the country with 30 percent of children dying before attaining the age of 7 years. The main causes of these deaths are mainly attributed to: Pneumonia, diarrhea, malaria, and malnutrition. The country has the worst record in malnutrition around the world with the UNICEF report revealing that half of the children in the country below the age of 10 are severely affected with the numbers increasing year after year due to political instability the country is facing. The number of children accessing medical facilities is declined from 3 percent in the year 2005 to 2 percent in the year 2015 according to the UNICEF report. The antennal coverage is very low and has been increasing over time hence the reason for high child deaths in the country. The situation has been worsened by the fact that there are limited number of medical practitioners in the country and poor medical facilities as well.

The medical practitioners in the country is so low such that the ratio of doctor to patient is 1:350, this is very low and below the recommended number by the WHO. Due to the deep rooted cultural practices in the country, about 80 percent of mothers delivering in the country are attendant by the midwives[38].

The poverty levels are so high in the country as bout half of the total population lives below the poverty line hence they cannot afford to cater for basic needs like health hence high mortality rates in the country. The country lags behind both in the East African community and in the sub-Saharan Africa as revealed in the figure above.

[38]NgathoMugo, Anthony B. Zwi, Jessica R. Botfield, and Caitlyn Steiner. Maternal and Child Health in South Sudan: Priorities for the Post-2015 Agenda .SAGE Open April-June 2015, pp8

Table 3.5. Indicators Health Status Southern Sudan; compared with average of the region Middle East and North Africa (MENA):

Indicator	South Sudan	Regional average level	Indicator Key
Maternal Mortality Rate	2,045	210	Deaths per 100,000 live births
Infant Mortality Rate	102	33	Deaths per 1000 live births
U5 Mortality Rate	135	43	Deaths per 1000 live births
Total Fertility Rate	6.7	2.9	Births per women
First Antennal visit	48%	78%	Visit during pregnancy
Institutional delivery	13.6*	65	Deliveries attended at HFs
Skilled Birth Attendance	10%	76	All deliveries attended by skilled HRH
Contraceptive Prevalence	<3%	56	Use of contraceptives among CBA women
DTP3 Coverage (routine)	71 (routine)	89	% of children vaccinated
Access to health care (%)	0.2(<25%)	NA	Visit per person/year

Source: SSHHS, 2006 and World Children's Status report UNICEF 2008. * Institutional deliveries conducted at HFs also by non-professional staff

4. METHODOLOGY

To reach our purpose, which investigates human capital formation through investment in primary education and its effect on economic development. For the lack of sufficient data and the short time in which South Sudan gained its independence:

- I will present previous results from studies done in developing countries and base their experiences on the situation of South Sudan due to the similarities between them. And relate it to the actual reality in the country.
- Since the whole research is based on human capital theory I will test the correlation between education and health (being the main component of the theory) and economic development. In providing a classification I will use (SPSS)

In particular, I have selected relative indicators for each topic, as follows:

1. Economic development
 - GDP per capita, PPP ($)
 - GDP growth (annual %)
2. Health
 - Life expectancy at birth, total (years)
3. Education
 - Primary enrollment rate, total (% of relevant age group)
 - Pupil-teacher ratio, primary.

Data refer to the most recent period of five years for which I can find available data, specifically, the considered period runs from 2011 to 2016. In the analysis, we use the average value of each indicator over the considered period for each indicator.

4.1 Empirical evidence in support of primary education positive effect on economic development of developing countries.

Psacharopoulos and Patrinos (see Table A1) presented an updated review on the returns of primary education in developing countries. The study shows a decline in rates of return with each level of education and development. Sub-Saharan Africa and Latin American and Caribbean regions exhibited the largest rates of return to primary education. The study conclude that the latest findings supports and validates previous estimates and the belief that low-income countries has the highest rates of return from primary education, and argue that priority and attention should be given primary education in education investments.

Table 3.6. Rates of Return to Education by Level and Region

Region	Social			Privet		
	primary	Secondary	Higher	Primary	Secondary	Higher
Asia*	16.2	11.1	11.0	20.0	15.8	18.2
Europe/ Middle East/ North Africa	15.6	9.7	9.9	13.8	13.6	18.8
Latin America/ Caribbean	17.4	12.9	12.3	26.6	17.0	19.5
OECD	8.5	9.4	8.5	13.4	11.3	11.6
Sub-Saharan Africa	25.4	18.4	11.3	37.6	24.6	27.8
World	18.9	13.1	10.8	26.6	17.0	19.0

Source: Table A1.
*Non-OECD.

Table 3.7. Returns to investment in education by level, latest year, averages by per-capita income group (%)

Per-capita income group	Mean per capita (US$)	Social			Privet		
		Primary	Secondary	Higher	Primary	Secondary	Higher
High income ($9266 or more)	22,530	13.4	10.3	9.5	25.6	12.2	12.4
Low income ($755 or less)	363	21.3	15.7	11.2	11.2	19.9	26.0
Middle income (to $9265)	2996	18.8	12.9	11.3	11.3	18.0	19.3
World	7669	18.9	13.1	10.8	10.8	17.0	19.0

Source: Table A1.

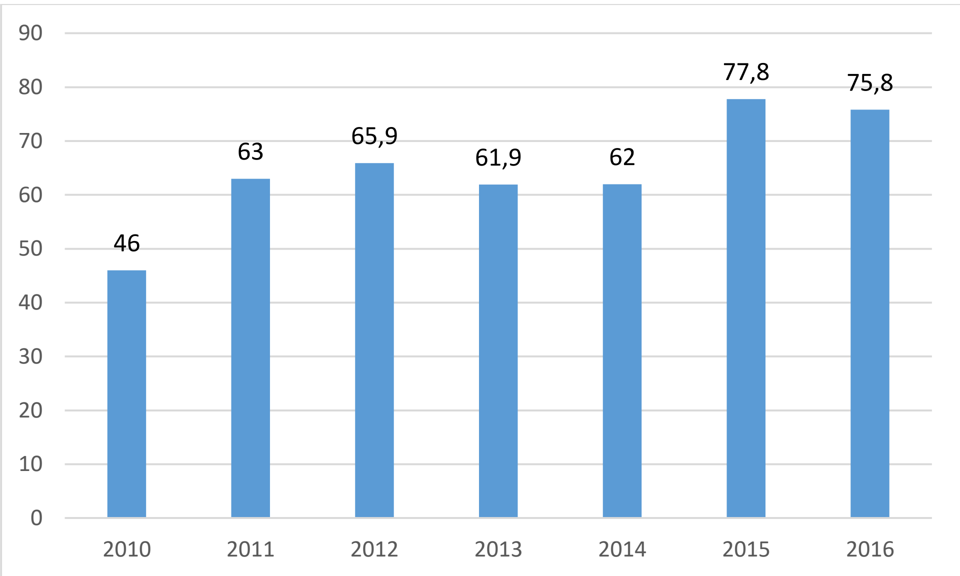
4.1.1 Primary education and development, reality and achievements.

Despite increases in school enrolment over the past few years, South Sudan's education indicators remain among the worst in the world. More than one million to reach our purpose, which investigates human capital formation through investment in primary education and its effect on economic development. But before exploring the causes and effects of the country's expenditure on primary education for general development, a little examination is in order to define primary education's contribution to development.

The demand for basic education is high in South Sudan, since illiteracy gives the population a sense of inferiority.

Despite been labeled as the worst literacy rate in the world, the country has been showing positive growth in the enrollment rate since its independence. With support of international organizations, the country recorded one of the world's fastest reconstruction programs a study reports. Between (2006 –2009) primary school enrollment more than doubled from 700, 000 to 1.6 million. Thus the number more than doubled in 4 years. This substantial growth in schooling places Southern Sudan in a small group of post-conflict countries. For example, in Mozambique, after the 25-year civil conflict ended in 1997, enrollment expanded from 1.4 million in 1999 to 4.2 million in 2008, tripling in 9 years. In Sierra Leone, where civil war ended in 2001, enrollment expanded from 554,000 in 2001 to 1.3 million in 2007, more than doubling in 6 years. Post-conflict enrollment growth is not always rapid: in Liberia, the number of pupils has remained fairly constant since its civil conflict ended

the following years after the seperation continued to show steady increse in the demand for education (fig.1), but even with the flow of international donations the educational system can not keep up with the demand.



Note: primary enrollment rate in the last 6 years has showed a steady increase, but the country's education indicators remains among the worst in the world (UNICEF)

Chart 3.15. **Gross enrollment rate (2010-2016)**

Basic school has positive effect on the development of villages and rural communities.

There is no denying of the magnitude to which literacy enable farmers to increase their production and to improve their living conditions in rural areas. A project to train farmers in the use of technology and fertilizers in farming is more likely to be received positively by those who have attended basic schools. Thus productivity is highly to increase in rural communities if, after basic education, further agricultural training is introduced and undertaken by the locals.

Programs introduced to strengthen basic education in rural areas in South Sudan, such as Community Girl Schools (CGS) provides quality basic education for girls aged 8-12 in villages that have no schools. The program covers the lower cycle of primary education in three years with girls enrolling in primary 5 in nearby primary schools. Although priority is given to girls, boys can make up 30% of the classes. These initiatives has produced a youthful and a more gender diverse but low capacity labor force. With the current low productivity and investment levels, the greatest potential for initial new growth is likely to be from the small-scale private, predominantly family, agriculture and livestock sectors. However, much rural sector activity is currently focused on low input – low output subsistence agriculture instead of production for markets.

Basic schooling based on local conditions may prevent rural-urban migrations

Rural- Urban migration mostly inspired by employment possibilities in big cities. Since 88.9%.the labor market of the country is majorly dominated by less than primary education holders (Housing Census 2008), a basic education individual is likely to have better chances in the urban labor market than the former. Therefore a primary school designed to mold the local conditions of certain areas, for instance an agricultural oriented educational system, can benefit local communities in South Sudan and reduces migration to urban cities. In addition, primary education holder’s chance of making greater income is reduced due to foreign employee’s presence, especially in big cities. Where most effective labor force are hired from neighboring countries because of the low level of education in the country. Therefore, Curriculums designed to fit rural mold will discourage migration to urban areas, in addition this will promote basic education completion and interest in pursuing higher levels of education.

4.1.2 Health and development, reality and achievement.

South Sudan begun to invest particularly in health and primary education in the years following the 2005 Comprehensive Peace Agreement, to boast economic growth. However, resent conflict and political tensions have negatively impacted all health system components. In the health sector, initiatives such as The Health Sector Development Plan (HSDP) were introduced to help transform the health care system in the country. However, majority of the population still have very poor access to health care. Since health has direct effect on the productivity of a worker, this justifies the urgent need to push more towards investment in this sector. For health:

Complements other human capital inputs like education and training.

This means that the gains from education and training are greater to a healthy individual, furthermore the healthier the worker, the greater the investment in education and training.

Increases the lifespan of a worker.

A longer lifespan increases the need to generate retirement income, a shorter one is not likely to. Evidence from developed countries points out that saving for retirement generates investment funds. Therefore higher life expectancy rates in developing countries can lead to investment boom.

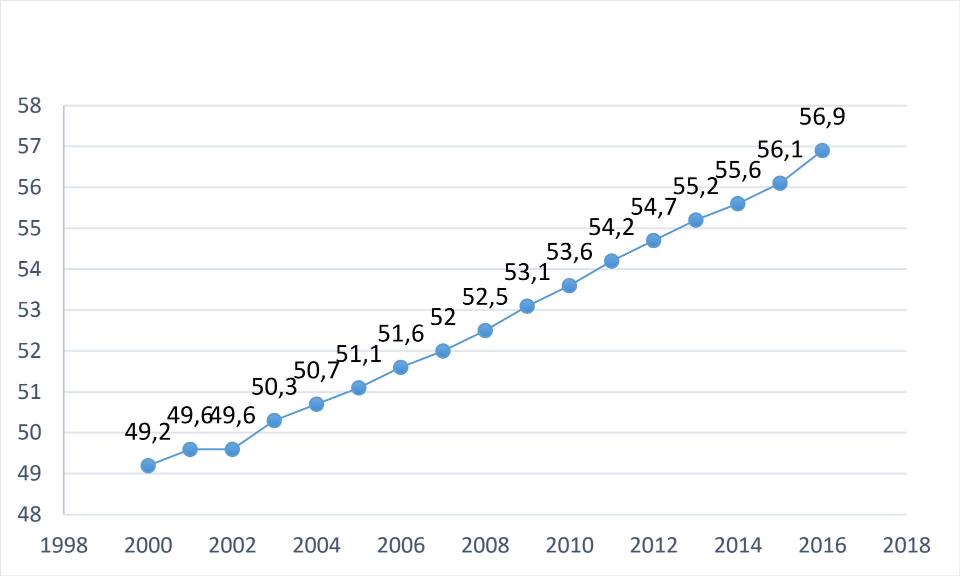


Chart 3.16. Life Expectancy in South Sudan (2000-2016)

Note: There is a steady increase in life expectancy in the country. The average life expectancy around the world is 74 years.

Reduces mortality which changes age structure of the population.

Better health care reduces infant and children mortality. This reduction in mortality has a positive effect in the economy with more entries to education and increased adult workers. Additionally it creates a smother transformation for older individuals to retire.

Health improvement to reduce infant and maternal mortality in South Sudan is a given. The country is among the worst in infant and maternal mortality rate in the world. The infant mortality rate is 105 (per 1,000 live births), maternal mortality rate is 2,054 (per 100,000 live births), and only 17% of children are fully immunized (World Bank 2011).

4.2 Human capital effect on economic development of South Sudan

4.2.1 Life expectancy, GDP, and GDP (PPP) in South Sudan from 2010-2016

Year	Life Expectancy	GDP(growth)	GDP (PPP)
2010	53.6	5.5	3793.9622
2011	54.2	-4.6	3461.751
2012	54.7	-46.1	1786.5262
2013	55.2	13.1	1937.5956
2014	55.6	15.9	1926.0521
2015	56.1	-5.3	1741.0981
2016	56.9	0.7	1,671

Correlations

		LE	GDP p	GDP g
LE	Pearson Correlation	1	-.696	.341
	Sig. (2-tailed)		.124	.508
	N	6	6	6
GDP p	Pearson Correlation	-.696	1	.060
	Sig. (2-tailed)	.124		.910
	N	6	6	6
GDP g	Pearson Correlation	.341	.060	1
	Sig. (2-tailed)	.508	.910	
	N	6	6	6

The table above shows the various relations between life expectancy, GDP (annual growth), and GDP (ppp) of the Nation. These relationship have been analyze in SPSS. The results indicate that there is no statistical difference, however, analysis shows a positive correlation between GDP annual growth and life expectancy but the strength is weak at 34.1%, meanwhile the correlation between GDP (PPP) R shows a negative relationship between the two at -69.6%.

4.2.2 Life expectancy, enrollment rate and teacher/ pupil rate in South Sudan from (2010-2016)

Year	Life Expectancy	Enrolment rate	Teacher/pupil ratio
2010	53.6	46%	52
2011	54.2	63%	52.4
2012	54.7	65.9%	50.1
2013	55.2	61.9%	47
2014	55.6	62%	12.0
2015	56.1	77.8%	40.0
2016	56.9	75.8%	43.0

Correlations

		LE	ER %	TPR
LE	Pearson Correlation	1	.746	-.343
	Sig. (2-tailed)		.089	.506
	N	6	6	6
ER %	Pearson Correlation	.746	1	.125
	Sig. (2-tailed)	.089		.813
	N	6	6	6
TPR	Pearson Correlation	-.343	.125	1
	Sig. (2-tailed)	.506	.813	
	N	6	6	6

As seen above there is no statistical difference according to the analysis, but a strong and positive correlation has been detected between life expectancy and primary enrollment rates with 74.6% rate and a negative weak correlation between life expectancy and teacher/pupil ratio at -34.3% on the correlation scale.

4.2.3 Primary GER rate, GDP and GDP PPP (2010-2016)

Correlations

		ER %	GDP p	GDP g
ER %	Pearson Correlation	1	-.449	-.136
	Sig. (2-tailed)		.372	.797
	N	6	6	6
GDP p	Pearson Correlation	-.449	1	.060
	Sig. (2-tailed)	.372		.910
	N	6	6	6
GDP g	Pearson Correlation	-.136	.060	1
	Sig. (2-tailed)	.797	.910	
	N	6	6	6

The results show no statistical difference, however there are negative weak relationship between primary enrollment rate, GDP and GDP ppp with -14% and -44% respectively.

4.2.4 Teacher/pupil ratio, GDP and DGP (PPP) 2010-2016

Correlations

		TPR	GDP p	GDP g
TPR	Pearson Correlation	1	.322	-.518
	Sig. (2-tailed)		.534	.292
	N	6	6	6
GDP p	Pearson Correlation	.322	1	.060
	Sig. (2-tailed)	.534		.910
	N	6	6	6
GDP g	Pearson Correlation	-.518	.060	1
	Sig. (2-tailed)	.292	.910	
	N	6	6	6

The results show no statistical difference, however there are negative relationship between teacher/pupil and GDP at -51%, whilst GDP ppp shows a positive but weak relationship at -51%.

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

The broad objective of this study is to examine the role of primary education in human capital formation and economic development in South Sudan. It has been argued that investment in human capital through education, health and training is likely to spur economic and social development in any country set out to change its economy.

Under certain conditions, investment in human capital through education, health and training could serve to increase individual's earning and productivity, for increased knowledge and skill will yield improved economic outcomes for both individuals and societies. Therefore, in developing countries investment in primary education is one of the strongest and most often used economic arguments based upon the concept of human capital.

This study therefore arises out of concerns to understand how investment in education and health affects economic development process in South Sudan with particular emphasis on primary education influence in promoting learning and capability building of workers. The specific objectives of this study were outlined as follows:

- Establish an understanding of primary education and health characteristics within the context of economic development
- Investigate the drivers of human capital development in South Sudan
- Survey the economic evidence in support of a strong focus on primary education and health.

The thesis employed an empirical approach designed in two stages; first; level analysis using official data to determine correlation and effects of education and health on economic development of the country second; case studies done in developing countries with the same economic and social characteristics of South Sudan, aimed at providing deeper insights into the relationship between literacy and productivity, health and income distribution, training and usage of technology in production...etc.

The comparative analysis done by SPSS showed that there is no significant statistical difference in most of the education and health variables with the economic variables , but it showed correlation between those variables. Interestingly, the analysis showed that better health positively affects primary education and economic development of South Sudan. Primary education variables had a mixed reaction to life expectancy, where enrollment rates has a positive strong relationship and teacher/pupil had a negative weak relationship with life expectancy. From the economic development side the analysis indicates poor correlation with no apparent statistical significance. Where GDP annual growth showed positive weak reaction to life expectancy increase and GDP (PPP) showed a strong negative one. Looking at the direct effect of primary education on the Country's economy, the results does not support the strong effect claim on the economy. The results shows negative and weak relationship between GDP, enrollment rates and teacher/pupil ratio. This showed that the existing divergence in the literature could be viewed in the South Sudan context. So I decided not to stop at that point of the current findings but rather to investigate further. It could be the case that educational and health system has negative effect or low effect due to poor financing by the government which counterbalanced the strong positive impact making the aftermath effect neutral and sometimes negative hence insignificant results.

These results, for instance result of better health provision partly supports my hypotheses that affects education and economic development positively.

With better child health that increases school attendance, cognitive ability and learning, reduction of mortality rates where literate women with basic education seek medical help for themselves and children, and employment in different activities where individuals were able to invest on themselves once in the job. With regard to effective expansion of primary education having strong effects on economic development, my findings were surprising. The results does not support the strong effect claim on the economy. The results shows negative and weak relationship between GDP, enrollment rates and teacher/pupil ratio. The results can be attributed to the fact that majority of individuals with basic education can be found in rural areas and mainly in agricultural sector. The sector is mainly sustenance where there are no visible contribution to the country's GDP. İn addition, the privet sector and even some public sectors demands for qualified laborers. This makes it difficult for basic education holders with no skills to survive in or be desired. Employment in urban areas, in jobs that doesn’t require high qualification or level of education is dominated by foreign workers from the neighboring countries such as Kenya, Uganda, etc.

5.2 Conclusion

South Sudan investment in human capital formation and development through primary education and health is indeed a gateway to development economically and socially. Although my analysis of the past six years to determine the effect of human capital on economic development in the country showed that there is no apparent statistical significant differences detected among health and education variables and economic development, the analysis shows a strong correlation between them. I used life expectancy, an indicator of health improvement as the independent variable to detect its relationship with education and development because it’s a crucial case variable in the individual education choices and ability. Furthermore, these education choices is associated with future generations, through income, productivity and human development changes.

The results partly support the claim that better health positively affects primary education and economic development of South Sudan. Primary education variables had a mixed reaction to life expectancy, where enrollment rates has a positive strong relationship and teacher/pupil had a negative weak relationship with life expectancy. The positive correlation in enrollment rates and life expectancy can be attributed to the following:

- A better child health increases and affects their school attendance, cognitive ability and learning.
- Reduction in mortality rates, because literate women with basic education tend to seek medical help for themselves and sick children.
- Another benefits can be interpreted in form of employment in different activities. This enables individuals to invest in themselves once in the job, this include health investments.

Meanwhile, the cause of the negative relationship with teacher/pupil ratio lies in the shortage in teachers where in some areas the teacher/pupil ratio stands at 52:1 and even 72:1. This affects students' performance outcome negatively, since teaching quality is a strong contributory factors in better student performance and achievement in class. This issue goes directly to the heart of the learning shortfalls in South Sudan's education system. Teacher's qualifications can also be attributed for that negative relationship, the lack of adequate qualifications is one of the major challenges facing the educational system in South Sudan. Just 16 percent of those teaching in primary schools have professional qualifications, the rest either possesses primary school education only or their status are unknown. In addition, only fewer than half of the country's teachers have received training. This impacts the learning process and encourages student dropout of school.

From the economic development side the analysis indicates poor correlation with no apparent statistical significance. Where GDP annual growth showed positive weak reaction to life expectancy increase and GDP (PPP) showed a strong negative one. This is linked to unequal income distribution and poverty in the country, where increase in poverty rates is intertwined with health disparities. The reason GDP ppp is negative is that people consume to survive, once the individual's needs are met and satisfied majority of population don't spend on other necessities like health care mainly because they are expensive. In turn, the weak relationship between GDP growth and life expectancy is due to the fact that rural population which has low lifespan is dependent on sustenance farming which do not contribute in the country's GDP. In addition, instability is affecting the country's oil production which accounts to 60% of its GDP. This non- economic activity contributes to decline in level of income in the country.

Looking at the direct effect of primary education on the Country's economy, the results does not support the strong effect claim on the economy. The results shows negative and weak relationship between GDP, enrollment rates and teacher/pupil ratio.

- The majority of individuals with basic education are found in the agricultural sector. The sector is mainly sustenance where there are no visible contribution to the country's GDP as mentioned before.
- The privet sector and even some public sectors demands for qualified laborers, this makes it difficult for basic education holders with no skills to survive in or be desired. Employment in urban areas, in jobs that doesn't require high qualification

or level of education is dominated by foreign workers from the neighboring countries such as Kenya, Uganda, etc.

As seen there are a number of issues that may hinder the smooth interaction between human capital and economic development. Inadequate investment in education and health are clearly not the only cause of the country's economic difficulties. However, the poor health and education of South Sudan's workers is one factor explaining its low income. Therefore the absence of direct and positive relationship between primary education and indicators of social and economic development in South Sudan shouldn't be taken as a negative commentary on basic education value and importance. Empirical evidence from other developing countries suggests that expansion of primary education does have a positive influence. The real question for the country is "not whether and how much basic education is necessary, but how to enhance the beneficial consequences of basic education in specific circumstances.

5.3 Policy Recommendation

With many issues hindering human capital involvement in the economic development of the country, inadequate investment in education and health stands out as the major cause of the country's economic difficulties. Therefore, a literate, educated and healthy population is a major requirement for successful and sustainable development. Including social equity principles in the center of the development agenda, South Sudan will have the opportunity to do things differently. The main strategic choices that the country need to take into account are the following factors:

a) The decline in the national education budget, is hindering country's free education plan, this combined with economic barriers especially at the household level leads to drop-outs as children are forced to contribute in household economies, or families become unable to send children to school due to high school fees. In addition, facility development and teacher payment is affected negatively. Therefore, Balance provision between access to education services and the quality of those education services is an important factor in human capital and economic development.

b) Political conflict and instability are negatively affecting education spread. Hence, not only visible features of conflict and disaster should be addressed both within the education policy framework, alleviation measures should also be integrated within all of education planning aspects and delivery.

c) For medium term goals attainment, prioritizing programs and presenting them in order is beneficial. For example, Inadequate numbers of qualified teachers – especially female role models – and other human resource limitations; inadequate physical facilities and infrastructure of schools, and teaching materials…etc.

d) Education improvement plans should be flexible to allow for short-term major interventions without negative impact on the long-term education outcomes. For example making it possible for overage children and youth to enroll in primary school and elimination of psycho-social barriers such as age-lapse among the pupils can increase the outcome possibility of basic education completion and promote secondary and higher education attainment.

e) Promotion of gender equality and increasing girl's enrolment rates in primary education, and building plans to eradicate negative cultural barriers that is primarily driven by traditions, such as girls-child early marriages. Also initiation of educational program to prevent sexual harassment and early pregnancy in schools

f) Development and implementation of creative education programs to accommodate the most disadvantaged and improve the quality of their lives and promote lifelong learning.

g) Increasing of the allocation to health as a share of the total government budget, to cover the chronic shortage in health professionals at all levels, from midwives, nurses, lab technicians, doctors to surgeons. This can allow the import of qualified health personals from neighboring countries, in addition this allows the training of health workers especially nurses and midwifes.

h) Development of new initiative to allow people living in rural communities to easily access health services. Eighty three per cent of the estimated 12.3 million population of South Sudan live in rural settings in communities Communicable diseases are a leading cause of mortality and morbidity in South Sudan.

i) Finally, the government should ensure that basic education and health planning and implementation are equitable and are driven by the different needs between and within states; and that the most disadvantaged and underserved areas should be prioritized.

5.4 Recommendations for Further Research

Based on the data in this study and the conclusions drawn, the following topics for additional research are recommended: Additional research is needed in the indirect Effects of Investment in Human Capital through basic education and health were they are treated as separate components of human capital. Here the possible linkages between them are discussed. Expenditures on education may affect health and parental education may benefit children. Health expenditures may themselves affect the value of education. These links are important for understanding the potential range of benefits which accrue to expenditures on human capital.

Additional research is needed in micro studies to determine Rates of Return on Educational Investment. From Micro Studies the conventional wisdom is that there is a high rate of return on primary schooling. Instead of focusing on enrollment rates only the focus should be on basic school completion rates, earnings and other variables deemed important such as gender

Additional research is also needed in macro studies to further probe the nature of the differences in physical and human capital, especially importance should be given to total factor productivity (TFP) which is largely attributed to technology usage with a mixer of efficiency and innovation and its effects on growth and development.

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ÖZGEÇMİŞ

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Objective

I am a highly motivated economics graduate looking to start a career as an academician and a humanitarian aid worker and build my skills with reputable organizations. I am a dedicated, creative, hardworking person and a team player and enjoy a level of flexibility. I have the ability to learn and use the knowledge gained to improve my capabilities.

Education

MASTERS DEGREE | 2015_CURRENT | GAZI UNIVERSITY

Major: Economic Development and Growth

Minor: Econometrics

HONOR DEGREE | 2005_2011 | UNIVERSITY OF JUBA

Major: Economics

Minor: Statistics and Sociology

Skills & Abilities

COMMUNICATION

I'm a native Arabic speaker with an excellent command of English language and a good command of Turkish language. Confident, with professional speaking abilities and excellent presentation skills given my experience as a teaching assistant. A good listener and can interact effectively with people from different backgrounds.

LEADERSHIP

Before I joined university of juba as a staff member I was apart time lecturer in the economics department, giving lectures in Arabic since there were a shortage of Arabic speaking lecturers in that department. I also participated in none teaching activates like organizing examination meeting boards, and assisting in exam invigilation as a voluntary work. Three months after my appointment, I have managed to become assistant examination officer handling everything from exam's coordination to result supervision with five staffs to supervise. And I hold a strong recommendation from my supervisor for demonstrating an excellent leadership skills in that position.

When I was doing my undergraduate studies I was an active member in several associations. But my most uplifting work was with POSA, an organization that helped students from war torn zones in Sudan to integrate successfully in the social and academic college life. I served as a chair of a committee that organized and planed a cultural day at Juba University. To show beauty and diversity of the southern ethnic groups in Sudan, and also create a familiar environment for those student to help them feel at home.

I'm also serving as a secretary general of South Sudanese Students Association in Turkey (SSSAT). An association that help bring south Sudanese students studying in different regions of Turkey together, promote education significance, create relationship with different student associations from around the world, and working with Turkish organizations and institutions through coordination with the embassy of South Sudan in Turkey to foster their welfare.

Experience

TEACHING ASSISTANT | UNIVERSITY OF JUBA | 2013_CURRENT

- Assist faculty members with classroom instructions, exams and record keeping
- Assist senior lecturers in some research papers
- Deliver lectures for undergraduate courses
- Proctor examinations
- Prepare presentations for lectures
- Assist senior lecturers develop course plans, create and write materials such as syllabus and supplementary notes

JONIOR ACCOUNTANT | SEM ELECTRO-MECH NICAL COMPANY| 2012_2013

- Managing the company's cash flow.
- Payment of salaries and salary advances
- Prompt clearance for all company's advances
- Maintain financial records for all projects and other accounts, as well as maintain petty cash.

PROCURMENT OFFICER | JMC HOSPITAL | 2011_2012

I'm responsible for carrying out market survey, so as to obtain various quotations for items, and purchasing all the hospital items.

GAZİLİ OLMAK AYRICALIKTIR...