

**GLOBALIZATION OF ENERGY PRODUCTION  
IN KENYA: A CASE STUDY OF  
SELECTED STATE AGENCIES AND MINISTRY OF  
ENERGY & PETROLEUM**

**YUWEI CHEN**

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## **DECLARATION**

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

Signature: .....

Date: .....

**YUWEI CHEN**

**D61/68764/2013**

This research project has been submitted for examination with my approval as the University supervisor.

Signature: .....

Date: .....

**DR. JOHN YABS**

**SENIOR LECTURER**

**SCHOOL OF BUSINESS**

**UNIVERSITY OF NAIROBI**

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The same time one year ago, I was notified by AESIEAP (Association of the Electricity Supply Industry of East Asia and West Pacific) Organizing Committee that my abstract of paper was accepted by the Committee. I think it's the high time that I wrote something for this country which I lived for over two years. I am from the Power Industry, so as to the project of MBA, I also intend to study on something that I am familiar and which I think maybe helpful to the nation—Power Development Strategy.

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## ABSTRACT

Kenya has a serious shortage of power with only less than 25% of the population having access to the electricity. As the commercial and political hub of East Africa, Kenya is also intending to exponentially grow its economy in a short period. Government of Kenya (GOK) made 5000MW+ Plan in 2013 to support its economic development strategy. Due to high consumption of energy, the country has to increase its installed power capacity; however, increase of installed capacity needs large amount of investment. With the contradiction between social development and funding shortage, Kenya shifted its eyesight from domestic market into international investors. With introduction of PPP (Public-private Partnership) model, IPP (Independent Power Producer), BOT (Build, Operate & Transfer) and BOO (Build, Operate & Own) were widely applied under globalization trend, bringing about huge overseas funding as well as rich management experience and advanced technology. This study selected the power development strategy in the international business expansion of Kenya as the main topic and sought to find the strategies adopted by the GoK and other power sectors to absorb FDI under globalization background. The findings includes following points: challenges faced by the GoK to absorb FDI; strategies adopted by the GoK; International business environment etc. This study made analysis on the power development strategy adopted by the GoK and sought to find suitable solutions for the nation to attract international investors and absorb overseas funding with reference to the Porter's Diamond Model, and then made conclusions that globalization is the key progress to boom the power industry in Kenya. The study found that the GoK made relatively attractive policies to absorb FDI, such as Foreign Investments Protection Act was made in 1964, which covers Farming and Animal Husbandry, Tourism, Infrastructure, Transportation, Power, Water Resource, Manufacturing, Training and Financing etc. Various encouragement policies were made for the promotion of investment such as investment allowance, depreciation, exemption of custom duty etc. These policies played an important role in the process to encourage foreign investors to invest in Kenya. The GoK have made excellent international business practice with the reference to globalization strategy. When Kenya is confronted with globalization, it took advantage of location, climate, project contracting models etc. and defeated other opponents with a successful practice of international business to absorb enough overseas finding. As the foundation of other industries, the power sector gained tremendous development to provide enough force for whole national economy. One of the beneficiaries is the 5000 MW+ Plan made by the MoE, many power plants are under construction, which will supply endless power to all industries. Globalization is a must in Kenya based on the classical theories, which also led to the successful practice. Both the theories and practice supported the study with enough data collected from state power agencies in Kenya. More and more people will benefit from this successful practice of the GoK with the model being copied and referred by other nations and regions.

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## **ABBREVIATIONS AND ACRONYMS**

**AU:** The African Union

**BOO:** Build, Operate & Own

**BOT:** Build, Operate & Transfer

**COMESA:** the Common Market for Eastern and Southern Africa

**DBO:** Design-Build-Operate

**DRC:** Democratic Republic of Congo

**EAPP:** The Eastern Africa Power Pool

**ECA:** Economic Commission for Africa

**EEPCO:** Ethiopian Electric Power Corporation

**EPC:** Engineering, Procurement and Construction

**ERC:** Energy Regulatory Commission

**ERS:** Economic Recovery Strategy

**ESKOM:** Electricity Supply Commission

**EU:** European Union

**FDI:** Foreign Direct Investment

**FIDIC:** Fédération Internationale Des Ingénieurs Conseils (International Federation of Consulting Engineers)

**GDC:** Geothermal Development Company

**GoK:** Government of Kenya

**IGMOU:** Inter-Governmental Memorandum of Understanding

**IPP:** Independent Power Producer

**KETRACO:** Kenya Electricity Transmission Company Limited

**KenGen:** Kenya Electricity Generating Company

**KIA:** Kenya Investment Authority

**KICC:** Kenyatta International Convention Center

**KPLC:** Kenya Power and Lighting Company

**LSTK:** Lump Sum Turnkey

**MNC:** Multinational Corporation

**MoE:** Ministry of Energy and Petroleum

**PLC:** Production Life Cycle

**PPP:** Public-Private Partnership

**REA:** Rural Electrification Authority

**TANESCO:** Tanzania Electric Supply Company Limited

**UEGCL:** Uganda Electricity Generation Company Limited

**UNECA:** United Nations Economic Commission for Africa

**UPDEA:** The Union of Producers, Transporters and Distributors of Electric Power in  
Africa

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Since the world is becoming a Global Village (Marshall McLuhan, 1964), there is no distance among people under the help of modern powerful communications systems. There is also no blockage for inter-connection and mutual-link, then absorption of investment and funding seems to be much simpler than before. As the force to drive economic development, the power industry plays an important role in the globalization trend of all nations (Jeremy Rifkin, 2013).

With solid data from various parastatals in Kenya, this case study is focusing on the power industry in Kenya and intends to explore the method of bringing foreign direct investment (FDI) by Government of Kenya (GoK) under globalization background. Hence, it can also be used as reference for other nations in the similar international business environment.

There is no unified definition for Globalization. Economists refer to it as the integration of global economy and market, especially the internationalization of cross-border management and finance of MNCs. Politicians refer that the giants make constant expansion of international interference so as to establish new format of global strategy. Culturists prefer the phenomenon that cultural market is occupied by commercial culture, popular culture and consumerism, while socialists and futurists concern more about global affairs (Yue Changling, 1995). Then Theodore Levitt came

and popularized the term of globalization. (Theodore Levitt, 1985)

As a developing country, Kenya does not have an advantage in natural resources. It has a poor infrastructure due to shortage of funding. However, tremendous development has been made in the power industry in recent years thanks to its successful power development strategy. Hence, globalization, the buzzword from developed countries, is widely applied in this developing country.

This chapter intends to describe the organizing structure of power sector in Kenya which includes Ministry of Energy and Petroleum (MoE), Energy Regulatory Commission (ERC), Rural Energy Authority (REA), Kenya Electricity Transmission Company Limited (KETRACO), Geothermal Development Company (GDC), Kenya Electricity Generating Company (KenGen) and Kenya Power & Lighting Company (KPLC) as well as illustrate their main roles in each section and their relations. As depicted in the structure chart, it is very easy for us to understand Kenya Power Section composition.

It also brings about new conception from the MoE, the 5000MW+ (MoE & Davis Chirchir, 2013), which is full of conflict in the development of power industry. As the key step of Vision 2030 (Mwai Kibaki, 2008), the 5000MW+ plan consists one of the most important factors. Some people think it is ambitious because it pushes forward the power section in Kenya greatly; however, some people suspect this idea and consider it is only an empty dream which is far beyond the ability of Kenya. In any event, current progress of power development indicates this blue print is bringing

about more benefit to the people. As a result, we have to believe that even a dream can also inspire the society.

### **1.1.1 Concept of Globalization**

Globalization can be conceived as a process (or set of processes) which embodies a transformation in the spatial organization of social relations and transactions, expressed in transcontinental or interregional flows and networks of activity, interaction and power (Anthony McGrew, 1999). In 2000, the International Monetary Fund (IMF) identified four basic aspects of globalization: trade and transactions, capital and investment movements, migration and movement of people, and the dissemination of knowledge (IMF, 2000). It also refers that the growing economy of each country is becoming dependable through the wide transmission of large quantity and multiple commodities and labor, flow of international capital, expansion of technology, which indicates the flow and transference (IMF, 2000).

The Globalization we are talking today is the process of international integration arising from the interchange of world views, products, ideas and other aspects of culture after World War II (IMF, 1997). Advances in transportation and telecommunications infrastructure, including the rise of the telegraph and its development of the Internet, are major factors in globalization, generating further interdependence of economic and cultural activities.

As to “Economic globalization”, we can turn to Mr. Theodore Levitt (1985), who is considered as the initial developer of the term of Economic globalization: Economic

globalization is the increasing economic integration and interdependence of national, regional and local economies across the world through an intensification of cross-border movement of goods, services, technologies and capital. Whereas globalization is a broad set of processes concerning multiple networks of economic, political and cultural interchange, contemporary economic globalization is propelled by the rapid growing significance of information in all types of productive activities and marketization, and by developments in science and technology. Economic globalization primarily comprises the globalization of production and finance, markets and technology, organizational regimes and institutions, corporations and labor.

### **1.1.2 Globalization of Power Industry**

According to Robert J. Carbaugh (2013), there contains three stages of Globalization: “First wave: 1870—1914; Second wave: 1945—1980; Latest wave: 1980 till now” (p. 18). Obviously, Kenya is stepping into the latest wave of globalization.

Under the Globalization process in Kenya, there are two problems we need to solve: funding and power. As to the funding, Kenya is dedicated to building the nation as the hub of East Africa; as to the power, Kenya proposed 5000 MW+ plan and joined the Eastern Africa Power Pool (EAPP) to share the power distribution system.

As one of successful power pools, the Eastern Africa Power Pool (EAPP) was established in 2005 with the signing of an Inter-Governmental Memorandum of Understanding (IGMOU) by seven Eastern Africa countries, namely: Burundi,

Democratic Republic of Congo (DRC), Egypt, Ethiopia, Kenya, Rwanda and Sudan. In further development, EAPP was adopted as a specialized institution to foster power system interconnectivity by the heads of states of the Common Market for Eastern and Southern Africa (COMESA) region. Tanzania, Libya and Uganda have joined EAPP in March 2010, February 2011 and December 2012 respectively.

### **1.1.3 Background of Kenya Vision 2030**

Following the expiry of the Economic Recovery Strategy (2003-2007), Kenya's Development Agenda is now anchored on the Kenya Vision 2030, which aims at creating "a globally competitive and prosperous country with a high quality of life by 2030". It aims to transform Kenya into "a newly –industrialized, middle-income country providing a high quality of life to all its citizens in a clean and secure environment". Simultaneously, the Vision aspires to meet the Millennium Development Goals (MDGs) for Kenyans by 2015.

The Vision is anchored on three key pillars: economic, social and political. The economic pillar aims to achieve an average economic growth rate of 10 per cent per annum by 2012 and sustaining the same till 2030 in order to generate more resources to meet the MDGs and Vision 2030 goals. The social pillar seeks to achieve a just, cohesive and equitable social development in a clean and secure environment, while the political pillar aims for a democratic, issue-based, people-centered, result-oriented and accountable system.



#### **1.1.4 Kenya's Power Sector**

We need to get basic information on Kenya Power Sector, such as its power structure, main power resource and 5000 MW+ Plan, then we can have a thoroughly understanding on the background. The Ministry of Energy and Petroleum (MOE&P) is in charge of making and articulating energy policies to create an enabling environment for efficient operation and growth of the sector. It sets the strategic direction for the growth of the sector and provides a long term vision for all sector players. The Energy Regulatory Commission (ERC) is responsible for regulation of the energy sector. Functions include tariff setting and oversight, coordination of the development of Indicative Energy Plans, monitoring and enforcement of sector regulations.

The Rural Electrification Authority (REA) was established in 2007 with a mandate of implementing the Rural Electrification Program. Since the establishment of the Authority, there has been accelerated connectivity of rural customers who have increased from 133,047 in 2007 to 382,631 in 2012 (REA, 2014). Kenya Electricity Transmission Company Limited (KETRACO) was established to develop new high voltage electricity transmission infrastructure that will form the backbone of the National Transmission Grid. Its core business is to plan, design, build and maintain electricity transmission lines and associated substations.

Kenya Geothermal Development Company (GDC) is a 100% state-owned company, formed by the Government of Kenya as a Special Purpose Vehicle to fast track the

development of geothermal resources in the country. Its core business is to develop geothermal power and provide more clean and sustainable energy for whole Kenya.

The Kenya Electricity Generating Company (KenGen) is the leading electric power generation company in Kenya, producing about 80 percent of electricity consumed in the country. The company utilizes various sources to generate electricity ranging from hydro, geothermal, thermal and wind. Kenya Power and Lighting Company (KPLC) is a limited liability company which transmits, distributes and retails electricity to customers throughout Kenya. KPLC is a public company listed in the Nairobi Stock Exchange (NSE). The company is a national electric utility company, managing electric metering, licensing, billing, emergency electricity service and customer relations.

### **1.1.5 Energy Parastatals in Kenya**

As we can see from the above organizing structure of Kenya power sector, energy parastatals in Kenya consists of MoE, ERC, KenGen, KPLC, GDC and KETRACO etc. This section will cover three topics, including energy source of Kenya power, coverage of Kenya state grid and 5000 MW+ Plan.

Total installed power capacity of Kenya is 1664 MW (MoE, Jul 2013) with hydro-power of 770 MW, nearly half of total capacity, thermal power of 622 MW, geothermal power of 241 MW, Cogeneration of 26 MW and wind power of 5.1 MW.

Total electricity output in 2013 amounts to 8.45 billion KWH. In Kenya there is a serious lack of electricity because the national grid coverage is only 30% and rural

area coverage is only 10%. Therefore there is a very high demand for developing both new power plants and transmission lines.

In September 2013, the MoE launched 5000 MW+ Plan in Kenyatta International Convention Center (KICC) which planned to add at least 5000 MW to the grid in the next three years as shown in the table 1 of Appendices. As we can see in this table, the power installed capacity will be increased from current 1664MW into 6700MW within three years, among which geothermal covers 1646MW, gas power covers 1050MW, coal power 1920MW and wind 630MW. The power generation will be based on the framework of PPP mode (Public-Private-Partnership) with IPP (Independent Power Producer) type, which intends to increase the power installed capacity, meanwhile reduce the electricity price. Therefore, the 5000MW+ plan benefits both the development of the economy and the people.

## **1.2 Research Problem**

Kenya intends to boom its economy in recent years. There are two factors we have to face: shortage of investment, and lack of power. Power industry plays an important role in the development of economy among various factors of national infrastructure. How can the GoK push forward its development of economy under the background of both shortage of investment and lack of power? It needs high technique and wisdom.

To solve this problem, what the GoK can apply is the globalization: economy globalization and power globalization. Economy globalization will enable us to use outside investment and technology; power globalization will enable us to join the

regional power pool and enjoy the benefit of balanced power distribution system.

Various countries are competing for absorbing the foreign investment under globalization trend, which can win more funding if he has better investment environment and attractive policy. GoK made related policies to absorb foreign investment, such as *Foreign Investments Protection Act* made in 1964, which covers Farming and Animal Husbandry, Tourism, Infrastructure, Transportation, Power, Water Resource, Manufacturing, Training and Financing etc. A series of encouragement policies were made for the promotion of investment such as investment allowance, depreciation, exemption of custom duty etc. as follows:

**Investment allowance:** Investors in manufacturing and hotel sectors outside Nairobi and Mombasa are eligible for an investment allowance of 85 percent on plant, machinery, buildings, and equipment. Investments located in Nairobi and Mombasa are eligible for the investment allowance at 35 percent. For manufacturers under bond, the applicable rate is 100 per cent for all locations.

**Depreciation:** Liberal rates are allowed for depreciation of assets based on book value as follows: Hotels have 4% depreciation of assets per year, industrial buildings of 25% per year, plant and machinery of 125% per year and Vehicles, trucks, and tractors of 25-37% per year. **Loss carried forward:** Business enterprises that suffer tax losses can carry forward such losses indefinitely to be offset against future taxable profits.

**Remission from customs duties:** Duties on machinery and equipment may be reduced

to 10% where the investment is expected to have net foreign exchange earnings or savings for Kenya. A 50 per cent remission of duties and tax is granted to industries established within designated boundaries of Nairobi, Mombasa and other urban centers (2012, Kenya Revenue Authority).

### **1.3 Research Objective**

The research objective of this study covered three points: (i) To determine the contributions made by state energy corporations in Kenya and MoE to international business; (ii) To verify the possibility of power development strategy of GoK under globalization background; (iii) To find out the connections between power development strategy and globalization in Kenya.

### **1.4 Value of the study**

This research is focusing on the power development strategy from the angle of one country based on the practical data analysis. It can work as a guideline to a nation such as Kenya and other countries in similar situation to compete with other countries to absorb FDI (Foreign Direct Investment). It can be used as a national competency strategy.

Power development serves as the core factor to drive economic development. This study points out various practical methods which can direct the whole nation to develop its power blueprint in a sustainable way. So it can also be used as reference for the government when they make related policy.

This study intends to find some useful solutions combined with current prevailing international engineering contracting models, Michael Porter's Diamond Model as well as two main globalization experts' theory which should be invaluable for the investors when they try to enter into foreign markets and invest overseas. The result is helpful for them to make decision which region they can enter and which strategy they can adopt.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This study consists of three main topics: power project contracting model, international business management and globalization. Accordingly, this chapter will cover these three points. The next section intends to make analysis based on different points of view after careful comparison in every respect and the last section makes a summary and tries to find out useful conclusions which may be helpful for the readers.

#### **2.2 Theoretical Foundation**

This section includes three parts: analysis on power project contracting models, strategy management and globalization. Each part contains a series of typical theories which can support the whole passage.

As to power project contracting model, the study reviews various prevailing contracting and fundraising models in developing countries defined by FIDIC: EPC, BOT (BOOT) and PPP etc. As to power development strategy analysis, this chapter gives Michael Porter's Diamond Model. As to Globalization analysis, the study seeks to extract ideas from two influential scholars: Anthony Giddens (1999) and Samuel P. Huntington (1993, 1996).

#### **2.3 Analysis on Power Project Contracting Model**

There are various terms as to the contracting model, which are classified as EPC,

BOT (BOOT) and PPP etc. We will focus on BOT and PPP, which are mainly applied in Kenya engineering contract market. Analysis on power project contracting model will enable us to know the bottleneck of the GoK as to the absorbing of foreign direct investment.

First and the most popular contracting model is EPC model. Under an EPC contract, the contractor designs the installation, procures the necessary materials and builds the project, either directly or by of the work. In some cases, the contractor carries the project risk for schedule as well as budget in return for a fixed price, called lump sum turnkey (LSTK) depending on the agreed scope of work (FIDIC, 1957). This model appears less frequently in Kenya, which is beyond our discussion in the following chapters.

Compared EPC model, BOT and PPP will be more suitable for Kenya due to the higher demand for financing of the project. The World Bank said in its *World Development Report* that there are three formats including BOT, BOO and BOOT (1994). For most of the developing countries, they are urgent to make up the shortage in the infrastructure areas such as power, transportation and telecommunication. BOT can release the burden from government.

In the late 1970s, the budget was tight in both developing countries and developed countries. As the investment subject, the governments met with more and more difficulties when they were confronted higher demand on infrastructure. BOT (Build, Operate & Transfer) can just meet this demand as a new type of investment method in



both developing countries and developed countries. BOT varies between developing countries and developed countries. In developing countries, the investment subjects are usually foreign companies or consortiums due to relatively lower investment and management level. BOT, BOO and BOOT are widely applied in developing countries because there is no need to rely on the state budget. While in developed countries, the investment subjects are usually domestic companies or consortiums due to relatively stronger investment and management capability.

In a standard BOT model, the infrastructure projects are designed and built by private consortiums or foreign consortiums. Project developers take back their investment after period of operation according to original agreement. The ownership or management right will be transferred to the host Government. Basic idea of financing in BOT model: The government or related organization is responsible to provide a certain Concession Agreement as the foundation of financing; As the investors and operators of the project, domestic or foreign companies are responsible for financing as well as to take the risk, develop the project and win the profit in limited period; Finally, the ownership of the project is transferred to the related government or organizations. Sometimes BOT is called Temporary Privatization (1995).

As the middle term between BOT and EPC, A public-private partnership (PPP) is widely adopted in Kenya as in the infrastructure such as power industry, road and bridge etc. (MoE, 2013). PPP is a government service or private business venture which is funded and operated through a partnership of government and one or more

private sector companies. These schemes are sometimes referred to as PPP or P3.

PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In some types of PPP, the cost of using the service is borne exclusively by the users of the service and not by the taxpayer. In other types (notably the private finance initiative), capital investment is made by the private sector on the basis of a contract with government to provide agreed services and the cost of providing the service is borne wholly or in part by the government. Government contributions to a PPP may also be in kind (notably the transfer of existing assets). In projects that are aimed at creating public goods like in the infrastructure sector, the government may provide a capital subsidy in the form of a one-time grant, so as to make it more attractive to the private investors. In some other cases, the government may support the project by providing revenue subsidies, including tax breaks or by removing guaranteed annual revenues for a fixed time period.

#### **2.4 Strategic Analysis—Michael Porter’s Diamond Model**

In this section, we are delivering one of the most popular strategic theories in nowadays—Michael Porter’s Diamond Model (1990), which will be used to justify the power development strategy by GoK. This chapter will help us to understand the strategy of the GoK in the absorbing FDI.

From the Mercantilism Theory which intended to encourage exportation and restrict

importation in 16, 17 Century, the international theory experienced various period, including Adam Smith and David Ricardo's Absolute Advantage Theory and Comparative Advantage Theory (1817), Heckscher Ohlin's Heckscher–Ohlin Model (1919) in the beginning of 20 Century, Raymond Vernon's Production Life Cycle (PLC) Theory (1966) in 1960s and New Trade Theory in 1970s. The international theory witnesses rapid progress in fast changing trading structure.

The Competitive Advantage of Nations (1990) was originated from Smith's Absolute Advantage Theory (1776). Adam Smith first described the principle of absolute advantage in his publication *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), which argued that all nations would gain rich simultaneously if they practiced free trade and specialized in accordance with their absolute advantage. However, it cannot be used in the situation in case that it does not have advantage in any goods. Here came David Ricardo's Comparative Advantage Theory (1817) to solve this problem. Ricardo defended that there is mutual national benefit from trade even if one country is more competitive in every area than its trading counterpart and a nation should concentrate resources only on industries which it had a comparative advantage (1817).

The question remains that what has caused cost difference in the manufacturing of products of each country even if Comparative Advantage Theory developed the Absolute Advantage Theory. Then Heckscher—Ohlin offered reasonable explanation. Heckscher–Ohlin theorem declares that the exports of a capital-abundant country will

be from capital-intensive industries, and labour-abundant countries will import such goods, exporting labor-intensive goods in return (1919).

Above theories successfully explained certain trading forms, however, they only made a rough observation about the effect of supply factors on the international trade and ignored the effect of demand factors. Under such background, there came the trend of diversification of international trade theory after World War II, involving with New Factor Trading Theory, PLC Theory etc., which enhanced the understanding on international labor division, trading and competition. However, there are considerable limitations due to their separate framework and shortage of organic connection. The development of international trade practice calls on a new pervasive theory.

Here comes with Porter's National Advantage Competitive Theory (Also called Diamond Theory), which was delivered at 1990 as an economic model in his book *the Competitive Advantage of Nations* (1990). Porter classified six factors in his Diamond Model: Factor conditions, demand conditions, related and supporting industries, firm strategy, structure and rivalry, government and chance.

Factor conditions are human resources, physical resources, knowledge resources, capital resources and infrastructure. Demand conditions in the home market can help companies create a competitive advantage, when sophisticated home market buyers pressure firms to innovate faster and to create more advanced products than those of competitors. Related and supporting industries can produce inputs that are important for innovation and internationalization. Firm strategy, structure and rivalry constitute

the fourth determinant of competitiveness. Government can influence each of the above four determinants of competitiveness. Clearly government can influence the supply conditions of key production factors, demand conditions in the home market, and competition between firms. Chance events are occurrences that are outside of control of a firm. The Porter's thesis is that these factors interact with each other to create conditions where innovation and improved competitiveness occurs.

## **2.5 Globalization analysis**

In order to show full image of globalization theory, this section selects two representative scholars who have outstanding performance in the Globalization area and makes an analysis on their theories: Anthony Giddens' Theory of Structuration and Samuel P. Huntington's Clash of Civilizations.

Anthony Giddens is a British sociologist who is known for his theory of structuration and his holistic view of modern societies. He sees the growing interdependence of world society as driven not only by the increasing integration of the world economy, but above all by massive advances in communications (*How Globalization is Reshaping Our Lives*, 1999). He insists that Globalization is the result of modernity, which reflects the transition of the basic system to the whole world. To a certain extent, the globalization of social activity caused by modernity acts as the real development process of world connection.

Samuel P. Huntington, was an influential conservative political scientist from the United States of America whose works involved multiple sub-fields of political

science. He gained renown by his book *The Clash of Civilizations* (1993, 1996), a thesis of a post-Cold War new world order. He asserted that more and more nations set their benefit according to the culture. They formed an alliance with those countries which have the similar origin or culture and clashed with those countries which have the different culture. Major reason caused conflict in modern world was no more out of ideology or economic factors but the cultural difference. Clash of civilizations will take a lead in the global politics rather than the conflict among superpowers.

## **2.6 Summary of the Literature Review**

After full analysis are made on the above-mentioned topics, we can draw some conclusions which will be useful for future study as to power project contracting model, strategy management of international business and globalization.

As to the contracting model, EPC will be less popular due to the shortage of funding in Kenya. PPP and BOT will be more suitable because they can solve the financing problem in Kenya. The same situation will be in the power industry in Kenya, which need both funding and technology. Therefore, PPP and BOT will be sure bring benefit to whole power industry in Kenya.

When we refer to Michael Porter's Diamond Model regarding the power development process in Kenya, we find that three factors are the key points to its booming industry: investment, infrastructure and domestic demand. As a result, the GoK needs to focus on these key elements continuously thus push forward the development of whole industry.

As to globalization, we can see that it acts as the new stage of mankind civilization and the necessary ending of production activity, economic activity and social cultural activity of humankind. Therefore, we can make full use of globalization trend to absorb more investment all over the whole world which should be helpful for the development of national economy.

## **CHAPTER THREE**

### **RESEASRCH METHODOLOGY**

#### **3.1 Introduction**

This chapter highlights the framework under which the research will be conducted. Next section presents the procedures and techniques used in collecting, processing and analyzing of data in order to achieve the objectives of the study.

#### **3.2 Research Design**

Research design adopted in this study was a survey. The research design is aimed at gaining detailed information regarding the challenges with which GoK is facing during the globalization trend and the countermeasures adopted by GoK to absorb foreign investment.

A survey is defined as a brief interview or discussion with individuals about a specific topic (Couper, 2009). Therefore the survey design will be conducted through an exploration of the power development strategy under globalization background. The design enabled the researcher to have in-depth understanding of the behavior pattern towards building a profile on strategy implementation in the power sector of Kenya. It involves an in-depth investigation of how the strategy is implemented in the MoE and other related sections.

#### **3.3 Data Collection**

The survey was carried out in the MoE head office in Nairobi where strategic decisions are made before they are released and implemented as well as in all other



power related sectors.

The research contains both primary and secondary data. Primary data was collected using self-administered interview guide while secondary data was collected by use of desk search techniques from published reports and other documents.

Primary data was collected from the MoE and other related organizations to ensure clarification of issues to the respondent and so as to attain high response rate and minimize errors. The questionnaires were semi-structured, targeting the head of the MoE and related organizations. Personal interviews were carried out with permission from various organizations. Secondary data was collected in the study, which covered publications including newspaper, internet and internal documents including company profile and various reports.

### **3.4 Data Analysis**

The purpose of data analysis is to search for important meanings, patterns, and themes in what the researcher has heard and seen (Swanson & Holton, 2005). The present study employs the qualitative type of analysis, specifically the content analysis. Yin declares that data analysis consists of examining and categorizing, both qualitative and quantitative evidence to address the initial propositions of the study. This is applicable to this study in order to achieve the objective of this study and answer to the research questions (Yin, 1994).

The statistical survey was used to analyze the respondents' views about the challenges

to GoK from neighboring countries and its countermeasures to deal with the challenges. The advantage of using content analysis is that it enables grouping of the collected data into various groups for easier analysis which is presented in continuous prose while descriptive statistics employed descriptive tools such as frequencies, percentages and other graphical presentations as appropriate which will be used for ease of understanding and analysis.

## **CHAPTER FOUR**

### **ANALYSIS, FINDINGS AND DISCUSSION**

#### **4.1 Introduction**

This chapter outlines findings of the study and the data analysis as per the objective of the study. The analysis was both qualitative and quantitative. The main objective of this study was to identify the strategy formulation practices to absorb FDI of Kenya power sector under globalization background. Data was gathered exclusively from the interview guide. The study targeted the top management, including Mr. Eng. Joseph K. Njoroge, Principal Secretary of the MoE; Mr. John Omenge, the Chief Geologist of the MoE; Mr. Eng. Kaburu Mwirichia, Director General of ERC; Mr. Albert Amugo, Managing Director of KenGen; Dr. Silas M. Simiyu, Managing Director & CEO of GDC. Content analysis was used in this chapter to capture the statements of the respondents during interviews.

#### **4.2 The State Power Policy**

We have discussed in former chapter about the dilemma in Kenya to develop its economy as well as its power industry: shortage of investment, and lack of power. Following chapters will make analysis on the power development strategy based on the situation in Kenya from five points with reference to Michael Porter's Diamond Theory: (i) The state power policy; (ii) Power contracting model; (iii) Firm strategy; (iii) Location advantage; (iv) EAPP. Then solutions will be given as to the shortage of both funding and power.

We talked about the Kenya Vision 2030 in Chapter 1, which was launched on 10 June, 2008 by President Mwai Kibaki. It is the national long-term development policy that aims to transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment. The Vision comprises of three key pillars: Economic; Social; and Political. The Economic Pillar aims to achieve an average economic growth rate of 10 percent per annum and sustaining the same until 2030.

Kenya Vision 2030 (Swahili: Ruwaza ya Kenya 2030) is the country's development program covering the period 2008 to 2030. The guideline of Kenya Vision 2030 cannot be achieved without the support of related infrastructure, among which is the support from power sector, the driving force of the economy. The Energy sector is therefore expected to remain a key player in tackling such challenges as reduction of poverty by half by the year 2015 as per the Millennium Development Goals (MDGs) and overall improvement in the general welfare of the population. Therefore, the analysis to the power development strategy of various state energy agencies is necessary accordingly.

The Kenya Vision 2030 has identified Energy as a key foundation and one of the infrastructural “enablers” upon which the economic, social and political pillars of this long-term development strategy will be built. The successful implementation of the Flagship projects highlighted in the Vision will greatly depend on supply of adequate, reliable, clean and affordable Energy. In particular, the demand for electricity will

increase since it is a prime mover of the commercial sector of the economy. The level and intensity of commercial energy use in the country is a key indicator of the degree of economic growth and development. Ministry of Energy will play a facilitative role in Energy supply by creating an enabling environment for private sector-led growth through policy formulation and development of an appropriate legal and regulatory framework and oversight responsibility.

Guided by its Vision of “Affordable quality Energy for all Kenyans” and while realizing its Mission “ to facilitate provision of clean, sustainable, affordable, reliable and secure energy services at least cost while protecting the environment”, the Ministry will play its contributory role towards achievement of Kenya Vision 2030 by:

- (i) Enhancing power generation capacity;
- (ii) Increasing access to Electricity;
- (iii) Development of new and renewable sources of Energy;
- (iv) Ensuring security of fossil fuel resources; and
- (v) Capacity building of the Energy sector.

On the question of current situation of power industry in Kenya, the respondents highlighted that there were still a long way to go in Kenya to realize stable and cheap power supply system. But all interviewees agreed that tremendous progress have been made in the power generation, transmission and distribution in recent years under great effort of the GoK assisted with various state power agencies.

When asked which is the most urgent to be solved as to the power development process, most of the interviewees agreed that stability of power supply, high price and power shortage are three major questions need to be solved. Limit access to the power

grid also affect a lot of people's life. But solution of these problems also relies on enough finding from the country.

### **4.3 Power Contracting Model**

Analysis on BOT and PPP has been made in Chapter 2 that they will be more suitable for Kenya due to the higher demand for financing of the project. In most of the developing countries, they are glad to make use of PPP model and BOT model in the infrastructure areas such as power, transportation and telecommunication etc. These two models can release the burden from government.

The questionnaire feedback from various state power agencies also supports above analysis, the same result is from MoE. Following power projects are the review quoted from the MoE, commencing recently as part of 5000 MW+ plan: Coal plant: 900-1000MW coal fired power plant in Lamu. Negotiations with the successful bidder, a consortium of companies (Gulf Energy; Centum Investment; Sichuan Electric Power and Design & Consulting Company; Sichuan No.3 Electric Power Construction Company; and China HuaDian Power Plant Operation) are ongoing. To be completed in 2017.

Power Generation: Facilitated and supported the development of a total of 406 MW of new power generation capacity as follows: 87.5 MW Thika Power Ltd; 52 MW Orpower Plant III at Okaria; 24 MW Kindaruma upgrade; 12.8 MW Olkaria wellhead; 20 MW Olkaria well heads; and 210 MW Olkaria Geothermal units.

Coal development: Progressed the procurement of an Independent Power Producer

(IPP) to develop the 700 MW LNG power plant at Dongo Kundu to Tender adjudication stage. Geothermal Exploration in Morendat-Malewa area: Progressed the procurement of an Independent Power Producer (IPP) to develop the 960MW Coal power plant at Lamu to Tender adjudication stage.

Connection of electricity to public institutions: Provided support for electrification of 5,000 public primary schools, with 4,481 electrified through the National Grid and 603 through Solar PV. Monitor, supervise and report on the results of drilling oil exploration wells 4: Etuko, Amosing-1, and Ewoi-1 Wells were spud in Block 10BB; whereas Ekales, and Agete-1 Wells were spud in Block 13T; Bahasi-1 Well was spud in Block 9. The drilling for all the wells was started in 2013. Coal Exploration in the Karoo System: The Ministry has prepared contracts for private firms to tender for exploratory drilling for coal in both Kilifi and Kwale counties. The Ministry also held test drilling and consultative meetings with leadership and the public in the two counties for smooth implementation of the coal drilling in FY 2014/15.

Coal Exploration in Meru/Isiolo: The Ministry has indentified and established access to six coal exploratory drilling sites. The Ministry also held test drilling and consultative meetings with leadership and the public in the two counties for the smooth implementation of the coal drilling in FY 2014/15. Geothermal Exploration in Morendat-Malewa area: The Ministry carried out Geological, Geophysical and Geochemical Surveys and completed delineation of the Morendat-Malewa and Kigio-Marula geothermal prospects.

Installation of wind Energy storage facility in Marsabit: Project is ongoing and is expected to be completed by December 2014. Installation of wind masts and data loggers: Contract for installation of five 100 meter masts awarded and works have commenced. Re-afforestation of Upper Tana: Works on Sondu Miriu catchment started in Chepalungu, Ndoinet and Saino. Community mobilization completed in all sites and sites preparation in readiness for March/April planting ongoing. Lake Turkana Wind power Plant: 300MW by IPP to be completed in 2017, 60MW Kinangop Aeolus Wind Plant.

Olkaria I: Construction of Unit 4 and 5 for 140MW is expected to be commissioned in Jan 2014; and Unit 6 for 70MW in 2015; while refurbishment of the existing units will give additional 45MW on completion in 2016. Olkaria IV: Construction of 140MW of Units 1 and 2 to be completed and commissioned in May 2014, Unit for 70MW in 2015, and Units 4 and 5 for 140MW in 2016. Olkaria V: 140MW for Units 1 and 2 to be commissioned in 2017. Olkaria II: Construction of Units 4 and 5 will be undertaken to have 140MW installed in 2018. Menengai Phase I: Construction of 400MW power plants to be completed in 2017. Above power projects are under construction with most of which are handled in PPP model and BOT model. The actual data shows that PPP model and BOT model are the main stream for power project construction in Kenya. The same result appears in the questionnaire with the feedback from the interviewees.

When asked about the type of power project contracting model (EPC, BOT, BOO &



PPP) applied in Kenya, all interviewees agreed on the current contracting model in Kenya and insisted that PPP and BOT are of great help to GoK to absorb FDI. PPP and BOT model witness great progress in Kenya with the decrease of EPC model.

On the question of preferred type of power source, more than half of the interviewees insisted that clean energy source such as wind power, hydro power, solar power and geothermal power etc. should have priority due to less environmental pollution. Environmental friendly factor should be taken into consideration with the same importance of economy development.

#### **4.4 Location advantage**

Kenya lies in the eastern coast of Indian Ocean, which serves as the hub of East Africa with advantage both in location and climate. As to the location advantage, it means Kenya is in the key position in East Africa; as to the climate, it has the pleasant climate with comfortable temperature in all seasons in the capital region.

The capital, Nairobi, is a regional commercial hub. The economy of Kenya is the largest by GDP in East and Central Africa. Agriculture is a major employer; the country traditionally exports tea and coffee and has more recently begun to export fresh flowers to Europe. The service industry is also a major economic driver. Additionally, Kenya is a member of the East African Community trading bloc.

Mombasa, the second largest city, has been built into a major port city and trade links were established with other nearby city-states, as well as commercial centers in Persia,

Arabia, and even India. The city had a population of 939,370 per the 2009 census. It is located on Mombasa Island and sprawls to the surrounding mainland. The island is separated from the mainland by two creeks: Tudor Creek and Kilindini Harbour. It is connected to the mainland to the north by the Nyali Bridge, to the south by the Likoni Ferry, and to the west by the Makupa Causeway, alongside which runs the Kenya-Uganda Railway. The port serves both Kenya and countries of the interior, linking them to the ocean. The city is served by Moi International Airport located in the northwest mainland suburb of Chaani. Large quantities of goods are cleaned from Mombasa port then enter into various big cities in Kenya as well as its neighbouring countries. Therefore, Mombasa is an important entrance of East Africa.

Kenya's services sector, which contributes 61% of GDP, is dominated by tourism, which benefits mostly from its pleasant climate—it's like spring all the year round in various tourism places. The tourism sector has exhibited steady growth in most years since independence and by the late 1980s had become the country's principal source of foreign exchange. Tourists, the largest number being from Germany and the United Kingdom, are attracted mainly to the coastal beaches and the game reserves, notably, the expansive East and West Tsavo National Park (20,808 square kilometres (8,034 sq mi)) in the southeast. Tourism has seen a substantial revival over the past several years and is the major contributor to the pick-up in the country's economic growth. Tourism is now Kenya's largest foreign exchange earning sector, followed by flowers, tea, and coffee. In 2006 tourism generated US\$803 million, up from US\$699 million the previous year. Presently, there are also numerous Shopping Malls in Kenya. In

addition, there are four main hypermarket chains in Kenya. As a result, Kenya takes advantage both in location and climate, which becomes one of the most important forces to drive forward its economy. These two factors also serves as the strong point to bring about overseas investment.

#### **4.5 The firm strategy of Kenya state energy agencies**

As we can see, firm strategy, structure and rivalry constitute one of the important determinants of competitiveness with reference to Michael Porter's Diamond Model. This section reviews the analysis we made in the former chapters about the organizing structure of power sector in Kenya and have a clear idea about their strategy in the power sector. MoE plays the core role to control the operation of power sector, ERC for coordination and regulation, KenGen for power generation, KPLC for power distribution and sales and Ketraco for power transmission, which we can observe from Figure 4.1. Therefore, each sector made related strategy to secure their roles.

**KenGen:** To efficiently generate competitively priced electric energy using state of the art technology, skilled and motivated human resource to ensure financial success. We shall achieve market leadership by undertaking least cost, environmentally friendly capacity expansion. And core values of KenGen: Integrity; Skills & Motivation; Professionalism; Team Spirit; Qualified/Trained Staff; Safety Culture.

**KPLC:** The Company's key mandate is to plan for sufficient electricity generation and transmission capacity to meet demand; building and maintaining the power distribution and transmission network and retailing of electricity to its customers.

Mission: Powering people for better lives. Vision: To provide world-class power that delights our customers. Core Values: Customer First; One Team; Passion; Integrity; Excellence. Quality Policy: We are committed to providing high quality customer service by efficiently transmitting and distributing high quality electricity that is safe, adequate and reliable at cost effective tariffs. The Board, Management and staff of Kenya Power are committed to effective implementation and continual improvement of the Quality Management System that complies with the requirements of ISO 9001:2008 in order to consistently meet its customers and other stakeholder's requirements and expectations.

KETRACO: Its vision is “to be a world-class electricity transmission company and the leading inter-connector in Africa”. Its mission is “To build and operate a national electricity transmission network that is reliable, efficient, effective, safe and environment-friendly through innovative and best practices; and to promote regional power trade for socio-economic development”. Core Values: Customer Focus; Integrity, Transparency and Accountability; Teamwork; Creativity and Innovation; Commitment; Equity and Professionalism. Its mandate is to design, construct, operate and maintain new high voltage electricity transmission infrastructure that will form the backbone of the National Transmission Grid.

The firm strategy of Kenya state energy agencies is not only for the competence among the same industry in domestic market, but also for the competence from international rivals. As in Kenya power sector, their rivals are from the neighbouring

countries such as Tanzania, Uganda, Rwanda, Burundi etc. When we check these energy agencies, all of their strategies aim at both domestic market and international market. Next let us focus the question result collected.

As to the question on the organization power development plan, all of the interviewees have a positive answer. They also confirm the importance of firm strategy. Some even show the fast moving step of firm development under the instruction of the firm strategy.

On the comment of 5000 MW+ Plan, all of the interviewees agreed with the plan, which have had positive effect on whole industry and will still push forward the state economic development. Meanwhile, some experts pointed out, the 5000 MW+ maybe a little bit of ambitious than its normal capacity because it took over 50 years to reach to the current install power capacity of 1600MW, therefore, it should be very difficult to increase more than 5000 MW within 3 years.

#### **4.6 The Eastern Africa Power Pool (EAPP)**

As we mentioned in the beginning of the study, the Eastern Africa Power Pool (EAPP) was established in 2005 with the signing of an IGMOU by seven Eastern Africa countries: Burundi, DRC, Egypt, Ethiopia, Kenya, Rwanda and Sudan.

Main objective is the optimum development of energy resources in the region and to ease the access to electricity power supply to all people of the countries in the Eastern Africa Region through the regional power interconnections.

Goals of EAPP is to be a framework for pooling energy resources, promoting power

exchanges between utilities in Eastern Africa and reduce power supply costs based on an integrated master plan and pre-established rules (Grid code). Optimize the usage of energy resources available in the Region by working out regional investment schemes in Power Generation, Transmission and Distribution. Reduce electricity cost in the Region by using power systems interconnection and increasing power exchanges between countries. Provide efficient co-ordination between various initiatives taken in the fields of power production, transmission as well as exchanges in the Region.

Key Issues of EAPP: Infrastructure including decayed roads, slow telecommunication, unsafe airports and lack of oil/gas pipelines; strain on network & high losses; relatively low electrification; missing or not updated data. Sponsoring Agencies are from UNECA, AU, UPDEA and COMESA.

Main Projects & Financiers include: Regional Master Plan & Grid Code Study, funded by African Union (NEPAD - IPF); Technical Assistance and Capacity Building funded by EU; Technical Assistance of Operation; Coordination Centre & Independent and Regulatory Body (Norwegian Government). Main Projects & Consultants include: Consortium of SNC Lavalin (Canada) and Parsons Brinckerhoff (UK) for Regional Master Plan & Grid Code Study; Mercados - Energy Market International for Technical Assistance and Capacity Building Study promoting efficient and sustainable energy markets, designing effective regulation.

There are challenges which include infrastructure bonds of decayed roads, slow telecommunication and unsafe airports and railway services; regulations of cross

border treaty; lack of funding and political instability. However, the East African region has no shortage of resources to generate electricity and has an environment that is attractive for financiers to help the region sustainable development.

When asked about idea on EAPP (The Eastern Africa Power Pool) Plan, all of the interviewees have positive attitude. They considered EAPP as an effective power storage and power re-distribution system, which enables the power to be stored when there is surplus in the supply and be output when there is any demand, thus the power system will be distributed in a balanced status. However, it needs long distance and stable transmission line, which has to increase the cost for power transmission system.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary gathered from the analysis of the data, as well as the conclusions reached. The chapter incorporates the various suggestions given by the respondents in the interview. Findings have been summarized alongside the objectives of the study, conclusions have been drawn from the study and the recommendations for action are also given.

#### **5.2 Summary of the Findings**

This study selected the power development strategy in the international business expansion of Kenya as the main topic and sought to find the strategies adopted by the GoK and other power sectors to absorb FDI under globalization background. The findings includes following points: challenges faced by the GoK to absorb FDI; strategies adopted by the GoK; International business environment etc.

The study cited Vision 2030 proposed by the GoK, which intends to boom the economy in about twenty years as well as improve the people's life. Kenya does not take advantage in natural resources, however, it successfully attracted more FDI than the neighbouring countries with the application of location advantage, international business strategy etc.

The study found that the GoK made relatively attractive policies to absorb FDI, such as Foreign Investments Protection Act was made in 1964, which covers Farming and



Animal Husbandry, Tourism, Infrastructure, Transportation, Power, Water Resource, Manufacturing, Training and Financing etc. Various encouragement policies were made for the promotion of investment such as investment allowance, depreciation, exemption of custom duty etc. These policies played an important role in the process to encourage foreign investors to invest in Kenya.

The study also found that the up-dated power contracting models were prevailing in Kenya engineering market, such as PPP model and BOT model, which were of great help in absorbing FDI as to the power construction projects. PPP enables the organizations to have concession to the power projects; meanwhile, the government also has the ownership of the projects. These two forces were added to push forward the progress of the projects in a fast speed. As to BOT model, the ownership was transferred to the private organizations to run the project, which need to be returned to the government when the concession period was expired. Both PPP model and BOT model were helpful to bring about overseas finding.

On the location advantage and climate attraction, the study discussed that Kenya was located in the eastern coast of Indian Ocean, as the main entrance of Eastern Africa with the control of goods and logistics of Eastern Africa countries and other Middle Africa countries. Large amount of goods and logistics also brought about cash flow and investment. The comfort climate in Kenya enabled itself to be the place of interest for tourists. The visitors from multiple countries and regions brought about lots of investment and push forward the consumption as well. With the effort from the GoK,

Kenya tourism made rapid progress in recent years with the simplification of visa, construction of many tourism spots, addition of several straight airlines and award of multiple acts to protect the environment.

As to the firm strategy, the study found all state power agencies adopted positive firm strategies in the power development process. The study made analysis from the factors of firm structure, rivalry, related supporting industries, infrastructure and government with reference of Michael Porter's Diamond Model. These factors had large impact on the business operation of the state power firms. The firm strategy of Kenya state energy agencies was applied both in domestic market and international market. International business environment also played a very important role.

Last section made analysis on EAPP, the Eastern Africa Power Pool, which enabled remaining power to be stored in the inter-connected grid and be transferred to other nations or regions in need then keep the whole system in balance. The Eastern Africa Power Pool, is actually not limited within Eastern Africa, but extends to the country beyond this region such as DRC. Therefore, EAPP was expanding its effect as a result of globalization, which brought about benefit to whole system.

### **5.3 Conclusions**

With enough supporting data collected from the state energy agencies and careful research based on the solid facts, the study made conclusions that globalization is the key progress to boom the power industry in Kenya. The GoK have made excellent international business practice with the reference of globalization strategy.

Globalization is a double edged sword, with both opportunities and challenges. When Kenya is confronted with globalization, it took advantage of location, climate, project contracting models etc. and defeated other opponents with a successful practice of international business to absorb enough overseas finding. As the foundation of other industries, the power sector gained tremendous development to provide enough force for whole national economy. One of the beneficiaries is the 5000 MW+ Plan made by the MoE, many power plants are under construction, which will supply endless power to all industries.

Globalization is a must in Kenya based on the classical theories, which also led to the successful practice. Both the theories and practice supported the study with enough data collected from state power agencies in Kenya. More and more people will benefit from this successful practice of the GoK with the model being copied and referred by other nations and regions.

#### **5.4 Limitation of the Study**

The study was taken in the initiation of 5000MW+ Plan, which cannot gain all data of the full stage of Kenya power development process. Thus, the data collected cannot show the full image of the development of Kenya power sector. As to the power development in Kenya, it is still lack of the economic and social development. Therefore, the data collected cannot indicate the actual development stage of the society accordingly.

Another factor is that, as we have discussed before, Kenya is lack of finding for

infrastructure such as power generation. Power investment is still lack of the demand of whole power industry. The debt has reached to the top limit of the GoK with higher demand of overseas investment. This bottleneck has restricted the progress of various power projects. The result of study is also affected accordingly.

### **5.5 Recommendations for Further Study**

As the foundation of infrastructure, the power sector weighs heavily in booming the society. Modification and improvement are necessary for the study. Following three points maybe helpful for further study:

The interviewees of current study are limited within the senior management team of the state power agencies and the MoE. The scope can be broadened to gain more effective data with the interviewee coverage being expanded to medium or lower level employees from the power sector.

The study only focused on domestic market without concerning with competitors from neighbouring countries. Analysis on the international competitors should be of more help to the GoK when they are making related policies. The neighbouring power giants such as TANESCO, UEGCL, EEPKO even ESKOM can be included into the study which shall enable us to inspect this issue with a global perspective.

As one of the most important parties, the investors are of great help for power project construction as well as the contractors. Therefore, it will give the readers with full image of the power industry if the research covers the investors and the contractors.

The respondents from the investors and the contractors can reflect the true process of

investment and contracting stage and should be helpful for the GoK to attract more finding if further study can cover this issue.

## REFERENCES

- Abou-bakr, A. (2013). *Managing Disasters Through Public-Private Partnerships*. Washington: Georgetown University Press.
- Ansoff, H. I. & Mcdonell E. (1990). *Successfully Implementing Strategic Management* (2<sup>nd</sup> Ed.). New Jersey: Pearson Prentice Hall.
- Burnett, M. (2007). *PPP - A decision maker's guide*. Maastricht: European Institute of Public Administration.
- Chandler, A. D. and Daems, H. (Eds.) (1980). *Managerial Hierarchies: Comparative Perspectives on the Rise of the Modern Industrial Enterprise*, Cambridge, MA: Harvard University Press
- Cole, G. A. (1996). *Management: Theory and Practice. Lexington Avenue*. New York: McGraw Hill.
- Deresky, H. (2008). *International Management: Managing across Borders and Culture* (6<sup>th</sup> Ed.). New Jersey: Pearson Prentice Hall.
- Eng. Joseph K. Njoroge, MoE & P. (2013). *Ministry Projects*. Retrieved from <http://www.energy.go.ke/Projects.html>.
- Feenstra, Robert C. (2004). *Advanced International Trade: Theory and Evidence*. Princeton: Princeton University Press.

Giddens, Anthony. (1999). *Runaway World: How Globalization is Reshaping Our Lives*. London: Routledge.

Giddens, Anthony. (2014). *Turbulent and Mighty Continent: What Future for Europe?*. Cambridge: Polity Press.

Held, David, McGrew, Anthony, Goldblatt, David, and Perraton, Jonathan (1999). *Global Transformations: Politics, Economics and Culture*. Stanford: Stanford University Press.

John, D. Daniels, Lee H. Radebaugh, & Daniel P. Sullivan. (2013). *International Business Environments & Operations*. (14<sup>th</sup> Ed.). New Jersey: Pearson Education, Inc.

Johansson, J. (2000). *Global Marketing: Foreign Entry, Local Marketing & Global Management* (2<sup>nd</sup> Ed.). Irwin: McGraw Hill.

Keith C. Brown, Frank K. Reilly. (2009). *Analysis of Investments and Management of Portfolios* (9<sup>th</sup> Ed.). Washington: Cengage Learning.

Kothari, C, R. (2004). *Research Methodology: Methods and Techniques*. New Delhi: Wiley.

McLuhan, Marshall (1964): *Understanding Media: The Extensions of Man*, New York: McGraw Hill.

Michael E. Porter. (1998). *Competitive Advantage: Creating and Sustaining Superior*

*Performance*. New York: Free Press.

Michael E. Porter. (2008). *On Competition*. Boston, MA: Harvard Business School Press.

Michael E. Porter. (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Mintzberg, H., & Quinn J.B. (1991). *The Strategy Process: Concepts, Contexts, Cases, Englewood Cliffs*. New Jersey: Prentice-Hall.

Moore, Karl, & David C. L. (2009). *Origins of Globalization*. New York: Routledge.

Osterhammel, Jürgen, Niels P. Petersson. (2005). *Globalization: A Short History*. Princeton: Princeton University Press.

Peter, J. B., & Pervez, N. G. (1999). *The Internationalization of the Firm*. London: Cengage Learning EMEA.

Ricky, W. G., & Michael W. P. (1996). *International Business* (6<sup>th</sup> Ed.). Irwin: McGraw Hill.

Robert, C. (1994). *Modern Business Administration*. China: Pearson Education.

Roberts, Paul Craig. (2003). *The Trade Question*. Washington: Washington Times.

Robert J. Carbaugh. (2013). *International Economics* (14<sup>th</sup> Ed.). Washington: Cengage Learning.



Samuel P. Huntington. (2002). *The Clash of Civilizations and the Remaking of World*

*Order*. London: The Free Press.

Teece, D. J. (2010). Business Model, Business Strategy and Innovation. Long Range

Planning.

Yin, Robert K. (1994). *Case Study Research: Design and Methods (2<sup>nd</sup> ed.)*. Thousand

Oaks, CA: Sage Publishing.

Yin, Robert K. (2003). *Case Study Research: Design and Methods (3<sup>rd</sup> ed.)*. Thousand

Oaks, CA: Sage Publishing.

Zikmund, Babin, Carr, Griffin. (2010). *Business Research Methods*. Canada: Cengage

Learning.

## APPENDICES

### APPENDICES I: QUESTIONNAIRE

This interview has been designed to collect data from interviewees of power sector in Kenya on the theme “Contribution by State Energy Corporations in Kenya to International Business”. Data collected is exclusively for academic purposes only.

#### Interview Questions:

##### Section A: General Questions

1. How long have you been in this organization? .....
2. How long have you been in this position? .....
3. How do you like your organization?  
.....
4. Does your organization have a power development plan? .....

##### Section B: Specific Questions—Power development

5. How do you like the current situation of power industry in Kenya?  
.....
6. Which problem do you think is the most urgent to be solved as to the power development?  
.....
7. Which type of power source do you prefer to use as the main force and why?  
.....
8. How do you like the 5000 MW+ plan of MoE & P?  
.....
9. How do like the electricity price in Kenya?  
.....
10. What’s your comment on power generation in Kenya?  
.....

11. What's your comment on power supply in Kenya?

.....

12. What's your comment on power gridding in Kenya?

.....

13. How do you think to solve the power supply contradiction between city and rural areas?

.....

14. What's your comment on power transmission in Kenya?

.....

15. What's your comment on the power coverage in Kenya?

.....

16. What's your idea about the relations among power generation, power gridding and power transmission?

.....

17. Enough coal mining reserve were explored in Kenya, but they are not used for power generation. What's your comment?

.....

**Section C: Specific Questions—International Business**

18. How do you like EAPP (The Eastern Africa Power Pool) Plan?

.....

19. Which type of power project contracting model (EPC, BOT, BOO & PPP) do you prefer to be applied in Kenya?

.....

20. Which factor is more important to be imported to Kenya regarding the power generation: technology or fundraising?

.....

**Thank you for your time!**

## APPENDIX II: LETTERS FROM POWER RELATED SECTORS

Letter from CEPSI 2014 ---- Abstract Review Results

June 10, 2014

Dear YUWEI CHEN

It is a great pleasure to inform you that your abstract, "**Geothermal Power Contributes to the Sustainable Development of Kenya**" has been accepted for presentation at **CEPSI 2014** to be held in JEJU, Korea from 26-30 October 2014.

It would be very appreciated if you could give us some feedback on the following no later than

16 Jun 2014

√ When do you intend to submit your full paper?

√ Would you like your paper to be presented orally or on poster?

※ Regardless of your preference, the type of presentation may change due to space limitations.

Again, congratulations on your acceptance, and if you have any further inquiries, please contact the CEPSI 2014 Organizing Committee.

Sincerely,

Review Panel for 2013-2014 AESIEAP Organizing Committee

Letter from KIA: Schedule for the Visit to Related Energy Parastatals



KENYA INVESTMENT AUTHORITY

SCHEDULE FOR MR VICTOR CHEN VISIT TO ENERGY PARASTATALS FROM 6<sup>TH</sup> – 8<sup>TH</sup> AUGUST, 2013

Day/Date	Company	Contact Person	Location	Telephone	Remarks
Tuesday, 6 <sup>th</sup> May, 2013	Kenya Investment Authority	Mr. Walter Macharia – Manager, Projects	Kenya railways Headquarters Block D	2221401-4	<b>Confirmed for 9.00AM</b>
	Geothermal Development Company Ltd.	Dr. Silas M. Simiyu, MBS - Managing Director & CEO	Taj Tower 9th Floor Upper Hill, Nairobi	0719 036 000 0719 715 777	<b>Confirmed for 11.00 AM</b>
	Energy Regulatory Commission	Eng. Kaburu Mwirichia - Director General	Eagle Africa Centre - Upper Hill	020-2717627/3175; 020-2847000/200	<b>Confirmed for 2:30 PM</b>
Wednesday, 7 <sup>th</sup> August, 2013	Kenya Electricity Generating Company (KenGen)	Mr Simon Ngure - Ag. Managing Director & CEO	Stima Plaza, Phase III Kolobot Road, Parklands	0711-036000, 0732-116000	<b>Confirmed for 9.00 AM</b>
	Kenya Power	Dr Ben Chumo - Managing Director & CEO	Stima Plaza, Kolobot Road, Parklands	0703 070707 0732 170170	Tentative for 11.00 AM
Wednesday, 7 <sup>th</sup> August, 2013	Kenya Electricity Transmission Company (KETRACO)	Eng. Joel Kiilu – Managing Director & CEO	2nd Floor Capitol Hill Square, Upper Hill	0719 018000 0732 128000	<b>Confirmed for 2:30 PM</b>
Thursday 8 <sup>th</sup> August, 2013	Ministry of Energy and Petroleum	Eng. Joseph K. Njoroge – Principal Secretary	Nyayo House 23rd floor, Kenyatta Avenue Nairobi	020 310112 0726 993 292	<b>Confirmed for 8.30 AM</b>

Letter from MoE: Appointment for the Meeting with the Principal Secretary

Telegrams: "MINPOWER"  
Telephone: +254-20-310112  
Fax: +254-20-240910  
Telex: 23094 MINERGY  
When replying please quote



MINISTRY OF ENERGY  
AND PETROLEUM  
NYAYO HOUSE  
P. O. Box 30582-00100  
NAIROBI

Ref. ME/1/1/8

25<sup>TH</sup> JULY, 2013

**Dr. Moses Ikiara, MBS**  
Managing Director  
Kenya Investment Authority  
P.O. Box 55704 – 00200  
**NAIROBI**

Dear *MD,*

**RE: APPOINTMENT FOR MR. VICTOR CHEN TO MEET THE  
PRINCIPAL SECRETARY**

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Reference is made to your letter dated 22nd July, 2013 with regard to the above captioned subject.

This is to inform you that Eng. Joseph K. Njoroge, Principal Secretary of this Ministry has agreed to meet Mr. Victor Chen from China Huadian Corporation (CHC) on Thursday 8<sup>th</sup> August, 2013 at 8.30 a.m. at his office on 23<sup>rd</sup> Floor, Nyayo House.

Yours *Sincerely,*  
*J.M. Omengo*

**JOHN M. OMENGE**  
**(Chief Geologist)**  
**For: PRINCIPAL SECRETARY**

Copy to: **Eng. Richard Muiru**  
Chief Engineer Electrical  
Ministry of Energy & Petroleum  
Nyayo House  
**NAIROBI**

Letter from KETRACO: Appointment for the Meeting with KETRACO



## KENYA ELECTRICITY TRANSMISSION CO. LTD.

2nd Floor • Capitol Hill Square • Chyulu Rd • Upper Hill

P. O. Box 34942 - 00100, NAIROBI

Phone: +254 20 4956000

Cell: +254 719018000

Cell: +254 732128000

Our Ref: KET/4/3/6/JM/rnk

24<sup>th</sup> July, 2013

**Mr. Mwalimu Musee**  
Kenya Investment Authority  
Kenya Railways Headquarters  
P. O. Box 55704 - 00200  
**NAIROBI**

Dear *Sir,*

**RE REQUEST FOR AN APPOINTMENT**

We are in receipt of your letter dated 22<sup>nd</sup> July 2013 on the above.

I will be available for the appointment on the **7<sup>th</sup> of August, 2013 at 2.30pm** at our offices.

Yours *Sincerely,*

**DR. (ENG.) JOHN MATIVO**  
**HEAD OF TECHNICAL SERVICES**

Table 1.1: 5000 MW+ Plan of Kenya

NEW CAPACITY ADDITIONS (MW)								
TIME IN MONTHS	6	12	18	24	30	36	40	TOTAL
HYDRO	24	0	0	0	0	0	0	24
THERMAL	87	163	0	0	0	0	0	250
GEOHERMAL	90	176	190	50	205	150	785	1646
WIND	0	0	20	60	300	250	0	630
COAL	0	0	0	0	960	0	960	1920
LNG	0	0	0	700	350	0	0	1050
CO-GENERATION	0	0	18	0	0	0	0	18
<b>TOTAL</b>	<b>201</b>	<b>339</b>	<b>228</b>	<b>810</b>	<b>1815</b>	<b>400</b>	<b>1745</b>	<b>5538</b>

CUMULATIVE CAPACITY (MW)								
TIME IN MONTHS	0	6	12	18	24	30	36	40
HYDRO	770	794	794	794	794	794	794	794
THERMAL	622	709	782	782	782	432	432	432
GEOHERMAL	241	331	507	697	747	952	1102	1887
WIND	5	5	5	25	85	385	635	635
COAL	0	0	0	0	0	960	960	1920
LNG	0	0	0	0	700	1050	1050	1050
CO-GENERATION	26	26	26	44	44	44	44	44
RETIREMENTS		90				350		
<b>CUMMULATIVE TOTAL</b>	<b>1664</b>	<b>1775</b>	<b>2114</b>	<b>2342</b>	<b>3152</b>	<b>4617</b>	<b>5017</b>	<b>6762</b>
Generation Tariff (US\$cts/kWh)	11.3	10.14	9.93	8.74	8.07	7.38	7.58	7.41
Industrial/Commercial Tariff (US\$cts/kWh)	14.14	12.77	12.49	11.03	10.08	9.03	9.32	9
Domestic Tariff Progression (US\$cts/kWh)	19.78	18.3	17.73	15.85	13.46	11.14	11.19	10.43



Figure 4.1: Organizing Structure of Kenya's Power Sector

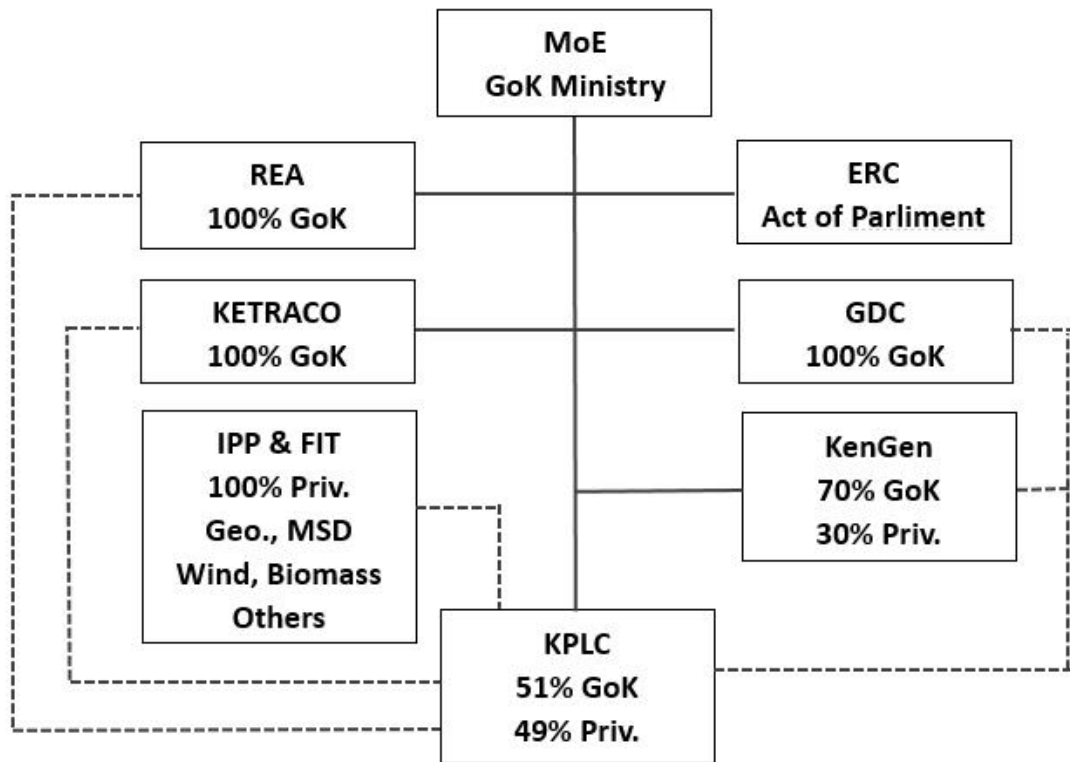


Figure 4.2: Power Generation Schedule and Tariffs Chart from 2013—2016

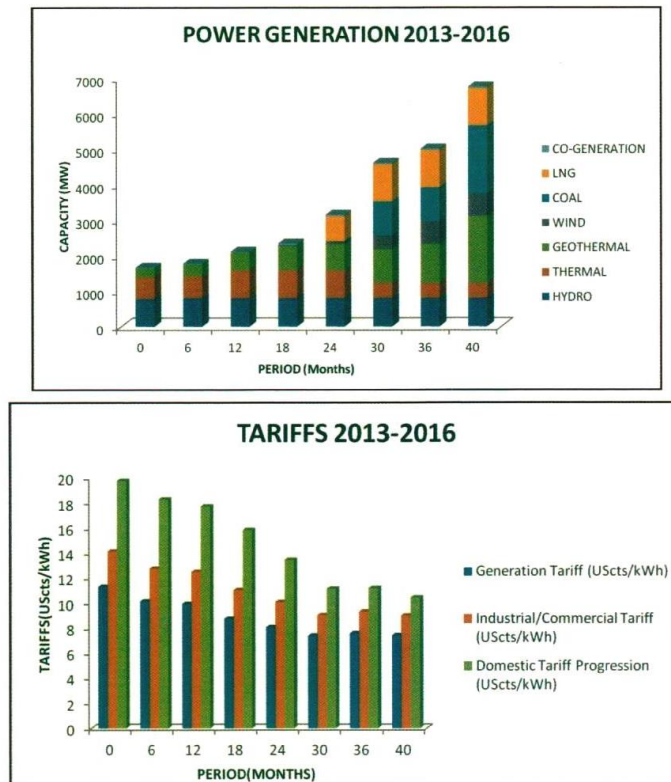


Figure 4.3: BOT Model Structure

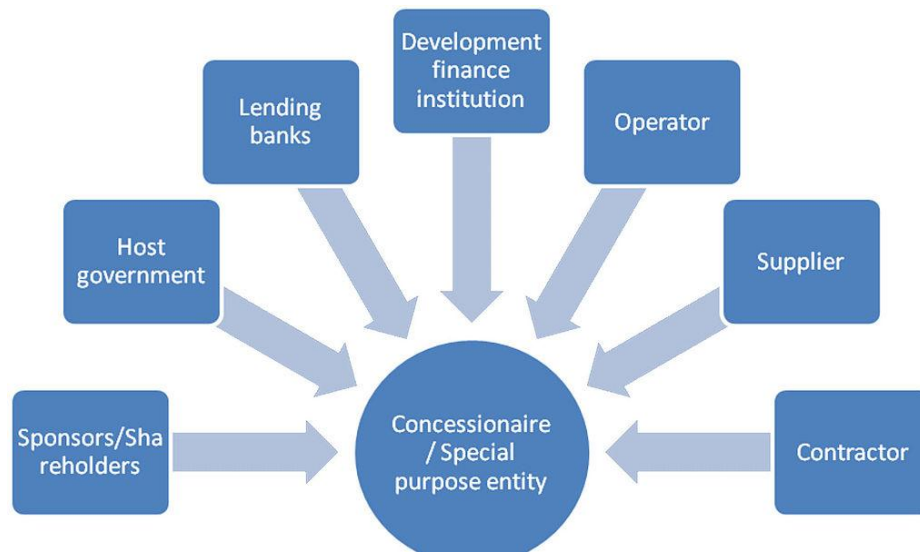


Figure 4.4: Michael Porter's Diamond Model

