

Towards Sudan Investment Map

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ABSTRACT

This paper aims to identify the toward of the Sudan investment map, and accordingly the concept of investment, investment map and investment in Sudan has been identified.

In order to obtain an investment map for Sudan, it is necessary to pass through five phase these are inception modelling, conceptual modelling, logic modelling, physical modelling and representation modelling.

The general framework for obtaining the investment map for Sudan and the mold to be put in it has been reached.

Keywords: Sudan, Investment, Investment Map, Inception Modelling, Conceptual Modelling, Logic Modelling, Physical Modelling, Representation Modelling

1. INTRODUCTION

The Republic of the Sudan (Figure 1) it is located in the north-east of the African continent, bordered to the north by Egypt, from south by South Sudan, from the east by Eritrea and Ethiopia, and from the West by Central African Republic and Chad. The area of Sudan is approximately about 1882000 km². Sudan lies between longitudes 39°26'51".025 and 21°05'49".021 E and latitudes 23°42'15".172 and 08°07'47".419 N. The country has a distinctive geographical location and it is rich with the many of resources includes agriculture, oil and gas, electricity, transportation, industry and minerals, tourism and other, Making it a distinct investment front.



Figure 1: Sudan Location Map

The Republic of Sudan consists of 18 states that are Khartoum, Northern, River Nile, Al Jazirah, Sennar, White Nile, Blue Nile, Central Darfur, East Darfur, North Darfur, South Darfur, West Darfur, Kassala, Red Sea, Al Qadarif, North Kurdufan, South Kordofan and West Kurdufan state, Khartoum state is the capital city [12].

Khartoum State the smallest state by area is the most populous state. It contains the country's largest city by population, Omdurman, Khartoum North and the city of Khartoum, which is the capital of the state as well as the national capital of the Republic of Sudan. The capital city contains offices of the state, governmental and non-governmental organizations, cultural institutions, and the main airport. The city is located in the heart of Sudan at the confluence of the White Nile and the Blue Nile, where the two rivers unite to form the River Nile. The confluence of the two rivers creates a unique effect. As they join, each river retains its own color: the White Nile with its bright whiteness and the Blue Nile with its alluvial brown color. These colors are more visible in the flood season. The state lies between longitudes 31.5 to 34 °E and latitudes 15 to 16 °N. It is surrounded by River Nile State in the north-east, in the north-west by the Northern State, in the east and southeast by the states of Kassala, Gedaref and Gezira, and in the west by North Kurdufan.

The currency of the Republic of Sudan is the Sudanese Pound (SDG). As well, the people of the country are referred to as Sudanese. The dialing code for the country is 249 and the top level internet domain for Sudanese sites is .sd. The predominant religion in Republic of Sudan is Islam and the official language is Arabic.

Sudan's main exports include gold, oil and petroleum products, cotton, sesame, livestock, groundnuts, gum arabic and sugar. Principal imports include foodstuffs, manufactured goods, refinery and transport equipment, medicines and chemicals, textiles and wheat. Under the Exporters and Importers Registration Act, 2008 no person may engage in export or import business unless registered in the Exporters and Importers Register and obtains a certificate of such registration [1].

2. THE INVESTMENT

Investment is an activity that is engaged in by people who have savings, i.e. investments are made from savings, or in other words, people invest their savings but all savers are not investor's. Investment is an activity which is different

from saving. It may mean many things to many persons. If one person has advanced some money to another, he may consider his loan as an investment. He expect to get back the money along with interest at a future date. Another person may have purchased on kilogram of gold for the purpose of price appreciation and may consider it as an investment. In all these cases it can be seen that investment involves employment of funds with the main aim of achieving additional income or growth in the values. The essential quality of an investment is that it involves something for reward. Investment involves the commitment of resources which have been saved in the hope that some benefits will accrue in future [4].

Thus investment may be defined as “a commitment of funds made in the expectation of some positive rate of return “since the return is expected to realize in future, there is a possibility that the return actually realized is lower than the return expected to be realized. This possibility of variation in the actual return is known as investment risk. Thus every investment involves return and risk. Amling defines investment as “purchase of financial assets that produces a yield that is proportionate to the risk assumed over some future investment period.” According to sharpe, “investment is sacrifice of certain present value for some uncertain future values”.

In economics, investment means creation of capital or goods capable of producing other goods or services. In finance, an investment is a monetary asset purchased with the idea that the asset will provide income in the future or appreciate and be sold at a higher price. Investment is crucial for economic growth. High rates of investment in the present make possible future consumer spending. One of the economic problems of developing countries is that they do not have enough domestic savings to be directed to investment. They are in constant need of foreign investment as well as they need to encourage domestic investment. The investment Acts (Laws) are generally designed to encourage local investment as well as attracting Foreign Investment (FI) through privileges and facilities [5].

Investment environment can be defined as the existing investment vehicles in the market available for investor and the places for transactions with these investment vehicles. Investment management process is the process of managing money or funds. The investment management process describes how an investor should go about making decisions [3].

For example, the investment in the land side, Land and property transactions play significant roles in governments' revenues and financial institutions' banking policies, which is particularly the case for the developing countries with rapid urbanization and heavy reliance on land-based finance. Land is a special kind of commodity, which cannot be moved from place to place. Before making judicious decisions to purchase or rent, investors and property brokers should carry out an analysis of the land market. On-the-spot gathering of the information about the basic condition of parcels, such as their price and location, is often costly. Such transaction costs are indeed information costs and a fundamental impediment to land mobility. Hence, there are great demands for land price information supply and deep processing. However, it is not an easy task to satisfy these demands by traditional information presentation means

because land price is a kind of special geographical information which varies both spatially and temporally [8].

3. INVESTMENT DECISION PROCESS

Investing has been an activity confined to the rich and business class in the past. But today, we find that investment has become a house hold word and is very popular with people from all walks of life .India appears to be slowly but surely closing in some of the top savers among countries in the global peaking order. savings in Indians touched a new high of 31percent of the Gross Domestic Product (GDP) during 2011-2012.chain leads the pack of savers with the saving figure at close to 49 percent of GDP followed by other emerging market economies like Bangladesh 36 percent, Bhutan 48 percent of their GDP. The escalating cost due to ,inflation are decreasing the value of saved money with each passing year .consider the cost buying a home ,of getting admitted in a hospital or paying for the higher education of a child. One's life's savings could vanish in a blink. Knowledgeable investing requires the investing to be aware of his needs the amount of money he can invest and the investment options available to him. These will relate to the investment decision process [4].

A typical investment decision goes through a five step procedure which is known as investment process these steps are: defining the investment objective, analyzing securities, construct a portfolio, evaluate the performance of portfolio and review the portfolio.

3.1 Defining the Investment Objective

Investment objective may vary from person to person. It should be stated in terms of both risk and return . In other words, the objective of an investor is to make money accepting the fact of risks that likely to happen. The typical objectives of investor include the current income, capital appreciation, and safety of principal. More over constrains arising due to liquidity, the time horizon, tax and other special circumstances, if any must also be considered this steps of investment process also identifies the potential financial assets that may be included in the portfolio based on the investment objectives.

3.2 Analyzing Securities

The second steps of analyzing securities enable the investor to distinguish between underpriced and overpriced stock. Return can be maximized by investing in stocks which are currently underpriced but have the potential to increase. It might be useful to remember the golden principle of investment; buy low sell high. There are two approaches used for analyzing securities; technical analysis and fundamental analysis.

3.3 Construct a Portfolio

The actual construction of portfolio, which can be divided into three sub parts:

1. How to allocate the portfolio across different asset classes such as equities, fixed income securities and real assets.
2. The assets selection decision, this is the step where the stocks make up the equity component, the bonds that make up the fixed income component.
3. The final component is execution, where the portfolio is actually put together, where investors have to trade off transaction cost against transaction speed.

3.4 Evaluate the Performance of Portfolio

The performance evaluation of the portfolio done on the terms of risk and return. Evaluation measures are to be developed. Compounded Annual Growth Rate (CAGR) may be one criteria. Hindustan unilever gave a CAGR of 21 percent in returns to the shareholders for the last 13 years.

3.5 Review the Portfolio

It involves the periodic repetition of the above steps. The investment objective of an investor may change overtime and the current portfolio may no longer be optimal for him. so the investor may form a new portfolio by selling certain securities and purchasing others that are not held in the current portfolio.

4. INVESTMENT MAP

People have used maps for centuries to represent their environment. Maps are used to show locations, distances, directions and the size of areas. Maps also display geographic relationships, differences, clusters and patterns. Maps are used for navigation, exploration, illustration and communication in the public and private sectors. Nearly every area of scientific enquiry uses maps in some form or another. Maps, in short, are an indispensable tool for many aspects of professional and academic work. Cartography has been affected by the information revolution somewhat later than other fields. Early computers were good at storing numbers and text. Maps, in contrast, are complex, and digital mapping requires large data storage capacity and fast computing resources. Furthermore, mapping is fundamentally a graphical application, and early computers had limited graphical output capabilities. The earliest mapping applications implemented on computers in the 1960s did not therefore find wide application beyond a few government and academic projects [7].

Investment map is produced by the International Trade Centre and the United Nations Conference on Trade and Development in partnership with the World Association of Investment Promotion Agencies and the Multilateral Investment Guarantee Agency, part of the World Bank Group. Investment map aims to assist investment promotion agencies in defining priority sectors for investment promotion, identifying potential investors in a given sector, identifying competitor countries for inward investment, and defining opportunities for bilateral investment.

Investment map combines statistics on Foreign Direct Investment (FDI) and international trade, tariff data and activities of multinational firms. The tariff data includes tariffs as well as multilateral, regional and bilateral preferences and covers ad valorem equivalents of specific tariffs, tariff quotas and anti-dumping duties. Tariff and trade data are available for merchandise goods (not services) at the 6-digit level of the Harmonised System for about 5,000 product items. Information on foreign direct investment is available on goods and services for up to 150 sectors.

The main strength of investment map is the combination of different data (international trade, foreign direct investment, tariff and foreign affiliated companies) into an easy to use, interactive Internet tool that allows analysis by country, trading partner and sector. Investment map includes information, on the location, sales, employment and parent company, for around 60,000 foreign affiliates located in developing countries and economies in transition [9].

5. INVESTMENT MAP PROCESS

Process mapping is also known as process charting or flow charting. It is one of the oldest, simplest and most valuable techniques for streamlining work. It is also subtle and requires experienced facilitators for best results. A process map visually depicts the sequence of events to build a product or produce an outcome. It may include additional information such as cycle time, inventory, and equipment information [11].

A map process is essentially a breakdown of a process to determine how it flows and, ultimately, how effective it is. Those who complete process mapping look closely at elements such as the structure of a system and the flow of communication within the system. For example, a company such as a hotel chain might utilize process mapping to see if management interaction with staff is effective or if guests are satisfied with their experience at the hotel. A general definition of process mapping is an analysis of the details of the process to see whether or not it is effective [10].

A strong analytical and interpersonal skills are required to build an accurate model of the new system. Analytical skills enable you to identify a problem, evaluate the key elements, and develop a useful solution. Interpersonal skills are especially valuable to a systems analyst who must work with people at all organizational levels, balance conflicting needs of users, and communicate effectively [2].

Models help users, managers, and information technology professionals understand the design of a system. Modeling involves graphical methods and nontechnical language that represent the system at various stages of development. During requirements modeling, you can use various tools to describe business processes, requirements, and user interaction with the system. Investment map process contain investment map inception, conceptual, logic, physical and representation modelling (Figure 2).

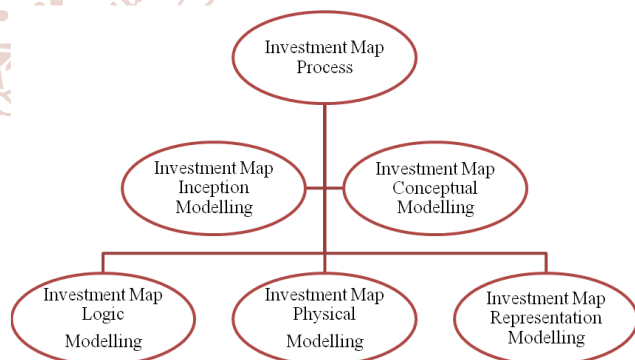


Figure 2: Investment Map Process

6. INVESTMENT IN SUDAN

Foreign direct investment is evident in the country, particularly in the natural resources and agricultural sectors. China, Malaysia and India have invested in the oil sector, and countries including the Gulf States, Turkey, Indonesia and South Africa have made steps to expand their commercial engagement with Sudan. Efforts are being made to foster a more favourable investment climate. The High Council in Investment has been entrusted with the task of establishing mechanisms for coordination among investment related governmental agencies for the sake of simplifying investment procedures and removal of barriers.

Sudan is a member of the Common Market for Eastern and Southern Africa, the Arab League and the Intergovernmental Authority on Development. Sudan is also an observer of the World Trade Organisation. Further, Sudan has bilateral investment agreements with Germany, Netherlands, Switzerland, Egypt, France, Romania, China, Indonesia, Malaysia, Qatar, Iran, Morocco, Oman, Turkey, Yemen, Bahrain, Ethiopia, Jordan, Syrian Arab Republic, United Arab Emirates, Switzerland, Egypt, Libya, Tunisia, Algeria, Kuwait, United Arab Emirates, Lebanon, Chad, Djibouti, India, Vietnam, Bulgaria and Italy. It also has bilateral taxation treaties with Egypt, United Kingdom, Malaysia, South Africa, Turkey and Syria.

The major factors which make Sudan an attractive investment destination are varies. The following section highlight some of these factors.

6.1 Strategic Location of Sudan

1. Sudan's geographic location makes it a natural gateway into Africa from the East and added to this is the fact that it provides the nearest gateway to the sea for a number of its landlocked neighbours (Figure 3). Sudan's location on the Red Sea and the strategic shipping routes coming through the Suez Canal, makes it an ideal location in terms of access to the international markets of the; Middle East, Far East, Asia, Europe, and the United States of America. Sudan also has excellent connections to many of the neighboring countries by air, road, sea, and river transport [6].

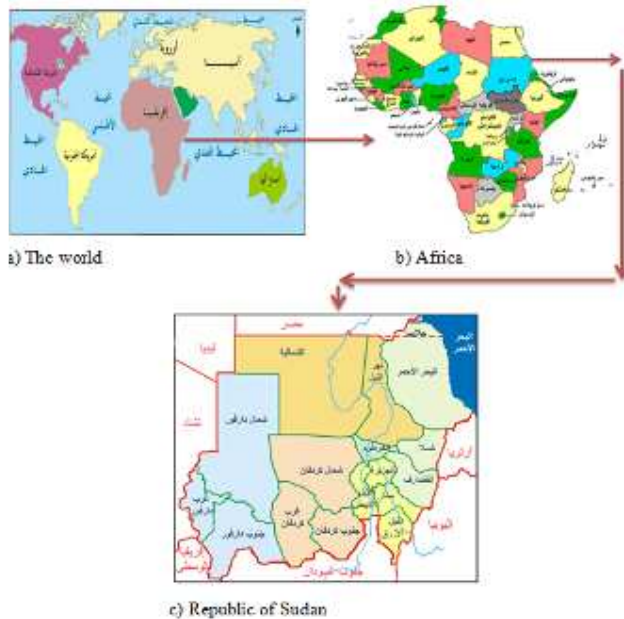


Figure 3: Geographic Location of Sudan

6.2 Rich Natural Resources in Sudan

Sudan has an abundance of natural resources which include large areas of fertile agricultural land, large fresh water resources from its many rivers, rain, and vast underground water deposits. Sudan is rich in mineral resources which include petroleum, gold and other precious metals. Sudan has vast animal resources, forests and grasslands. In addition to all the above; Sudan has a large and skilled vocational and technical workforce ranging from manual labourers through to skilled high level graduates. This together with low labour rates, makes Sudan very attractive in terms of meeting the human resource needs for any investors in the country (Figure 4).



a) Muqrin al-Nilain in Khartoum



b) Tootil and Al Qash in Kassala



c) Al-Dandar Protected



d) Coral Reefs in the Red Sea

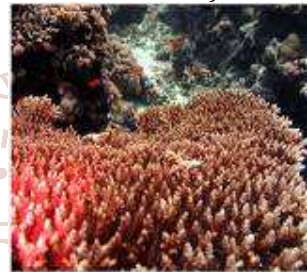


Figure 4: Natural Resources in Sudan

6.3 Infrastructure and Services Facilities in Sudan

The Government of Sudan is committed to developing the country's infrastructure and services provision particularly with reference to; roads, railways, seaports, airports (national and international), telecommunications, electricity generation stations, water purification facilities, sanitation networks and others (Figure 5).

There are many characteristics including:

1. The availability of free trade zones in Suakin and El-Jaili cities providing attractive tax exemptions to investors.
2. The availability of a strong and modern banking and insurance sector, together with auditing, financial, technical and legal consultancy services.
3. The availability of excellent educational and health facilities providing high quality essential services to citizens and expatriates.
4. The availability of a modern and capable construction sector together with an excellent supply of residential.



a) Merowe Dam



b) Sennar Dam



c) Blue Nile Bridge

d) White Nile Bridge



e) Hotel Corinthia



f) Republican Palace

Figure 5: Infrastructure in Sudan

6.4 Stable Political and Legal Environment in Sudan

Officially, the politics of Sudan takes place in the framework of a presidential representative democratic consociation a list republic, where the President of Sudan is head of state, head of government and commander in chief of the Sudanese Armed Forces in a multi-party system. Legislative power is vested in both the government and in the two chambers, the National Assembly (lower) and the Council of States (upper), of the bicameral National Legislature. The judiciary is independent and obtained by the Constitutional Court^[13]. Sudan provides a stable political environment for successful investment. Sudan is also characterized by its independent judicial system which is capable of resolving all conflicts through due legal process for both Sudanese citizens and foreigners.

6.5 Attractive Economic Policies in Sudan

Liberalisation of the economy including the privatization of public corporations ending the State's monopoly of certain production and service sectors. Modernization of laws and regulations designed to attract and encourage inward investment.

Implementing of flexible investment laws which provide all manner of exemptions and concessions including:

1. Complete exemption from customs fees for capital projects.
2. Freedom of capital transfer.
3. Granting of exemptions from profit taxes for up to 5 and ten years for investment projects.
4. Granting of custom exemptions for strategic projects and non-strategic capital goods.
5. Strategic projects are provided with any required investment land free of charge.
6. Non-strategic projects are provided with investment land at favourable prices.
7. The investor has the right to operate without a Sudanese partner.

Investment laws in Sudan provide the following fundamental guarantees:

1. No confiscation of property can occur except through the legal system and after payment of reasonable compensation.
2. The investor has the right to re-transfer their capital in case the project isn't executed or is liquidated.
3. Transfer of profits and costs of finance will be executed in the currency of import and on the date due (after payment of any legal duties).
4. The project is automatically included in the registry of importers and exporters.

However, to promote a positive investment climate; the Sudanese government has established number of regional agreements aimed at encouraging investment and creating trade opportunities with other nations.

The Ministry shall lay down the national investment map, in accordance with the policies and directives of the National Economic Planning Council; provided that the same shall include particular percentages, of the federal projects, in the states, and submit the same, to the Council of Ministers, for approving the same; provided further that the investment map shall include such sector investment maps, as may be prepared by the Federal Ministries and Ministries of Investment in the states.

The following works have been completed from investment map of Sudan so far:

1. Preparing the tender brochure to select a consultant according to the international conditions including the technical and financial conditions.
2. Advertising in the newspapers to choose a consultant.
3. 16 companies submitted to the tender.
4. Seven companies were selected, applied to them the tender conditions.
5. Three companies qualified from the minor list.
6. The tender was awarded to the Red Sea Company and Dalel Tech it is Sudanese foreign company.
7. A contract was signed with the consultant (Red Sea Company) on 19/6/2016.
8. The period of validity of the contract starts from 6/12/2016 the date of receipt of the consultant the first installment 30% of the value of the contract.
9. The period stipulated in the contract to complete the project is one year.
10. The committee formed to prepare the map after the signing of the contract was dissolved and formed three committees:
 - A. Supreme Committee chaired by the minister of state and the membership of the agents of the ministries.
 - B. High Technical Committee headed by the director of financial and administrative affairs.
 - C. Executive Technical Committee chaired by the director of the Map.
11. The Higher Technical Committee held six meetings at the last meeting was agreed that the Red Sea Company would provide the base map and the conditions for selecting the contractor and promised to deliver it on 22/1/2017.

12. It was agreed to receive the base map and conditions of the contractor and work to develop them.
13. The committee has studied the tender brochure for the contractor's selection criteria.
14. A meeting was held with the expert D. Adel al-Sinari was handed over documents on the contractor's conditions to study and make observations, he explained that there is a base map prepared by the military survey authority and the information center.
15. The Committee held a meeting on 6/3/2017 during which the expert presented a presentation on the base map.
16. Everyone agreed to adopt them as a base map for the investment map.

7. MODELLING OF SUDAN INVESTMENT MAP

To achieve the objective of this paper five phases must be clarified these are inception modelling, conceptual modelling, logic modelling, physical modelling and representation modeling (Figure 6). The inception model aims to provide detailed instructions for the implementation of the Sudan investment map. The conceptual model is concerned with constructing and refining the candidate concepts. A logic model prepare the data dictionary as well as design the fundamental datasets of the Sudan investment map and shows how to export it into extensible markup language format. A physical model shows how the system's requirements are implemented. The presentation model coordinates with the domain layer and provides an interface to the view that minimizes decision making in the view.

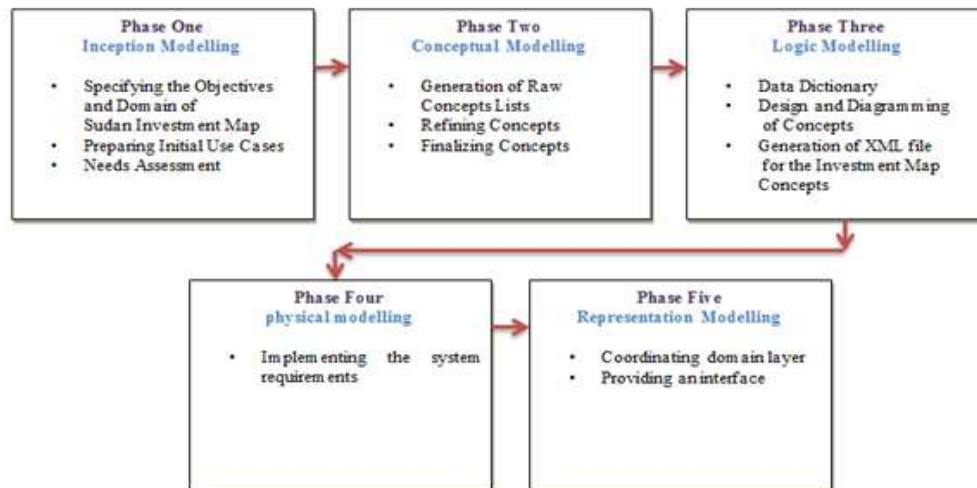


Figure 6: Frame of Work

8. CONCLUSION

This paper concluded to clarify the importance of the investment map and its role in the development of the country, including Sudan.

The concept of investment map and investment in Sudan has been identified and what has been done from the investment map of Sudan so far.

The general framework of the models to be created to make the investment map of Sudan including inception modelling, conceptual modelling, logic modelling, physical modelling and representation modeling was identified.

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