Profiling the determinants of Indian Foreign Direct Investment in Africa

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Dissertation submitted in partial fulfillment of the requirements for the degree *Magister Commercii* in International Trade at the Potchefstroom Campus of the North-West University

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September 2013

Abstract

India is fast becoming one of the largest economies worldwide, with expectations of becoming the second largest economy by 2050. The growth this country is demonstrating is accompanied by integration with other economies with active engagement in trade and investment in the world economy. Analysts and researchers strive to understand the possible effects of the rise of India on the global economy.

The influence of India's rise on Africa is an arguable topic. The Indo-Africa relationship has a strong political and socio-economic history. This relationship has undergone some changes since 1990 when India started a new approach that included internationalisation. In the modern economy the trade and investment from India to Africa have illustrated fast growth rates. It is claimed that India's main interest in Africa is to gain access to Africa's abundant resources with the intention of supporting its economic growth. This creates some concern on the nature of India's involvement in Africa; whether or not it will increase the development and whether it will put pressure on Africa's control of its resources.

This study focuses on understanding the extent of Indian FDI in Africa and the factors that determine this involvement. Africa is known as the poorest continent worldwide; hence the development should be managed and controlled in order to sustain the growth. The flows of FDI to this continent can provide some advantages that include growth and development, while FDI can also prompt some disadvantages such as resource extraction. Profiling the determinants of Indian FDI in Africa provides an understanding of the influence India may have on Africa.

Profiling the determinants of Indian FDI in Africa is done by means of a literature study that identifies the determinants that are applicable to African FDI. These determinants include natural resources, market size, political instability, macro-economic instability, weak policies, inflation, good governance, investment, GDP, growth, openness and oil production.

Following the literature study an analysis is done on the trend of FDI worldwide and especially between India and Africa. The overall amount of FDI flows illustrates large increases globally and developed regions account for the majority of FDI flows. The trends of flows illustrate some changes that highlight the prominent role developing

countries are starting to play. Africa is classified as a developing region that accounts for a fairly small amount of the total flows to the developing regions. It is noted that Africa's share is steadily increasing and is expected to keep on rising. Indian FDI to Africa has demonstrated some staggering increases, while India claims to further increase its involvement. India's FDI mainly flows to the resource sectors such as oil, coal and gas. India also states to expand its FDI involvement into African sectors such as the infrastructure, information technology, computer software, services and telecommunication.

Identifying the specific determinants of Indian FDI in Africa is established by estimating models using the Structural Equation Method (SEMs). A combination of a factor analysis and regression analysis is estimated. The specific determinants that influence Indian FDI in Africa include government effectiveness, control of corruption, crude oil price, school enrolment and exports. The level or value of the investments is influenced by the government effectiveness and rule of law.

This study concludes that India's involvement in Africa is increasing. India demonstrates high levels of interest in Africa's resources, but this is prone to expand across different sectors.

Key Words: Indian Foreign Direct Investment, African Foreign Direct Investment, Structural Equation Model

JEL classification: F21, F23

Opsomming

In die moderne ekonomie van 2013 is Indië besig om een van die mees vinnig groeiende ekonomieë ter wêreld te word, met die verwagting dat dit die tweede grootste ekonomie sal wees teen 2050. Die groei wat die land toon word ondersteun deur integrasie met ander ekonomieë en aktiewe betrokkenheid in handel en investering in die wêreld ekonomie. Analitici en navorsers streef daarna om die effekte van die opkomende Indië op die globale ekonomie te bepaal.

Die invloed van die stygende betrokkenheid van Indië in Afrika is debatteerbare. Die Indië-Afrika-verhouding het ‘n sterk geskiedkundige, politiese en sosio-ekonomiese agtergrond. Die verhouding het verskeie veranderinge ondergaan, aangesien Indië in 1990 ‘n ander benadering begin volg het wat internasionalisering insluit. In die hedendaagse moderne ekonomie toon handel en investering vanaf Indië na Afrika uitnemende groei. Navorsers is van die opinie dat Indië se belangstelling in Afrika hoofsaaklik is om toegang te kry tot Afrika se oorvloedige hulpbronne om sy eie groei te ondersteun. Dit skep ‘n mate van kommer oor die aard van Indië se betrokkenheid in Afrika en of dit ontwikkeling in Afrika sal verbeter en of daar meer druk op Afrika sal wees om hulpbronne beter te bestuur.

Die fokus van die studie is om die omvang van Indiese Regstreekse Buitelandse Investering (RBI) in Afrika te begryp sowel as om die faktore wat dit beïnvloed te bepaal. Afrika is bekend as die armste kontinent ter wêreld, daarom moet ontwikkeling bestuur en beheer word om volhoubare groei te verseker. Die vloei van RBI na die kontinent kan sekere voordele inhou wat groei en ontwikkeling insluit. RBI kan ook sekere nadele toon soos byvoorbeeld, die uitputting van hulpbronne. Deur die opstel van ‘n profiel van Indiese RBI in Afrika kan ‘n beter begrip verkry word van die invloed wat Indië op Afrika kan hê.

Die daarstelling van ‘n profiel van die determinante van Indiese RBI word gedoen deur gebruik te maak van ‘n literatuurstudiewat die toepaslike determinante vir Afrika lande bepaal. Hierdie determinante sluit in natuurlike hulpbronne, mark grootte, politiese onstabiliteit, makro-ekonomiese onstabiliteit, swak beleide, inflasie, goeie bestuur, investering, bruto-binnelandse-produk, groei, mark openheid en olie produksie.

Na aanleiding van die literatuurstudie word 'n analise gedoen om die tendens van RBI wêreldwyd en veral tussen Indië en Afrika te begryp. Die totale vloei van RBI toon groot stygings wêreldwyd. Die ontwikkelde streke ontvang die meerderheid van die RBI vloei. Die tendens van die RBI illustreer ‘n paar veranderinge wat die prominente rol van ontwikkelende lande beklemtoon. Afrika beskik oor ‘n klein persentasie van die totale RBI vloeie na ontwikkelende streke. Die tendense beklemtoon dat Afrika se aandeel stadig besig is om te styg en daar word nog stygings verwag. Indiese RBI na Afrika het sterk stygings getoon, terwyl Indië beweer om betrokkenheid verder te verhoog. Indiese RBI vloei hoofsaaklik na sektore soos die olie, steenkool en gas industrieë. Indië beweer ook om RBI in Afrika uit te brei na industrieë soos infrastruktuur, informasie tegnologie, sagteware, dienste en telekommunikasie.

Die identifisering van spesifieke determinante van Indiese RBI in Afrika is gedoen deur die daarstelling van modelle wat gebruik maak van die Strukturele-Vergelykings-Modellering (SVM) metodologie. Dit behels ‘n kombinasie van faktor analise en regressie modelle. Die spesifieke determinante wat Indiese RBI in Afrika beïnvloed sluit in regering doeltreffendheid, beheer van korrupsie, ru-olie prys, hoeveelheid skool inskrywing en uitvoere. Die vlak of waarde van die investering word beïnvloed deur regering doeltreffendheid en die oppergesag van die reg.

Die studie het tot die gevolgtrekking gekom dat Indië se betrokkenheid in Afrika styging toon. Indië demonstreer hoë vlakke van belangstelling in Afrika se hulpbronne, en dit is vinnig besig om ook na ander sektore uit te brei.

Sleutelwoorde: Indiese Regstreekse Direkte Investering, Afrika Regstreekse Direkte Investering, Strukturele-Vergelykings-Modellering

JEL klassifikasie: F21, F23

Acknowledgements

I would like to extend a thank you to all the people that contributed to making this study possible. A very special thank you goes to the following people:

- My supervisors, Dr. H Bezuidenhout and Ms Carike Claassen, for your time, inputs, support and motivation. Your guidance and knowledge have made a significant contribution towards the completion of this study.
- Marianne Goosen, for doing the language editing. Your time and efforts are highly appreciated.
- My family and friends, your infinite support, motivation and love mean a lot. Dad, Mom and Brother, thank you for always believing in me. Granny, thank you for all the prayers, I sincerely admire you. René, I really appreciate your motivation, listening, belief and support. I love you all.
- My extended family, Oom Johan and Tannie Marista Knoesen, thank you for always having an open door and having such sincere hearts. Oom Johan van Biljon, thank you for inspiring me and your willingness to help.
- Above all I would like to thank my Heavenly Father for giving me the ability and strength to complete this study.

Ms. S.E. Cloete
Potchefstroom
2013

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List of Abbreviations

AFDB	:	African Development Bank
BRIC	:	Brazil, Russia, India and China
BRICS	:	Brazil, Russia, India, China and South Africa
CFA	:	Confirmatory Factor Analysis
CFI	:	Comparative Fit Index
CIS	:	Commonwealth of Independent States
CMIN/DF	:	Minimum discrepancy function divided by degrees of freedom
DRC	:	Democratic Republic of Congo
EIU	:	Economic Intelligence Unit
EMU	:	European Monetary Union
EU	:	European Union
FDI	:	Foreign Direct Investment
GDP	:	Gross Domestic Product
GFI	:	Goodness of Fit
GNP	:	gross national product
HDI	:	Human Development Index
I	:	Internationalisation factor
IBSA	:	India, Brazil and South Africa
IFI	:	Incremental Fit Index
ITEC	:	Indian Technical and Economic Cooperation
L	:	Location factor
M&A	:	Mergers and acquisitions

MNE	:	Multi-national Enterprise
NFI	:	Normed Fit Index
O	:	Ownership advantage
OFDI	:	Outward Foreign Direct Investment
OLI	:	Ownership, Location and Internationalisation
RMSEA	:	Root Mean Squared Error of Approximation
ROI	:	Return on Investment
SA	:	South Africa
SEM	:	Structural Equation Method
SOE	:	State-owned enterprises
SSA	:	Sub-Sahara Africa
TNE	:	Trans-national Enterprise
UAE	:	United Arab Emirates
UK	:	United Kingdom
UNCTAD	:	United Nations Conference on Trade and Development
US	:	United States

CHAPTER 1: INTRODUCTION, PROBLEM STATEMENTS AND METHOD OF INVESTIGATION

1.1 Background

Aldan (2009) suggests that Africa's strive for development and growth is greatly influenced by three of the world's largest emerging economies: China, India and Brazil. These countries have growing economic interests in Africa and he claims that the main reason would be in order to gain access to Africa's resources and markets. This study mainly focuses on the determinants of Indian foreign direct investment (FDI) in Africa. Africa and India have renewed a strong history of political and socio-economic relationship. Currently the state and form of involvement India demonstrates in Africa is relatively new. India's interest in Africa is influenced and driven by the expanded interest and involvement China demonstrates in Africa. The engagement of India in Africa is mostly lead by the private sector[1], where China's engagement in Africa is commercially driven (Sidiropoulos, 2011).

The Indian government has made a great effort to differentiate itself from China's involvement in Africa. A growing amount of studies have been done in order to determine the effects and nature of the growing investment from China to Africa. There is a renewed consensus that these investments are mainly for the purpose of obtaining Africa's resources. According to Broadman (2011), most books and articles focus on Chinese involvement in Africa. Countries such as India and Brazil are not accounted for in Africa's investment studies, although these countries also demonstrate extended interests in Africa. Studies indicating the rise of Indian investment in Africa are scarce and therefore this study further investigates the rise of Indian FDI in Africa.

A statement by Bhatt (2008) at the University of Mumbai implies that India and Africa have continually expressed support toward each other. This support includes the anti-apartheid movement and the non-aligned movement. Mahatma Gandhi lived in South Africa in the 19th and 20th century and was originally from India. He was at the forefront of anti-apartheid movements and his political activism in South Africa influenced the racial policies (Sidiropoulos, 2011). The link between India and Africa arose from their strong history of India's Siddi community that originally came from Africa in the 10th century. Today more or less two million people, who are originally from India, live in Africa (Bajpaee, 2008; Sawant, 1994).

[1] Note the private sector refers to organisations that are privately owned and not part of the government, while

Uncertainty may arise with regard to Africa and India's future when taking their current state of involvement and their history into account. Africa's ability and need for development has proven to be of great opportunity for India and its prospects, since the African image of war and poverty is superseded by many seeing Africa as an opportunity with great promise as well as a growing economy. This is supported by Clark's (2012:16) statement that "*Most economic interpretation of the past and present presume that "Africa is poor". Not true. Africa is not really "poor" as portrayed: it is poorly managed and yet to be developed. Its inherent natural wealth is yet to be fully unlocked, leading many to expect a better future, and there is promise in this direction*".

A variety of African countries are some of the fastest growing economies in the world, which are boosted by foreign direct investment with high risk-adjusted returns (Price Waterhouse Coopers, 2011). Africa's increase in demand for investment opportunities has led to large changes and growth. The current stakeholders have large expectations with regards to their returns. The United States and United Kingdom are still the largest providers of FDI in Africa, but Asia has large increases in FDI to Africa. This primarily comes from India and China (Price Waterhouse Coopers, 2011). Their good trade relations with Africa have helped them to obtain a higher degree of FDI. The shift in FDI in Africa has forced the governments of African countries to change their policy strategies in order to account for the increased level of FDI that Africa is obtaining (Price Waterhouse Coopers, 2011).

As previously stated China, India and Brazil need resources in order to keep up and enhance their development and growth prospects. Africa has the ability to supply these countries with their needed resources. A brief analysis of India's development plans and growth prospects will provide a more defined perspective on the integration between Africa and India.

Before the 1990's the focus of India was on the improvement of its own exports as well as South-South cooperation. India has mainly used outward investments to achieve these improvements. Internationalisation and development of infrastructure has started to play a larger role after the 1990's. India's focus area has changed and so has its development and growth plans. Their interests in economic manners have expanded across borders and in different sectors. These expanded interests generally evolve around multi-national companies in developing countries. India also needs resources in order to enlarge its international competitiveness (Mohan, 2010). Africa's resources such as oil and minerals will, to a greater extent, help India to obtain their needed

resources. Broadman (2007) states that 50 to 80 per cent of FDI in Africa is in the natural resource sector and development thereof.

India claims that its interests are not only in resources but also in the development of sectors such as telecom, automobile, financial services, pharmaceutical and educational sectors. Currently Indian involvement in Africa seems small in comparison with China but India is planning on expanding its involvement and interest in Africa (Deming, 2010).The bilateral trade between India and Africa has shown large growth rates (Bajpaee, 2008). The sectors with high value investments are mainly the resource sectors in Africa, but Broadman (2011) highlights that India's interests are expanding beyond the resource sectors to include many other different sectors. India wants to trade with Africa because it has good quality oil and therefore helps with diversification of oil resources (Katakey, 2010). India has a very high demand for energy resources, therefore they mainly import crude petroleum, gold and inorganic chemical products (Barka & Mlambo, 2011). India's rapid expansion indicates that the country's need for more energy resources will increase in the next decade; currently they are the world's 5th largest consumer of energy. Today India imports approximately 21.5 per cent of its oil from Africa and India wants to increase this figure in the next few years (Sharma & Chaturvedi, 2011). This shows a large opportunity for Africa in order to increase trade as well as investment (Barka & Mlambo, 2011).

India owns only 0.5 per cent of the world's total oil reserves and since it is one of the largest energy consumers in the world, its demand for oil is increasing. India is becoming more focused on diversifying its sources of oil. India currently imports about 75 per cent of its oil from the Middle East. One of the largest sectors India is involved in, in Africa, is the petroleum sector; this involvement is mainly in countries such as Nigeria, Sudan, Côte d'Ivoire, Equatorial Guinea, Ghana and Angola (Barka & Mlambo, 2011). Currently an estimated 20 per cent of India's total mineral fuels are imported from Africa. Data regarding global-sectorial FDI are mostly scarce and incomplete. According to Broadman (2007) a large part of FDI flows to Africa is mainly in the oil sector. South Africa is also an important trading partner for India since it is India's fourth largest trading partner and the main commodities that are traded include gold and diamonds (Barka & Mlambo, 2011).

India is one of the world leaders in the service sector, with an increasing growth rate of 10 per cent annually and this sector contributes more than 50 per cent to their GDP. India's exports as well as FDI inflows are significantly influenced by the growth in this

sector (Prasad & Sathish, 2010). India's information technology or computer software sector attracts the most investment of its service industry and the country is known worldwide for its precision in this sector. Segments in the service industry such as tourism, transport services, professional services, infrastructure, related services and financial services also play a significant role in India and the world perception of their service sector. India has become a destination for many countries to outsource their services. India's competitive advantage lies in its services sector (Prasad & Sathish, 2010).

In the year 2008, India and Africa started with the Indo-African Forum Summit in New Delhi with their core focus being India's interest in Africa. India is striving to change the perception the world has of them, by becoming more of a donor to the world than a recipient (Kragelund, 2010). In this first summit issues such as agriculture, trade, industry, investment, peace and security, good governance and information technology were discussed. These also indicate the sectors that India has shown interests in, in Africa (Bhatt, 2008). The summit emphasised that the main objective is expansion of South-South co operations with integration between equal partners. Plans were established in order to ensure that all the issues and objectives that were talked about would be reached. Two documents were formulated in order to summarise the objectives the two countries formed namely, the India-Africa Framework for Cooperation Forum and the Delhi Declaration (Kragelund, 2010).

The summit is an indication of the future India and Africa are planning together. Both continents are able to provide each other with a helping hand in order to obtain their development and growth prospects. It is noted that most of India and Africa's involvement revolves around trade and investment. Their trade and investment relations are, to a great extent, explained by the following figures.

The bilateral trade figures between India and Africa indicate the large growth rates in investment and trade between these two countries. In the year 1990 bilateral trade between India and Africa reached an estimated amount of US$ 1 billion; in 2000 it was US$ 3 billion and reaching a high of US$ 36 billion in the year 2007/2008. The financial crisis that occurred in 2009 caused the numbers to decline to US$ 32 billion in the year 2010/2011 (Barka & Mlambo, 2011).

Africa's exports to India seem to be exceeding their imports from India. This is to a great advantage for Africa. Africa's exports to India have grown from US$ 587.5 million in the year 1990 to US$ 18.8 billion in the year 2009. The imports from India to Africa

have grown from US$ 436.8 million in the year 1990 to US$ 13.2 billion in the year 2009 (Barka & Mlambo, 2011).

FDI flows between these two countries have shown great progress. In the year 2000 FDI flows from India to Africa was US$243 million and in the year 2008 it was US$2.4 billion[2] (Barka & Mlambo, 2011). This shows the rapid change and increase in trade between Africa and India. The main question arising is whether these changes and large increases are beneficial to Africa and if Africa will keep up with the rising demand.

India and Africa have more relations than their trade and investment linkage. BRICS and IBSA[3] are both organizational groups where both India and South Africa are included. The BRICS countries include Brazil, Russia, India, China and South Africa. IBSA includes India, Brazil and South Africa. The BRIC countries became BRICS in the year 2011, with South Africa joining the group. This movement was initiated by China inviting South Africa to join. The BRIC group now includes Africa, Asia, Latin America and Europe, making a stronger stand for developing countries as a whole in the world (Wenping, 2011). BRICS is economically stronger than IBSA according to Mancheri and Shantanu (2011), and therefore IBSA may become irrelevant. China argues that IBSA will cause unnecessary overlaps with BRICS and therefore India should consider dissolving IBSA. A suggestion by China for a joint summit, BRICS-IBSA has not been approved by India, indicating that India prefers to keep IBSA apart. The reason points to India wanting to protect IBSA. This forum strengthens India's engagement with Africa as well as South America. The focus of India is to become a leading partner with African development (Mancheri & Shantanu, 2011).

Some opportunities arise when observing the possible interaction between India and Africa. It has been noted that these two countries share a common heritage and a possible bright future. Their interactions are not only evolving around their trade and investment but also via linkages such as BRICS and IBSA. India, with its strong service sector and Africa, with sufficient resources, seem to be the perfect match.

The following sections discuss the problem statement, motivation, objectives, methods and outline of the study.

[2] Note the amounts are estimated and may vary
[3] Note IBSA refers to India, Brazil and South Africa

1.2 Problem Statement

The great increase of FDI to Africa from emerging markets has posed big changes as well as challenges for Africa as a continent. The rising investment figures and higher demand for African commodities are putting a great amount of pressure on African countries to keep up with the demand and the increasing investments have to be handled in a manner that must be advantageous to the development of African countries. The changes in investors' perspective of Africa may have large advantages for Africa.

Questions with regards to India's increasing involvement in Africa are the following:

- What are the specific determinants, on micro- and macro-economic level that play a role in India's increasing investment?
- What countries and sectors are India mostly involved in, and what are the possible reasons for these specific areas of interest? Is India mainly interested in Africa's resource sector?
- What type of FDI does India mainly use for investment in Africa?
- What is the role of the risks and political state of African countries on India's choice to invest?
- Does the global economic state indicate a significant role on India's involvement in the African FDI flows?

One can summarise by saying that the problem to be solved in this study is the identification of the main determinants and specifying the influence of risks, political aspects and global economic role that indicate an effect on Indian FDI in Africa. Determining the effects this FDI shows on development and growth of Africa is also an important factor.

1.3 Motivation

There are many reasons for the importance of this study, but the main focus as stated in the problem statement is to identify the determinants including the risk, political and global aspects for Indian FDI in Africa. The motivations for this study can be summarised as follows:

- There seems to be a growing amount of studies done in order to determine the extent of the Chinese involvement in Africa, but studies identifying the extent of Indian interest in Africa are lacking. India is arising as one of the world's largest

emerging economies and along with this rise is the rise in Indian interest and involvement in Africa. This study focuses on adding to research of Indian involvement in Africa.

- Due to the economic growth in Africa there is a growing need for more and more research to be done. This study hopes to contribute to this research with the main focus being on the state of foreign direct investment on the continent

1.4 Objectives

The primary objective of this study is to profile the FDI determinants that influence Indian FDI flows to Africa. Aiming to reach the primary objective, some sub- objectives are set in place. These objectives are derived from the problem statement in Section 1.2:

- Identify and specify the African FDI determinants derived from existing studies
- Establish the state of Indian FDI flows in Africa, with detail on the different sectors and countries
- State the influence of global aspects as well as the risks and political aspects of African countries on Indian FDI
- Distinctly state the different micro- and macro-economic factors that indicate a significant role on Indian FDI in Africa

1.5 Methods

This study makes use of economic literature in order to test the stated problem. The first part of the study consists of a literature review on the literature regarding FDI. The theory includes the defining, classifying, theories, effects and determinants of FDI. Chapter two provides an overview of the related theory.

The second part of the study focuses on the empirical study that uses the literature as a theoretical background to test the hypothesis of the stated objectives. The empirical study is done by using a structural equation model (SEM) estimated using SPSS AMOS. The SEM is a combination between factor analysis and multiple regressions. It simultaneously tests the measurement and structural relationship of variables.

1.6 Outline of the Study

This study consists of five chapters that are structured as follows:

- Chapter one provides an introduction to the study, including a theoretical background
- Chapter two describes the literature review regarding all the FDI theories and necessary literature in order to obtain the stated objectives of the study
- Chapter three focuses specifically on the trend of FDI in Africa and the African countries and sectors that mainly receive FDI from India
- Chapter four conducts the empirical study in order to test the stated questions regarding Indian FDI determinants in Africa
- Chapter five interprets and summarises the results of the study and states whether or not the objectives of this study is met. Some recommendations are made in order to help with further studies

Some researchers state that in the modern world FDI can play a significant role in economic development and economic integration. Other researchers argue that FDI is harmful to the local markets and have the risk of extracting natural resources (OECD, 2008 & Stefanović, 2008). Researchers also claim that poorer countries illustrate greater effects from FDI (Sauvent, Maschek & Mcallister, 2009). The state of FDI flows and stock between and in countries has undergone some challenges as well as changes. World trends of FDI demonstrate large shifts to emerging markets. Researchers are motivated to examine these shifts in FDI and possible effects and causes (Sauvent *et al.*, 2009).

There is a sizeable amount of literature on the subject of FDI; therefore this chapter provides an overview of the relevant and most recent FDI literature published. The core of this chapter is on the importance of understanding FDI and form the appropriate framework needed to substantiate the empirical analysis in Chapter four. This chapter incorporates a descriptive analysis of the relevant definitions regarding FDI, the type of FDI, the theories of FDI, the effects of FDI and the determinants of FDI.

2.1 Relevant Definitions

The definition of FDI varies according to the researcher's preferences. Most studies focus on OECD's (2008:17) benchmark definition of FDI. This definition provides an understanding of all important aspects of FDI and is also known to set the world standard of FDI statistics. The definition is as follows:

"Foreign direct investment reflects the objective of obtaining a lasting interest by a resident entity in one economy ("direct investor") in an entity resident in an economy other than that of the investor ("direct investment enterprise"). The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence on the management of the enterprise."

The definition of FDI can be summarised as a long-term investment where the investor acquires a controlling part of a foreign firm. The firms where investment takes place are known as multi-national (MNE) and trans-national companies (TNE). MNE's and TNE's can be defined according to UNCTAD (2005):

"Trans-national corporations or Multi-national Enterprises are incorporated or unincorated enterprises comprising parent enterprises and their foreign affiliates. A

parent enterprise is defined as an enterprise that controls assets of other entities in countries other than its home country, usually by owning a certain equity capital stake. "

FDI can therefore take place in the form of establishing MNE and TNE's in a foreign country. Enterprises or firms demonstrate a variety of reasons for foreign interest or even shifts of productions processes. Through observation of the different types of FDI and the various forms of FDI, clarity can be provided on the different reasons and motivations for investors' decisions to invest abroad. The following section provides an overview of the classification of FDI as well as different forms of FDI.

2.2 Classification of FDI

FDI can be classified in different forms and types. These forms and types of FDI are related to the manner in which the investment takes place as well as the reason for investment. Te Velde (2006) states that researchers normally use the volume of FDI to determine the impact of FDI on economic development. Te Velde (2006) also identifies that the type of FDI, firm characteristics, economic conditions and policies play a considerable role. The following section identifies and describes the different types of FDI.

The different types of FDI can be defined as follows:

I. Market seeking or horizontal FDI's main purpose is to ensure access to the target countries' market. High exporting cost and trade barriers preventing market access are great motives for this type of investment. The home country's firm has production taking place abroad as well as in the home country (Bezuidenhout, 2007 & Slaughter, 2002).
II. Resources seeking or vertical FDI can be classified as investments that are made abroad to insure more reliable access to needed and affordable resources[4] (Moosa, 2002). This type of investment is likely to be motivated by price differences between countries where investors can shift production processes to the country with the lowest production cost, therefore increasing output and decreasing input (Bezuidenhout, 2007 & Slaughter, 2002).
III. Efficiency seeking FDI is mainly used by investors in order to gain from governance and geographically dispersed activities, by combining market seeking FDI and resource seeking FDI. MNE aim to take advantage of factors

[4] Note that this study uses the term "resources" to denote both resources such as oil and other minerals, as well as food and other agricultural products, which are commodities

such as the economic environment, economic policies and market structures (Shenkar, 2007).

The type and motivation of FDI is important, for instance **efficiency seeking** FDI can transform production structures and hence growth performance of firms. This can be seen in the structure of the East Asian countries' manufacturing sector (Te Velde, 2006). Nigeria, a rich oil country, indicates significant growth and increasing FDI flows that is for the most part motivated by **resource seeking** FDI (Te Velde, 2006). **Market seeking** FDI can replace local domestic capabilities in regions such as Latin America that can be classified as an import substitution (Te Velde, 2006). Apart from the different types of FDI, FDI can also take on different forms. These forms indicate the manner in which the investor enters the foreign country. Investors typically decide which form is more suitable for their needs:

- **Inward FDI** includes all direct investment in the host country that is held by non-residents, stating that all FDI flows that come into the host country are inward FDI (OECD, 2011)
- **Outward FDI** refers to a home country investing abroad, thus FDI flowing out of the home country (OECD, 2011)
- **Greenfields** is a form of direct investment that establishes a new firm with new facilities including production, distribution and other facilities taking place in the host country (Chatterjee, 2009). This is normally an advantage for the host country since more jobs are created and there is more value to the country's output (Moosa, 2002)
- **Mergers and Acquisitions (M&A)** refers to a form of FDI where investors acquires or merges with an existing firm in the host country (Chatterjee, 2009 & Moosa, 2002); this form of FDI is also known as joint ventures (Anon, 2003)

The different forms and types of FDI provide a theoretical background that supports the theories of FDI. The theories of FDI explain and define different researchers' concepts around FDI and the reasons for FDI taking place in specific countries and sectors. The theories provide insight on FDI's role on growth and development in an economy. The following section describes and defines the different theories of FDI.

2.3 Theories of FDI

Theories of FDI explain the role of FDI in economic growth. Understanding it is necessary to grasp how increasing Indian FDI in Africa might contribute to Africa's economic progress. The role of FDI on the host country's growth and development aspects is ingrained in the modernisation and dependency theories (Adams, 2009).This section provides a better detailed description of the relevance to the theories and the significant role these theories play in FDI.

2.3.1 Dependency theory

Between the years 1960 and 1980 developing nations strove for more equal wealth, income and power distribution (Witter & Wihelms, 1998). Developing and developed countries indicated imbalances and became dependent upon one another. Pigato (2000) argued that countries receiving FDI are more likely to become dependent upon foreign funds. As a result, FDI and economic growth might prove to have a negative relation. Certain sectors in the host economy develop faster than other sectors due to receiving more FDI, this leads to uneven growth and development in economies.

Wilhelms and Witter (1998) identify two sets of theories within the dependency theory that better explain the relation between underdevelopment and dependency. They make use of the neo-marxist or dependencia theory and structuralist theory as sub-theories. The neo-marxist or dependencia theory implies that developing countries are more oppressed by international trade and MNEs, which leads to weaker terms of trade and profit leaving the developing countries. The structuralist theory implies that a country's resources are extracted particularly in the poor countries. The dependency theory also implies that developed countries or the richer countries depend on developing countries in order to obtain and sustain their growth and development (Hunt, 1989). This theory has influenced many leaders in changing their approach and perspective. In order to protect their countries they have implemented policies to be more self-sufficient than being dependant on foreign funds (Velasco, 2002).

2.3.2 Modernisation theory

This theory plays a significant role today and was developed before the dependency theory. The modernisation theorist proclaims that capital investment is essential for economic growth. The theory originated from the neoclassical and endogenous growth

theories (Adams, 2009). The neoclassical theory is mostly applied in perfect market situations (Witter & Wihelms, 1998). This theory originated from Heckscher-Ohlin who defines the theory as follows:

"In a neoclassical framework with two final goods, two factors of production, and two countries which have identical homothetic tastes, a country will export the goods which intensively use the relatively abundant factor of production" (Van Marrewijk, 2007:134).

On the demand side of the economy a country can obtain the most efficient production process components by going abroad. This theory implies that FDI provides the country with extra capital, better labour and more developed technology (Mankiw, 2003). Todaro and Smith (2003) state that the law of diminishing returns do apply and benefits may be seen in the short-run.

The endogenous theory implies that FDI invested in human or physical capital generates positive externalities that compensate for the law of diminishing returns (Herzer, Klasen & Nowak-Lehmann, 2008). This results in economic growth that is particularly important for developing countries. FDI can provide more advanced human capital and technology spillovers (De Mello, 1997).

2.3.3 Eclectic theory or "OLI" model

John Dunning (1988) introduced the paradigm of Eclectic theory in order to explain the factors influencing MNE's decision of going international in production and other operations. This theory can be portrayed in the OLI model, which is known to be a prominent framework explaining the determinants of FDI (Stefanović, 2008). Researchers also note that although this model tends to be significant there are other important factors also influencing the MNE decision. These factors include the type of firm, country and the industry (Stefanović, 2008).

The OLI paradigm can be explained in three factors: The ownership advantage (O), the location factor (L) and the internationalisation factor (I). The location factor is connected to the macro-economic theory while the ownership and internationalisation are intersected by the micro-economic theory (Shenkar, 2007).

The ownership advantage refers to intangible assets that can be transferred by MNE to foreign markets, which can lead to lower cost or higher incomes. The location specific advantage is crucial in determining the host country of MNE activities. These advantages can be summarised as economic, political and social advantages.

Economic advantages include benefits from production factors, such as transportation cost, telecommunication and market size. Political advantages can include government policies that are aimed at improvement of FDI flows. The social advantages can include reduction of distances between countries in aspects such as cultural diversities (Denisia, 2010). Internationalisation theory implies the expansion of MNE due to agreements that are signed between companies. Internationalisation benefits are higher and therefore firms are encouraged to engage in foreign production (Denisia, 2010).

The described theories imply that FDI demonstrates some effects that include effects on the economic growth and development. Some forms of FDI also indicate to have some spillovers from the home country to the host country. The following section defines the most important effects of FDI.

2.4 Effects of FDI

The theories of FDI are of great assistance in understanding and explaining the effects of FDI, since they are correlated with one another. The rising role of FDI in especially developing countries raises some expectations with regards to the potential contribution of FDI to the development process. Factors such as monopoly, pressure from externalities and protectionism can lead to distortion (Moosa, 2002). FDI is becoming more important for linking economies, improving development, advancing human capital development and better international competitiveness. Therefore FDI can be acknowledged as a stepping stone to improvement of economic development by encouraging economic linkages between countries (Sauvent *et al.*, 2009). The effects of FDI are felt by both the home and host countries (Mencinger, 2006). This section discusses the most significant and relevant effects of FDI on the home and host countries.

2.4.1 Effect on output and economic growth

The inflows of FDI in an economy can imply either positive or negative effects on the country's economic growth and output. Mencinger (2006) states that one cannot just assume that FDI contributes to economic growth. The contribution to the gross domestic product (GDP) does not necessarily mean that FDI also adds to the growth of the gross national product (GNP).

A variety of studies have been completed on the possible effects of FDI on the economic growth conditions of an economy. Seetanah and Khadaroo (2007) have studied the effects of FDI on economic growth of African countries and found FDI to be a positive and significant factor that affects economic growth. It should be noted that FDI may also follow growth aspects, implying that investors tend to invest in strong economic growth conditions. Economic growth is likely to increase the market size, making it more attractive for market-seeking FDI. According to Johnson (2006) FDI and growth aspects indicate to support each other.

Focusing on the resource sector especially in the mining and energy sector, FDI is found to have a weaker influence on economic growth (Sukar *et al.*, 2007). This highlights the significant role that economic policies, openness and more domestic investment play on the economic growth. Local investments also indicate to have a positive effect on economic growth in developing as well as developed countries (Johnson, 2006). Kiat (2008) has also found FDI to be a significant factor of economic growth, but also emphasising the fact that FDI tends to follow growth aspects. The effects of growth are mostly initiated by improvement on employment, wages, human development, productivity, technology, inflation and reformed policies. FDI also indicates some effects on these factors.

2.4.2 Effect on employment and wages

Moosa (2002) summaries the possible effects of FDI on employment in the following three points:

- Greenfield investment provides a new firm with new employment opportunities
- M&A's provides employment opportunities with the expansion of already exciting firms
- The effect is not always positive. Although FDI is a more long-term form of investment, investors can still withdraw their investment and reduce production. This reflects a negative influence between FDI and employment

As stated by Pascal (2008), FDI's effect on wages and employment is complex and differs by region, types of investment and group of workforce indicating that the government or the shareholders may take measures to enhance the contribution of FDI to economic and social development. Aaron (1999) indicates that in the year 1997 FDI created a total of 67.7 million jobs. FDI not only increases jobs but also reflects rising

wages; these increases can be between 10 per cent and 130 per cent more than a local firm's wages (Asiedu, 2004).

Dissolving of unemployment by inflows of capital due to FDI can indicate a rise in welfare of the country; this statement is proven by Yabuuchi (1999) in his study to determine the effects of FDI on welfare and unemployment. FDI also indicates to be an important factor in the improvement of employees' working standards (Pascal, 2008). According to Ge (2006) there is a positive correlation between increasing wages and FDI. Ge's study focuses on the Chinese markets and the urban cities. A rise in physical capital as well as human capital indicates to increase the average wage levels.

MNE's are shown to pay higher wages than local firms. There is also a small effect on the local firms' wages; these effects are larger in developing countries than in developed countries (Pascal, 2008). The differences in effects are due to the gap in technology. The reason for higher wages can be traced back to some characteristics of a MNE, that include the sectors they are in, the highly educated employees they tend to hire as well as the size of the MNE. This seems to be larger than local firms and more capital intensive (Lipsey, 2002). These characteristics may differ as the market changes and therefore one can assume that these influencing factors may also vary.

2.4.3 Effects on human development

TNE's and MNE's are known to be relocating resources by making use of FDI including human capital. In the past most researchers have made use of a country's per capita gross national product to measure and determine a country's state of development. In the modern economy researchers such as Sen (1998) have identified that development of an economy depends on more than just an economy's GNP, but also on factors such as health care and medical knowledge. The human development index (HDI) takes all these factors into consideration in order to create a defined perspective of the country's development (Sharma & Gani, 2004).

The spillover effects that FDI indicates may take place in different forms including the improvement of the development of human capital. Knowledge from one country can be transformed to another country by making use of TNE's or MNE's. The importance lies in determining whether or not the host country is able to absorb the spillover (Blomström & Kokko, 2001). Countries with large amounts of human capital are more likely to attract technological spillovers improving their development in human capital.

The opposite is also true with smaller amounts of human capital. The spillover effect is not the same (Blomström & Kokko, 2001).

A variety of researchers have conducted studies with regards to the possible effects that FDI may have on human development, reaching different outcomes by making use of different concepts (variables) and different countries. Sharma and Gani (2004) have found FDI to have a positive effect on human development in low and middle income categories in different countries. Majeed and Ahmad (2008) have found health expenditures and illeteracy rates to have a signifcant influence on FDI flows. This indicates that a country with good health expenditures and low illeteracy rates are more likely to attract larger amounts of FDI. The relationship between FDI and HDI is found to be strong and positive, determined over different horizons (Minhaj, Ahmed & Hai, 2004). Larger FDI inflows to a country tend to improve the socio economic conditions in a country. This implies the importance of policies with regards to attracting more FDI as crucial (Minhaj *et al.*, 2004).

MNE's also contribute to the development of education by supplying scholarships and providing financial aid to employees in order to obtain formal education. The MNE's may also provide training for their employees. This type of training is mostly influenced by the type of industry, the type of FDI used to enter the market and conditions in the economy (Sharma & Gani, 2004).

2.4.4 Effect on productivity

Intra-industry spillover effects can have a considerable reflection on productivity. Hu & Tong (2003) have determined that the productivity and the presence of foreign firms reflect more productivity in the industry. Foreign firms tend to be more productive than local firms; this may be due to the fact that foreign firms produce on a larger scale (Lipsey, 2002). The highly developed technology of foreign firms also influences the productivity level and benefits the domestic firms. Hu and Tong (2003) also state that foreign firms tend to be located in sectors with high productivity. According to Sun, Jin and Koo (2002) there is a positive relation between FDI and productivity growth in developing countries, but in the United States the relation between FDI and productivity is negative. The United States market benefits from the foreign competition in the market.

2.4.5 Effect on technology

Technology transfers from one country to another can include machinery, equipment, experienced workers and technicians. Technology spillover may also lead to better human development by providing training to employees, which affects a variety of employees in different manners. One might argue that the MNE's are the only ones benefiting from the improvement of skills, but the firms' suppliers, subcontractors and customers are also influenced (Blomström & Kokko, 2001).

The technology transfer from one country that originated from FDI, to another, is a debatable subject. Researchers have found different outcomes for different situations. According to Xu and Wang (2000) the FDI flows is not correlated to any technology improvements. Saggi (1999) has found that licensing limits technology spillover. FDI has been determined to have a positive influence on growth as previously stated and most likely leads to technological improvement of the host country. This improvement is mostly transferred by the home country.

2.4.6 Effects on policymakers

FDI determinants that follow showthat FDI increases if the country offers the opportunity. By creating the perfect opportunities, it makes it easier for developing countries to attract more FDI. A country's policies are a great determinant for FDI. Policy makers have to reform some policies in order to attract more FDI (Nunnenkamp, 2002). Liberalising the policies with regards to FDI, changing business measures and privatisation are positive reforms for attracting more FDI and stimulating FDI flows. The changing economic condition and the shift in FDI flows may pressurize the policy makers to perform at best to ensure effectiveness (Nunnenkamp, 2002). Policy makers should concentrate on the economic development and reform policies to ensure the efficiency of FDI. Governments should state the negotiations and term of MNE's and TNE's in order to ensure that the correct and needed type of FDI is attracted (Sharma & Gani, 2004). The effect between FDI and policies seem to be positive although insignificant. The insignificance can be due to the influence of other external factors that exclude policy reforms (Vadlamannat & Tamazian, 2009).

In conclusion the importance of the effects of FDI on a variety of factors may lead to higher development and growth in a country. The effects may indicate to be positive or negative; the environmental aspects play a large role in the state of the effects FDI indicate on a country. FDI indicating negative effects is due to insufficient laws,

regulations and policies. Implementing the correct combination of laws, regulations and policies lead to possibilities of positive spillover effects of FDI (Herman, Chisholm & Leavell, 2004). Underdevelopment of education and infrastructure cause the effects of FDI to be less significant and indicating a smaller effect on economic growth. The improvement of the economic conditions is not solved by FDI alone; these problems are far beyond the ability of effects of FDI. Developed countries have a strong role in assisting the developing countries in order to create the right combination of factors for an ideal environment that helps FDI to produce positive spillover effects. Table 2.1 summarises studies done on the effects of FDI, providing a more defined perspective on the possible effects. The available and appropriate studies as well as studies with sufficient information are included in Table 2.1.

Table 2. 1: Studies on the effects of FDI

Researcher	Study	Method of study	Findings
Seetanah and Khadaroo (2007)	Investigating the impact of FDI on Sub-Sahara Africa countries' economic growth	Cobb-Douglas production function on 39 Sub Saharan African countries in the period 1980 to2000 by using cross country data	FDI has a significant positive effect on economic growth
Sukar et al. (2007)	Effects of FDI on economic growth in Sub-Sahara Africa countries	Augmented endogenous growth model by using panel data for the period 1975 to 1999	FDI as a marginally positive effect on economic growth
Johnson (2006)	The effects of FDI inflows on the host economy's economic growth	Cross section and panel data analysis on 90 countries during the period 1980 to 2002	FDI has a positive effect on economic growth in developing countries but not developed countries
Kiat (2008)	Determine the relationship between FDI inflow, economic growth, exchange rate and inflation	Linear regression analysis using 30 countries	FDI tends to follow economic growth

Table 2. 1 (Continue): Studies on the effects of FDI

Ge (2006)	Impact of inward FDI on urban wages	Panel data on Chinese cities	FDI has a significant and positive effect on urban wages
Sharma and Gani (2004)	Effects of FDI on human development	Regression results of a fixed effects model on middle and low-income countries during the period 1975 to 1999	Positive effect of FDI on human development for middle and low income countries
Majeed and Ahmad (2008)	Does human development in a country attract more FDI	Panel data for 23 developing countries during 1970 to 2004 with a fixed effects model	Higher health expenditures and lower illiteracy rates attend to attract more FDI
Minhaj et al. (2004)	The relation between FDI and HDI	Using time series data during 1973 to 2004 with a vector error correction (VEC) model	There is a positive and strong relation between FDI and HDI
Sun et al. (2002)	Productivity spill-overs from inward foreign direct investment in the U.S. food processing industry	1988 to 1992 using simultaneous equation.	The productivity spill-overs in the United States are negative due to their high productivity levels.

Source: Author's own compilation

After analysing the significant effects of FDI, it is identified that many effects are influenced by external factors contributing to the efficiency of FDI. A variety of factors can be concluded that elucidate reasons and factors influencing the investor's decision on making use of FDI as a form of investment. The different types of FDI describe overall reasons of FDI. This following section offers a descriptive analysis with regards to the determinants of FDI, identifying the external factors influencing the attractiveness of FDI.

2.5 Determinants of FDI

Identifying the determinants of FDI, it is important to remember that FDI takes place when investors (mainly MNE) invest in foreign countries. Their main objective will be to maximise profits and minimise costs. FDI is very dependent upon the environment; therefore the conditions of the country's economy play a crucial role. The environment and conditions can vary because of different stages of development. It is important to note that all determinates do not play an equally important role (Ajayi, 2006). FDI is also motivated by two main factors which are mainly market-seeking and resource-seeking. In this study the determinants of FDI are divided into micro- and macro determinants, which are both relevant to market-seeking as well as resource-seeking FDI. There are some specific determinants of FDI, but the main factor that plays a role is the market condition in the specific country where the investment take place (Bezuidenhout, 2007).

2.5.1 Micro-determinants of FDI

The micro-determinants mainly focus on the profitability that FDI brings to a firm or industry. These factors are location-specific and include market size and growth, labour costs, host government policies, tariffs and trade barriers, taxes, transportation cost and agglomeration effects, which are classified as characteristics of the host country.

2.5.1.1 Market size and growth

Investors are more likely to search for larger markets to invest in, where they can benefit from the advantages of a growing economy and market. The market size and growth are leading determinants in market-seeking FDI (Ajayi, 2006). As the country's markets expand, more goods and services are produced reaching larger economies of scale. This leads to the lowering of transaction costs, since production costs are lowered by economies of scale and lower fixed costs (Naude & Krugell, 2003).

Empirical work done by a variety of researchers has shown that the size of a country's market and the growth rate are important and significant determinants of FDI. Studies include Wheeler and Mody (1992), who have found FDI flows to be correlated with the economy's market size. This is also supported by Morisset (2000) who found openness of a market and economic growth as positive determinants of FDI. Asiedu (2002) has also found that the effect of openness to trade to be less significant for Sub-Sahara Africa countries than other countries.

2.5.1.2 Labour Costs

Efficiency and minimum cost are the main attraction of FDI to a firm or industry, especially in export orientated countries. Lower wages tend to reduce the production cost, if all other factors remain unchanged therefore encouraging relocation of part of the production process to foreign firms (Ajayi, 2006). Investors also seek skilled labourers and professionals who indicate more efficiency; the wages of a firm should reflect the productivity of that firm (Naude & Krugell, 2003 & Bezuidenhout, 2007).

According to Wheeler and Moody (1992) there is a significant positive relationship between low wages and FDI inflows. Lucas (1993) has also found a positive significant relationship between FDI inflows and lower wages. These findings are proven to be more applicable to developing countries.

2.5.1.3 Host Government Policies

The economic environment plays a significant role in an investor's decision to invest. The government of a country should implement policies that create a suitable environment; these policy reforms can include opening the sectors for investors, removal of possible restrictions on profit, capital allowance and supplying of security (Akinlo, 2004). Naude and Krugell (2003) suggest that the use of incentives should reduce costs and make investments reach their maximum profits. These incentives consist of policies that include tax breaks and trade incentives. Performance requirements can be placed on investors to obtain the benefits of FDI on the host country. These requirements can be hiring and training of the local personnel in the firms and industries. Empirical work done by researchers demonstrates that the effect of government policies is less straightforward (Bezuidenhout, 2007).

2.5.1.4 Tariff and Trade barriers

Tariff and trade barriers make it difficult for importers to enter the country. Avoiding these barriers is called "tariff hopping". An increase in "tariff hopping" leads to the growth of internal markets. Naude and Krugell (2003) state that Wang and Swain have determined that in order to reduce cost, MNE's must avoid trade barriers by making use of FDI to access markets. Jun and Singh (1996) have done a study in order to determine the relationship between FDI and "tariff hopping", the result indicates that

high tax rates and high costs involved with trade and FDI inflows are positively correlated.

2.5.1.5 Taxes

Taxation in a country can have a direct impact on the investor's decision; and may indicate an effect on other determinants of FDI. High corporate tax rates do not attract FDI, where lower corporate tax rates encourage investors (Jun & Singh, 1996). Countries therefore aim to attract investors with lower tax rates. High tax host countries may attract investors because of economies of scale (Bezuidenhout, 2007). Double taxation is possible in home and host country, and this may affect FDI. Taxes play a role in FDI flows, but other factors are considered to have a greater effect (Rusike, 2007).

2.5.1.6 Transport Cost

Investors aim to reduce cost and receive the maximum output for cheaper inputs. Therefore in the case of market-seeking FDI with the home country experiencing high transportation cost it will encourage a movement of the production to the foreign market. On the other hand resource-seeking FDI with high transportation cost indicates a rise in production cost which discourages the attraction of FDI (Bezuidenhout, 2007).

2.5.1.7 Agglomeration effects

The amount of FDI stock held by a country might be an indication of the level of risk involved in the country. Countries with large amounts of FDI inflows as well as stock tend to attract more direct investors. The presence of foreign investors in a country can lead to a variety of spillover effects including technological spillovers, skilled labour spillovers as well as obtaining larger markets that lead to higher demand and supply (Ajayi, 2006). The investor seeks for an environment that is ideal and where its needs can be met. Countries with good infrastructures, market access and sufficient resources attribute to an ideal environment. The current FDI stock of a country may well influence the MNE's decision for investment (Bezuidenhout, 2007).

2.5.1.8 Environmental factors

A variety of factors in a country can either improve investment attraction or discourage investments. The environmental factors of a country can include corruption, bureaucracy involvement, fiscal and financial attractions and law enforced regulations (Ajayi, 2006). These factors can trigger the uncertainty of the country's environmental aspects and influence the investor's decision.

2.5.2 Macro-determinants of FDI

The macro-determinants include factors that influence the profitability and the choice to invest at an economy-wide level. The micro-determinants, discussed above, may overlap with the macro-determinants. The main focus is on the macro-economic environment and the effects it has on the FDI flows of a country.

2.5.2.1 Openness and Exports

FDI is seen as a substitute for trade; therefore if one cannot trade with a country because of barriers, FDI is overseen as an option to access foreign markets (Naude & Krugell, 2003). As mentioned previously tariff-hopping indicates that there is a negative relationship between openness and FDI. In contrast with the negative relationship, economies that are outward orientated, offer efficiency and access to world markets, and thus attract more FDI. Empirical evidence has shown that openness of an economy has a positive effect on FDI flows. The importance of this relationship is to distinguish whether FDI is attracted to economies that export a lot or whether FDI leads to an increase in exports in the specific country. Evidence has shown that exports precede FDI (Bezuidenhout, 2007).

2.5.2.2 Exchange Rates

Openness and exchange rates are related as a determinant of FDI flows. Exchange rate as a determinant of FDI has two main lines: the currency area hypothesis and exchange rate risks involved. Firms in harder currency areas can borrow at lower rates and capitalise earnings received on FDI in areas with softer currency economies at higher rates than in local firms. A higher share of capital value added and the size of premium on the local currency indicates an increase in competitive advantage.

When undertaking FDI there are a few risks involved. The second line of argumentation includes exchange rate risk. The risk depends mainly on the type of activities the investor does in the hosting country. The host country can produce mainly for exports making the prices more competitive or some inputs needed in the production process are imported. Both are influenced by the exchange rate fluctuations. Risk is the uncertainty of the economic environment; this includes large fluctuations in rate that has a negative effect on FDI. Empirical work has shown that exchange rate as a determinant of FDI depends on whether the firm depends on the foreign markets for their exports of their goods or for the imports of inputs needed for production process (Naude & Krugell, 2003; Bezuidenhout, 2007).

2.5.2.3 Inflation Rates

Exchange rate which is discussed above shows the external economic balance, where inflation rate shows the internal macro-economic stability of a country. High inflation has a number of effects, including uncertainty, internal economic tension and higher production costs. High inflation also shows a lack of monetary and fiscal discipline, indicating poor macro-economic conditions. These effects lead to uncertainty in the country's business environment and makes investments in the country unattractive. Therefore high inflation rates have a negative effect on FDI flows (Bezuidenhout, 2007; Naude & Krugell, 2003 & Rusike, 2007).

2.5.2.4 Budget deficits

Countries having a large budget deficit are not attractive for investors since it creates an uncertainty regarding the sustainability of the host government's fiscal stance. A high budget deficit is therefore not an encouragement to FDI flows in a country. Empirical work has shown that there is a significant relationship between budget deficits and FDI flows (Naude & Krugell, 2003; Bezuidenhout, 2007).

2.5.2.5 Investment and Infrastructure

Investments and infrastructure increase productive capacity and therefore stimulate FDI flows (Asiedu, 2002). Production costs are lowered and productivity rises, creating a productive environment. Highly developed network of roads, airports, sea ports, supply of water and electricity, internet networks and telephones indicate that the country

consists of high quality infrastructure (HSBC *et al.*, 2003). This attracts investors to the country, thus increasing FDI flows in the country. According to Wheeler and Mody (1992) the quality of a country's infrastructure is an important function of the attarctiveness of an investor.

2.5.2.6 Political Instability

Political instability in a country raises a lot of concerns, including production disruption, damage to property, threats to personnel and on a macro-economic level it includes changes in management of macro-economic and regulatory environment (Naude & Krugell, 2003). Investors see political risk in a country as the most important risk determinant of FDI flows (HSBC *et al.*, 2003). This raises a level of uncertainty about cost and the profitability, decreasing FDI flows.

2.5.2.7 Natural resources availability

Some countries attract FDI due to the natural resources they possess. This indicates that FDI in these countries are natural resource seeking FDI. If the country provides access to natural resources, more FDI will be attracted indicating a positive relation between FDI flows and the natural resources the country consists of (Rusike, 2007). This is proven to be true especially in Africa, where most of the FDI stock and flows can be found in countries with resource availability (Ajayi, 2006).

FDI has a variety of determinants and the above mentioned determinants are published in the most foreign direct investment literature. According to different researchers the literature regarding FDI may differ to suit the purpose of the study. This shows all the important and relevant literature regarding foreign direct investment assessment of this study. Asiedu and Esfahani (2003) utilises the eclectic theory that all else equal, natural resource rich countries should receive more FDI than others.

This study's primary focus is on Africa and FDI flows specifically to African countries, therefore the following section provides a description of the state in Africa regarding the determinants of FDI in these countries. A variety of studies on this topic is also included providing an overview of empirical studies already done.

2.6 Foreign Direct Investment Theory: An African Perspective

The determinants can differ from country to country, depending on the economic, political and social conditions of the country. Africa has demonstrated to be different from the rest of the world; implying that Africa is more diverse and complex than other regions (Ajayi, 2006). Policies implemented by other countries may not indicate significance for African countries (Asiedu, 2002). According to Basu and Srinivasan (2002), the main attraction factors to African markets include:

- Africa's abundant resources have indicated to play a significant role in attracting FDI; countries such as Angola, Nigeria and Algeria primarily illustrate large amounts of FDI flows in their oil sectors
- The location of a country is an important attractiveness factor. This can be well pointed out by the South African (SA) case during the apartheid era, where Lesotho and Swaziland attracted large amounts of FDI in order to benefit from South Africa's large markets
- Some African countries have focused on changing their policies in regards to foreign investment attractions. These policies are mainly to ensure the economic and political stability of the country and to reduce uncertainty
- African countries are changing their economic and structural reforms. These changes are indicating higher FDI attractions for countries such as Uganda and Mozambique

It can be summarised that resources, locations, policies, economic and structural reforms influence African FDI flows. African countries are focusing on improving policies and structural reforms that create a more suitable environment for FDI. The following section provides detail on African determinants of FDI.

2.6.1 African studies

The research done on African studies seems to be limited and very few studies are focused on the state of FDI in Africa. Table 2.2 summarises the studies done on the determinants on FDI in African countries indicating only the availability of information.

Table 2. 2: Summary of African Studies

Researcher	Methods	Results
Asiedu (2006)	Analysis utilises panel data for 22 countries in Sub-Sahara Africa over the period 1984–2000.	These are significant FDI determinants: large local markets, natural resource endowments, good infrastructure, low inflation, an efficient legal system and a good investment framework
Asiedu (2002)	Panel data during 1988 to 1997.	The determinants of FDI to Sub-Sahara Africa differ from the determinants to other developing countries
Onyeiwu and Shretsha (2004)	Panel study during 1975 to 1999	Growth, openness, foreign reserves and resource endowments
Naudé and Krugell (2007)	Generalised Method of Moments during 1970 to 1990.	Inflation, good governance, investment, government consumption and original literacy are important for FDI inflows
Morisset (2000)	Panel data for 29 countries over the period 1990 to 1997.	GDP growth rate and trade openness have been positively and significantly correlated with the investment climate in Africa
Basu and Srinivasan (2002)	Case studies	Political, macro-economical and structural reforms are key factors in promoting FDI inflows.

Table 2. 3 (Continue): Summary of African Studies

Bennett (2005)	Panel data from 22 Sub-Saharan African nations, three separate regression processes to explain FDI inflows over the period 1982 to 2000.	GDP, trade, lag of FDI and crude oil production are statistically important in explaining FDI inflows to the host country

Source: Author's own compilation

Referring to Table 2.2, a summary of the determinants of FDI in African countries, it is important to note the different methods of the studies when taking the results into account.

Africa's natural resources and market size are significant factors influencing FDI in Sub-Sahara Africa(Asiedu, 2006). Asiedu (2002) has also determined that Africa's influencing factors differ from those of other developing countries. Risky investment due to uncertainty in Africa has a large negative impact on the inflows of FDI to the region. Political instability, macro-economic instability and weak policies are factors contributing to uncertainty in the region (Onyeiwu & Shretsha, 2005). Naude and Krugell (2007) found that determinants such as inflation, good governance, investment and government consumption play a significant role in the attraction of FDI. Africa has taken different actions on domestic, regional and international level in order to make Africa a better destination for investment (Onyeiwu & Shretsha, 2005). These changes may have an influence on FDI determinants.

Basu and Srinivasan (2002) state that strong leadership which leads to democracy and helps overcome political and social problems, as well as economic reforms, is an important factor in FDI attraction. They have also established that political, macro-economic and structural reforms are proven to be positive and significant factors of FDI. Morriset (2000) has determined factors such as GDP growth rate and openness of the market to have a positive influence on FDI inflows to Africa. Bennette (2005) has also done a study on FDI determinants of African countries and found GDP, Trade and oil production important factors in explaining FDI flows to Africa. The most important determinant of FDI in Africa is the economic policies (Bezuidenhout, 2007). More open economies and better environmental factors are determined to be significant factors of FDI (Naude & Krugell, 2003).

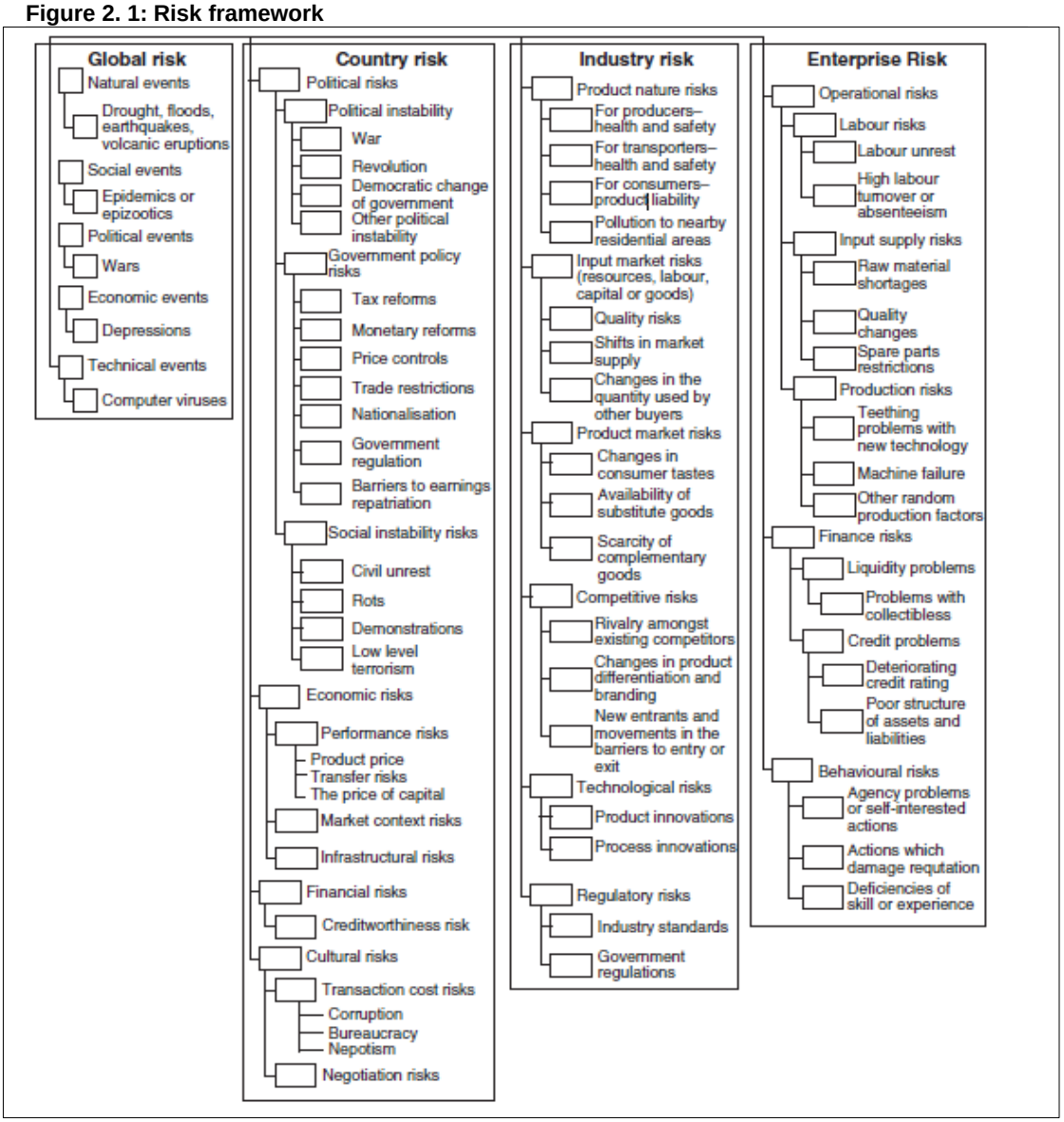
The African determinants indicate the importance of risk in Africa due to the high level of uncertainty. Political instability, macro-economic instability and weak policies are

identified as determinants that contribute to uncertainty. The following section analyses different risks that influence FDI, including global, country, industry and enterprise risk.

2.7 Risk Factors

It is derived from the African FDI determinants that risk factors play a significant role on FDI flows to the African markets. This section discusses an overview of all risks that influence FDI. Due to limited sources this section mainly makes uses of White and Fan's (2006) book, Risk and Foreign Direct Investment, as theoretical background. Figure 2.1 indicates a framework of all risks that influence an investor's decision to invest in Africa. This framework can be used in the overall assessment of risks that influence an investor's choice. The figure illustrates the complexity and different levels of risk from global filtering through to enterprise risk (White & Fan, 2006).

Figure 2. 1: Risk framework



Source: White and Fan, 2006

2.7.1 Global risk

According to White and Fan (2006) global risk includes unexpected events that influence all countries and industries. Global risk therefore includes a variety of factors that indicate a type of risk that spills across international boundaries. Global risks are not isolated and are mainly connected. Issues that arise from public policies and private enterprises such as food inflation, biofuels subsidies, rising Asian countries with increasing demand levels and climate change, form part of the global risk theory (World Economic Forum, 2008). White and Fan (2006) state that global risk includes events such as shocks, crises, disasters and catastrophes. This highlights the fact that global risk is interdependent. The interdependence of global risk makes it difficult to manage. According to the World Economic Forum (2008) there are four major global risks that influence Africa and this includes food and fresh water security, geopolitical instability, economic shocks and climate change.

According to White and Fan (2006) global risk can be categorised in three different elements; the primary risks' location, the degree of the exposure and the impact on the performance indicators. Global risk is hard to manage and control and is rarely mitigated. This influences the perception of investors, since investors avoid areas with high risk possibilities. Global risk influences the risk appetite and the importance of the other risks when investors make a decision to invest.

2.7.2 Country risk

Country risk is defined by factors or events that are country specific. According to Hoti and Michael (2002) country risk includes economic, financial and political risks. These different risks also tend to influence each other (Hoti & Michael, 2002). Hayakawa, Kimura and Lee (2012) indicate that political and financial risks play the most prominent role in country risk. Political risk indicates instability in the quality of the institutions and political standings. Financial risk refers to the weakness in a country's ability to pay its foreign liabilities. This makes a country more sensitive to financial crisis. Myanmar is a great example of a country where country risk factors influences the FDI flows. This country is rich in natural resources but indicates high risk due to military control. In 2012 Myanmar installed a civilian government which led to a decrease in risk and FDI is steadily starting to increase. This is in line with country risk playing a significant role in FDI flows.

2.7.3 Industry risk

According to White and Fan (2006), industry risk is a more broad description of market risk. The risk can be referred to as an unexpected change in an industry or sector. Some countries pose an industry advantage and regardless of the country risk level investors seek the industry advantage (Haaland & Wooton, 2002). This may be because of the advantage that a country offers in a certain sector or industry that is appealing for a firm that is not the same in another industry or sector operating in another part of the economy.

Deliotte's African Risk Map (2011), states industry risk is not only industry specific risk but also includes competitive risks. Competitive risks demonstrate inadequate competitive analysis and new MNE entering or exiting the market. Figure 2.1 illustrates the different factors that are included in industry: product nature risk, input market risk, product market risk, competitive risk, technology risk and regulatory risk. These are according to White and Fan (2006), the industry specific risks that influence MNE in an economy.

2.7.4 Enterprise risk

Enterprise risk includes the operations of MNE's, which is the level deeper than operational risk. All firms are unique in the specific risk they face (White & Fan, 2006). Operational risk, finance risk and behavioral risk are the risks that are included in enterprise risk. The operational risks include labour risks, input supply risk and production risks. Operational risk includes all risk in line with employees, the supply chain and production factors. This illustrates all the production factors that are needed for the products or services to be produced. The other risks that contribute to enterprise risk are finance risk and behavioral risk. The finance risk includes liquidity risk as well as cash flow problems that are related to the credit rating. The behavior of the enterprise influences the risk it exposes itself to.

Africa is exposed to all risks even though Africa is known for the high level of country risk. Political and financial risk in Africa tends to be higher due to uncertainty in the African Markets. The risks are not seen as a determinant of African FDI but risks influence investors' decisions.

2.8 Summary

This chapter provided a background on the existing literature of FDI in order to examine and identify Indian FDI determinates in Africa. The literature are used to substantiate the empirical study that is done in Chapter four. After the theoretical examination of FDI, it showed that it is a complex and diverse topic, especially in the case of Africa.

The reasons and motivations for MNE's to invest are supported by the different types of FDI. Market-seeking, resource seeking and efficiency seeking FDI include the main types of FDI. Market-seeking FDI indicates MNE's that obtain market access in a foreign market, while resource seeking FDI involves MNE that requires certain resources that are available in foreign markets. The efficiency seeking FDI focuses on the assembling of the best and most affordable production process factors. The MNE's can enter the market in different manners.

The different manners of entering a foreign market can include Greenfield FDI, which is where an entirely new firm is established in the foreign market. MNE can also make use M&A, where an already existing firm is acquired or merged within the host country by a foreign firm. FDI in a market can be explained by the theories of FDI.

The theories of FDI that were revealed mainly include three theoretical viewpoints regarding FDI, namely the dependency, modernisation and eclectic theory. The dependency theory argues that developing nations tend to become dependent upon foreign funds especially those from developed nations. The dependency of developing nations upon developed nations can lead to developed nations growing and developing at the expense of developing nations. The dependency theory can advocate two theories, the neo-Marxist and the structural theory. The neo-Marxist theory implies that developing nations are oppressed by international trade and MNE flooding the market. The structural theory states that poorer countries tend to be at risk of their resources being extracted. The dependency theory encourages countries to become more self-sufficient.

The modernisation theory is supported by the neoclassical and endogenous theories. The neoclassical theory implies that more capital added leads to larger outputs. This theory is determined in a perfect market situation and therefore the law of diminishing returns is applicable. The endogenous theory implies that the extra capital added leads to positive externalities that terminate the law of diminishing returns. The endogenous theory also points out the spillover effects that can be obtained in sectors such as the technology or labour markets.

The last theory is the eclectic theory that is supported by the OLI model, indicating the important role of ownership advantage, location factor and internalization factor.

A large volume of studies have been identified that indicate the possible effects of FDI on the host as well as home countries. These effects are influenced by the data, method and time period that the researcher has used. The main effects identified in this chapter include economic growth and output, human development, technology, employment and wages, productivity, inflation and policy makers' decisions. The effects are known to be positive or negative and may have a strong relation or a weak relation. The effects are also an indication of the factors that may influence a MNE's decision to invest in a foreign company.

The determinants of FDI are present under the different micro and macro determinants of FDI. The micro determinants identify the profitability that FDI brings to a firm or industry. These factors are location specific and include market size and growth, labour costs, host government policies, tariffs and trade barriers, taxes, transportation cost, agglomeration effects and environmental factors which are classified as characteristics of the host country. On the other hand the macro determinants are factors that influence the profitability and the choice to invest at an economy wide level. These determinants include openness and exports, exchange rates, inflation rates, budget deficits, investment and infrastructure, political instability and natural resources.

The literature developed around FDI is fairly large though the amount of studies done on African countries seems to be limited. The factors that indicated to play a significant role in MNE's decision to invest in Africa include, Africa's resources, the location and reformed political, economic and structural policies. The determinants are not the only influence on an investor's decision according to White and Miao (2006). Risks also influence FDI flows. The risks can be classified as global, country, industry and enterprise risks. African markets are sensitive to risk especially country risk that includes political risks.

This literature chapter provided the theoretical background in order to profile the FDI determinants of Indian FDI in Africa. The subsequent chapter supports the theory by plotting the FDI trends to Africa from all source countries and especially India.

CHAPTER 3: FOREIGN DIRECT INVESTMENT TRENDS

This chapter aims to provide an overview of the trends regarding the modern[5] FDI flows focusing on Indian FDI in Africa. Observing FDI trends provides an understanding of the home and host countries as well as sectors that mainly attract FDI. The primary objective of this chapter is to determine the state of Indian FDI in Africa. This objective is supported by understanding the global FDI flows as well all the FDI flows to Africa. In order to reach these objectives this chapter is divided into three main categories, that include the global FDI flows, FDI flows to the African markets and the Indian FDI to the African market.

Analysing the global FDI flows provides a perspective of where current FDI flows is heading and if the historic trends are changing. Observing the different regions in comparison to its level of development indicates the natural trend line of FDI and what the "ideal" region characteristics are. This section aims to create a global view of FDI and possible trends the world is experiencing.

Narrowing the global perspective to a more region specific study that focuses on Africa; an in-depth analysis is done on the African trends and the different African markets receiving the most FDI inflows. The originating point and the type of FDI flowing to Africa emphasise the intentions and the reason for increasing investments in the region. Africa is known for its rich natural resources and as Chapters one and two highlight a large amount of FDI in Africa is resource-seeking FDI. Examining the top receiving sectors of FDI in Africa indicates the reason for investment and whether or not the majority is only seeking access to Africa's resources. A large amount of studies have been done on African markets and therefore different researchers' opinions are observed and compared to current African FDI flows data. Understanding the African market is important to get a defined perspective of the potential and development opportunities.

India is one of the BRICS[6] countries that are indicating a highly concentrated interest in the African markets. Understanding Indian growth and markets provide a distinct perspective on the potential influence the presence of this country have in Africa. Using data to observe the flows from India to Africa and how the trend has changed over time supports the aim of the study, which is to profile the Indian FDI determinants in Africa.

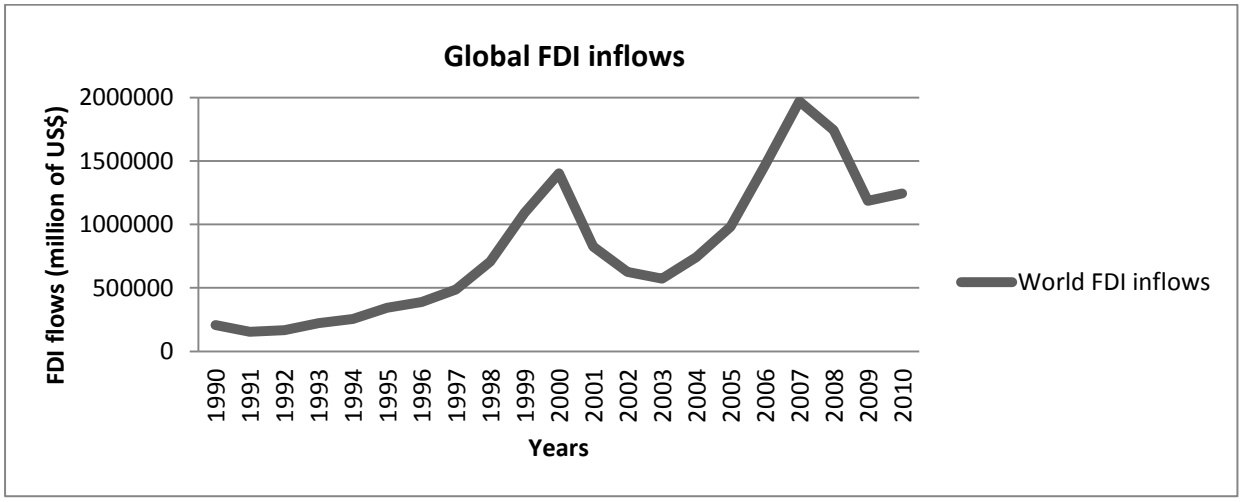
[5] Note modern FDI flows refers to the current FDI flows
[6] Note BRICS consists of Brazil, Russia, India, China and South Africa

India's share of all FDI flows to the African region points out the extent of India's power in Africa.

3.1 Global FDI Flows

The trends of global FDI stock and flows change over time and this leads to changes in development trends. In the past decade the global market has undergone substantial transformations. Emerging markets with rising outward foreign direct investment (OFDI) and its vast development from this has exceeded expectations (Sauvent *et al.*, 2009). According to UNCTAD's Investment report (2011) economic recovery and development is more dependent upon private investment, since fiscal policies are demising. The specific sector in which FDI is invested in has an important implication for development (Te Velde, 2006). Observing the global FDI flows highlights the changes FDI has undergone. Figure 3.1 indicates the worldwide FDI flows and the trends that have been experienced. According to Figure 3.1 the overall FDI flows have increased and it is illustrated that global FDI flows are greatly influenced by the global financial crisis that occurred in 2008 and 2009, where after FDI flows modestly increased in the year 2010. FDI illustrates a gradual increase over the past twenty years.

Figure 3. 1: Global FDI flows, 2003-2010 (millions of US$)[7]



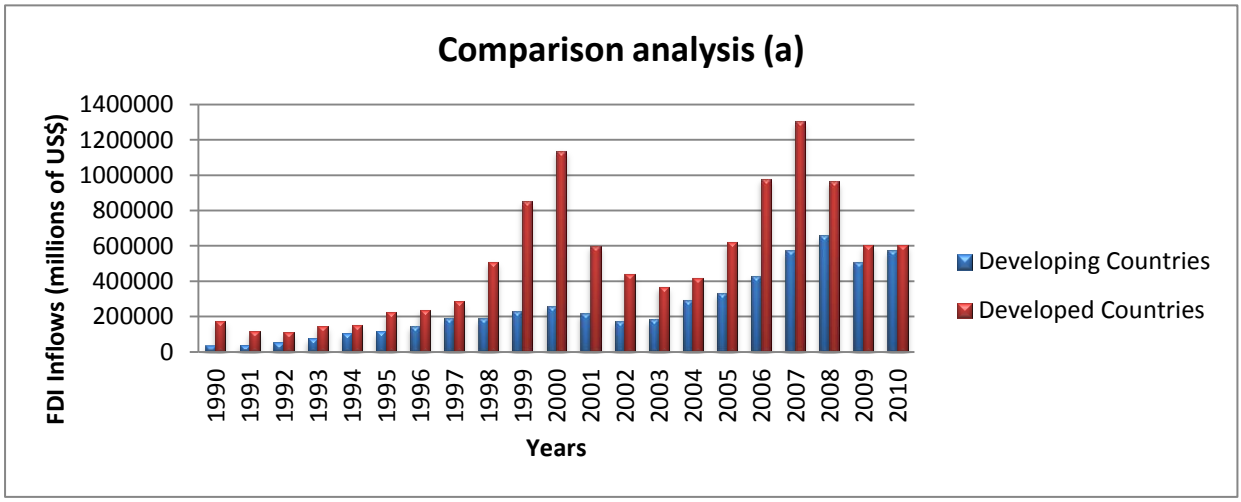
Source: UNCTAD FDI statistics database (2012)

Regardless of the decline during the financial crisis, the FDI net inflows has risen by 17 per cent in 2011 to US$ 1.5 trillion (UNCTAD, 2012a). UNCTAD (2012a) estimated that FDI flows in 2012 will approximately reach US$ 1.6 trillion, keeping in mind that risk and uncertainty play a major role.

[7] Note the years 2011 and 2012 are excluded from graphs if data is insignificant due to incompleteness

UNCTAD (2011) states that the overall rise in FDI flows is mainly caused by the higher flows to developing countries. In the modern day developing countries tend to attract more FDI flows. Figure 3.2 points out the rising share of developing countries' FDI compared to developed countries. During the financial crisis in the year 2008 and 2009 developing economies compared to developed regions have attracted proportionally more FDI flows.

Figure 3. 2: Comparison of net FDI flows in developing and developed regions, 1990-2010 (millions of US$)



Source: UNCTAD FDI statistics database (2012)

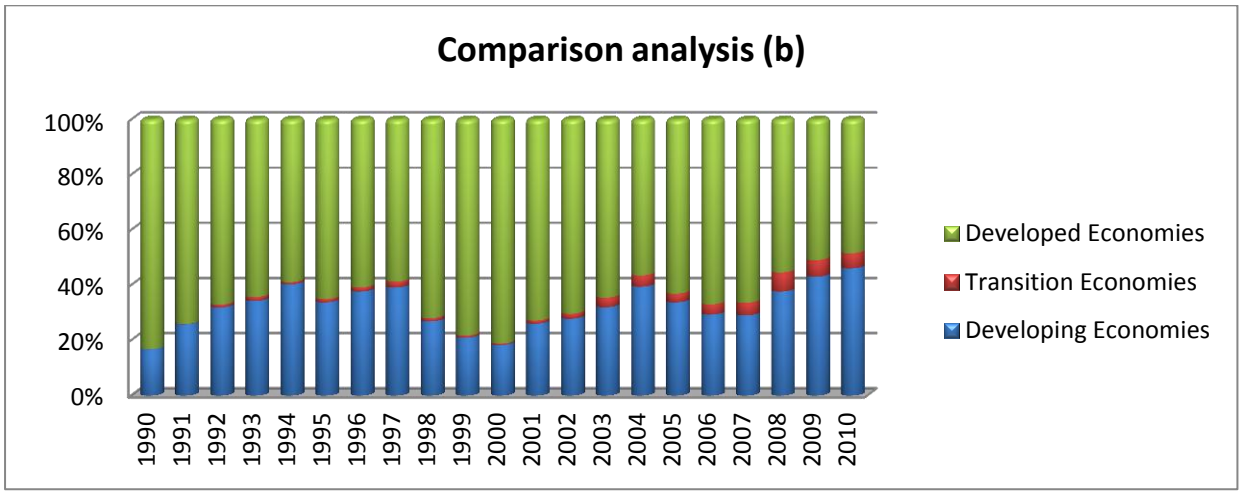
According to Te Velde (2006) only a few developing countries attract inward FDI flows due to their economic wealth and policy barriers. A variety of factors play a role in the attraction of FDI flows to a specific country. The traditional FDI determinants have indicated some changes over the past decade where economic fundamentals such as market size, market growth, the level of skills, infrastructure and technological potential play a more significant role than trade and investment policy barriers (Te Velde, 2006).

Developed countries demonstrate an 18 per cent rise in FDI inflows that is mainly in the form of M&A deals. Greenfields investments illustrate a higher level importance due to the investments in productive assets that is more required for development (UNCTAD, 2012a). MNE and TNE's production have generated approximately US$16 trillion in 2010, that accounted for a quarter of world GDP (UNCTAD, 2012b).

Figure 3.3 illustrates that in the year 2010 developing and transition economies accounted for more than half of FDI's total flows (UNCTAD, 2011). Its inflows reached a new record at US$ 755 billion that is primarily driven by Greenfields investments (UNCTAD, 2012a). International production and consumption that are relocated to developing and transition countries increase the investments in efficiency- and market-

seeking projects. Predictions imply that these trends will provide opportunities for investments in the long run (UNCTAD, 2012b).

Figure 3. 3: Comparison of developing, developed and transition economies, 1990-2010 (%)



Source: UNCTAD FDI statistics database (2012)

The major driver of the rise of developing and transition economies is FDI flows to Asian countries (excluding West Asia), these flows indicate to be influenced by the crisis in Europe (UNCTAD, 2012a). The following section provides a description of the different regions and which regions attract more FDI and which regions tend to have large OFDI. The regions that are discussed are divided into two groupings, the developing regions and developed regions. The most effective sources that are used are UNCTAD's World Investments Reports (2009, 2010, 2011).

Table 3.1 and Table 3.2 explain the FDI inflows and outflows of different regions respectively. This indicates the importance of some regions in comparison with other regions. Identifying some of the reasons for the change in figures may explain the reasons for some regions consisting of more FDI than other regions. The declining slope that is experienced in 2008 and 2009 is due to the global financial crisis that was experienced and affected regions across the globe. The effect of this financial crisis overflowed into the year 2011 and only some regions were able to recover quickly. The major difference in the regions can be identified after the rebound of the countries in 2010.

Table 3.1: FDI inflows by region, 2007-2010 (US$ millions)

Region	2007 (US$ millions)	2008 (US$ millions)	2009 (US$ millions)	2010 (US$ millions)	2007 (%)	2008 (%)	2009 (%)	2010 (%)
World	**1970.9**	**1744.1**	**1185.0**	**1243.7**	**100.0**	**100.0**	**100.0**	**100.0**
Developing economies	**573.0**	**658.0**	**510.6**	**573.6**	**29.1**	**37.7**	**43.1**	**46.1**
Developing economies: Africa	63.1	73.4	60.2	55.0	3.2	4.2	5.1	**4.4**
Developing economies: America	169.5	206.7	141.0	159.2	8.6	11.9	11.9	**12.8**
Developing economies: Asia	339.3	375.7	307.5	357.8	17.2	21.5	26.0	**28.8**
Developing economies: Oceania	1.1	2.2	1.9	1.5	0.1	0.1	0.2	**0.1**
Developed economies	**1306.8**	**965.1**	**602.8**	**601.9**	**66.3**	**55.3**	**50.9**	**48.4**
Developed economies: America	331.2	363.4	174.2	251.9	16.8	20.8	14.7	**20.3**
Developed economies: Asia	31.3	35.3	16.4	3.9	1.6	2.0	1.4	**0.3**
Developed economies: Europe	895.8	515.0	387.8	313.1	45.4	29.5	32.7	**25.2**
Developed economies: Oceania	48.5	51.4	24.4	33.0	2.5	2.9	2.1	**2.7**

Source: UNCTAD FDI statistics database (2012)

Table 3.1 illustrates that developing countries indicate an increasing growth rate where developed countries' growth rate was deteriorating during the financial crisis years. The relative proportion of growth and FDI stock between developed countries and developing countries are shrinking. Europe is the largest receiver of FDI flows followed by Asia and then America. This specifies the changes that are taking place in FDI flows that is becoming more abundant in developing regions especially in Asia. The transformations are not only visual in the inflows data but also in the total FDI outflows from each region. Table 3.2 clarifies the FDI outflows from different regions.

Table 3. 2: FDI outflows by region, 2007-2010 (US$ millions)

Region	2007 (US$ millions)	2008 (US$ millions)	2009 (US$ millions)	2010 (US$ millions)	2007 (%)	2008 (%)	2009 (%)	%2010 (%)
World	**2174.8**	**1910.5**	**1170.5**	**1323.3**	**100**	**100**	**100**	**100**
Developing economies	**294.2**	**308.9**	**270.7**	**327.6**	**13.5**	**16.2**	**23.1**	**24.8**
Developing economies: Africa	10.7	9.8	5.6	6.6	0.5	0.5	0.5	**0.5**
Developing economies: America	61.7	80.6	45.5	76.3	2.8	4.2	3.9	**5.8**
Developing economies: Asia	221.7	218.4	219.5	244.6	10.2	11.4	18.8	**18.5**
Developing economies: Oceania	0.0	0.1	0.1	0.1	0.0	0.0	0.0	**0.0**
Developed economies	**1829.0**	**1541.2**	**851.0**	**935.2**	**84.1**	**80.7**	**72.7**	**70.7**
Developed economies: America	452.3	388.7	324.6	368.2	20.8	20.3	27.7	**27.8**
Developed economies: Asia	82.2	135.2	76.4	64.2	3.8	7.1	6.5	**4.9**
Developed economies: Europe	1274.1	983.3	434.2	475.8	58.6	51.5	37.1	**36.0**
Developed economies: Oceania	20.5	34.1	15.9	27.0	0.9	1.8	1.4	**2.0**

Source: UNCTAD FDI statistics database (2012)

Developing regions are indicating a large growth rate in FDI outflows, with this growth rate consecutively increasing. The developed region indicates to have the largest amount and growth rate of outflows by far, but the financial crisis influenced the growth rate to proportionately decrease. The following sections provide an overview of the different regions including developing and developed regions. The aim is to clarify the important changes these regions experience.

3.1.1 Developing regions

The developing regions include Africa, Asia, Latin America, the Caribbean and South-east Europe. In 2008 **Africa** reached a high of US$ 73.4 billion FDI inflows. That is a large amount for one of the world's least developed regions. The escalation in FDI figure is due to favourable global commodity prices and good returns on investments (UNCTAD, 2009). The financial crisis that influenced commodity prices and diminishing world demand, led to the decline in 2009 where FDI flows fell to US$ 60 million.

North, East and South-East Asia are the regions that have experienced the smallest decline in a global perspective. FDI flows to this region indicated a decline of 17 per cent to US$ 233 billion in 2009. This region demonstrates an unexpected rebound in terms of global consumer and business confidence (UNCTAD, 2010). **West Asia** can be classified as a whole other story with a decrease of 24 per cent to US$ 66 billion in 2009. **South America** underwent strong increases in FDI flows in 2008 that was mainly caused by the high inflow increases to the top four recipient countries: **Brazil** (with 30 per cent), **Chile** (with 33 per cent), **Colombia** (with 17 per cent) and **Argentina** (with 37 per cent). After three years of uninterrupted growth this region experienced a 32 per cent decrease to US$ 117 billion. In 2009 this declining curve was due to the global financial crisis and influenced the whole region. The M&A deals illustrated major decreases during the financial crisis which led to the majority of decreases in the total FDI flows during this period (UNCTAD, 2010).

South-East Europe mounting FDI inflows in 2008 are mainly motivated by privatisation of State-owned enterprises (SOEs). The **CIS**'s[8] rising FDI flows can be assigned to the desire for access to large and growing local markets (UNCTAD, 2009). South-East Europe and CIS indicated deteriorating FDI flows with a decrease of 43 per cent in 2009 that is largely due to investors' confidence declining. In spite of the large decrease in FDI inflows in 2009 it was the third largest amount of FDI stock the region held, reaching almost US$ 500 billion. MNE's from European Union countries is liable for most of Greenfields and M&A deals (UNCTAD, 2009). OFDI is expected to increase in this region in 2011 to 2012 as a result of stronger commodity prices and economic recovery (UNCTAD, 2010).

[8] Note CIS: Commonwealth of Independent States

3.1.2 Developed region

FDI flows in developed regions reached a high in 2007, but in 2008 inward as well as outward flows fell. Inflows fell by 44 per cent to US$ 566 billion and outflows by 17 per cent to US$ 1,507 billion. A significant reduction in M&A deals was experienced due to the deep recession developed countries fell into (UNCTAD, 2009). The developed regions include the United Statesand European Union.

The **United States** is classified as the largest recipient of FDI worldwide. The amount of US$ 316 billion FDI inflows indicated a rise of 17 per cent in 2007 to the United States. The rising FDI inflows are due to high levels of equity capital in the manufacturing and finance sectors that increased with 61 per cent. FDI flows to **Canada** fell with an astonishing US$ 63 billion in 2008, which was mainly due to the end of the natural resource boom[9]. The **EU-27** underwent a 40 per cent decrease in FDI inflows to US$ 503 billion in 2008. Seven of the ten largest M&A deals of 2008 took place in the European Union (UNCTAD, 2009). FDI inflows to the **European Monetary Union** (EMU) fell with 48 per cent to US$ 287 million in 2008. **Japan** is one of the regions that experienced the smallest decline, with no influential effects from the crisis, compared to other regions. Its FDI inflows sustained an upward trend in 2008 reaching US$ 24 billion, mostly concentrated in the services sector. In context Japan, one of the largest economies in the world, with high levels of trade and financial market ties have a low amount of inward FDI stock (UNCTAD, 2011 & UNCTAD, 2009).

After analysing the most relative regions, the changing environment of FDI flows is transparent. Developed regions indicate a decline in FDI flows and developing regions are playing a more prominent role. More than 50 per cent of FDI flows are going to developing and transitional economies. Developed regions are still playing a significant role and tend to follow the curve of the global trend of FDI flows.

Summarizing the global FDI flows it is highlighted that overall FDI flows and stock across the globe increased with an astonishing amount between the year 1990 and 2010. There is a shift that took place in the determinants of FDI with factors such as market size, growth, level of skills, infrastructure and technological developments. These factors play a more significant role in determining FDI than just observing trade and investment. The majority of FDI taking place is in the form of Greenfields FDI, indicating that investors are acquiring a more prominent role in foreign countries. The

[9] Note the natural resources boom was led by high value added cross-border investments in the mining and natural resource industries in 2006 and 2007

changing environment of FDI flows is highlighted by the fact that most of FDI flows are going to developing and transition economies. Developed regions are not playing such a significant and overruling role as in the past. The changing perspective on Africa's potential and growth is identified and its increasing role in receiving higher flows of FDI. The following section analyses the African trends to identify its prosperous changes that are taking place.

3.2 FDI Trends in Africa

3.2.1 Current state of African FDI

Ernst and Young's Africa Attractiveness Survey "Building Bridges" (2012), states that foreign investors are more adequately identifying the potential and growth opportunities that African markets present. The persistence Africa demonstrated during the economic downturn in 2008/2009 indicates to have a positive influence on the attractiveness of Africa as an investment destination. A great part of Africa's growth is due to its exports of resources, but the rising domestic consumption indicates that growth is not proportionately unbalanced. FDI inflows illustrate strong growth and are expected to reach US$ 150 billion by 2015 (Ernst & Young, 2012). A study done by the UN indicates that profitability in African firms has been relatively higher than most other regions.

The African market is complex and rarely understood; this region has some of the fastest growing economies, such as Nigeria but this does not change some investor's perception of risk in this region. Africa has many risks but also many rewards such as the high ROI. The return of investment (ROI) on FDI averaged at 29 per cent from 1991 (Bhattacharya, 2011). Some researchers claim that the increasing levels of FDI are because of the high levels of ROI. The sources of these increasing FDI flows differ but the prevailing Asian economies are an essential source of FDI in the African markets. This may be for acquiring natural resources which Africa is very rich in. This fact makes Africa dependent upon its natural resources and may pose some difficulties and problems since natural resource prices are very volatile and extractable therefore these resources need management and maintenance. The increase in FDI flows to this region poses some advantages such as job creations, development, skill and technology transfers that is diversifying Africa's economy.

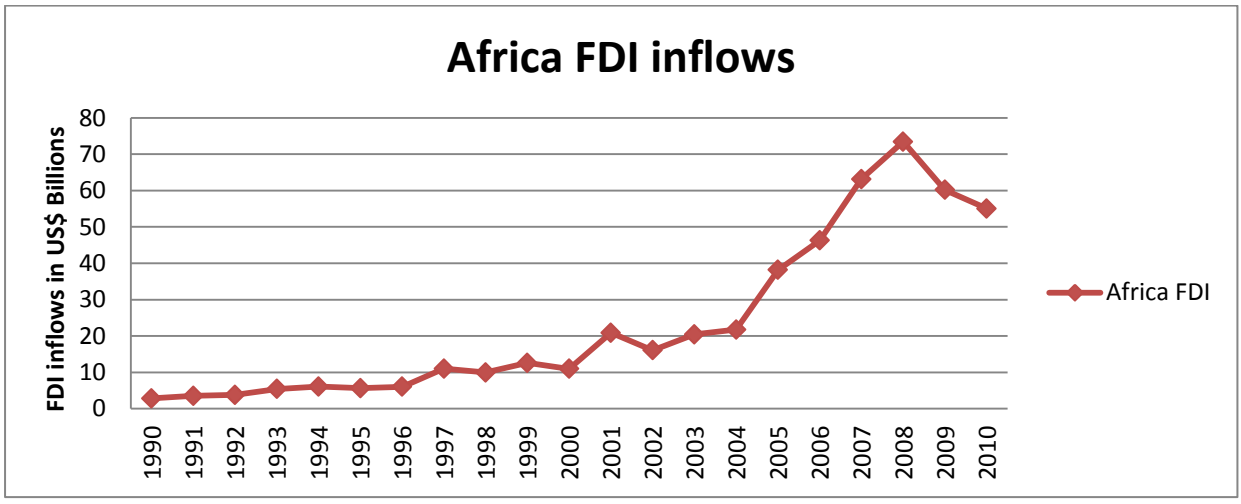
Although Africa has proved increasing potential and high growth rates, it seems that the African growth story has not yet been fully understood. Africa owns a small portion of FDI with approximately receiving 5 per cent of global FDI projects (Ernst & Young,

2012). Africa's FDI flows do not reflect a region with some of the fastest growing economies and high returns on investments (Ernst & Young, 2011). This indicates the misperception of Africa as well as the large challenges African investors face. The FDI market is extremely competitive and the African market needs to be understood better and eloquently. Investors need to gain an understandable perspective on the risks and rewards of the African market.

Some of the challenges that foreign investors may face in the African market, include the misperceptions in the international community of Africa. It is viewed as unstable, full of corruption and a risky investment. These circumstances are currently under change. Lack of regional integration is another challenge that makes cross-border business more ineffective and difficult. Africa's poor infrastructure is a large cause of underdevelopment in Africa and therefore a great challenge (Ernst & Young, 2012).

Figure 3.4 illustrates the escalation in FDI flows to Africa since 2000, highlighting the peak of US$ 73 billion in 2008. The global economic crisis in 2008/2009 caused a decline in FDI inflows as well as in outflows. In 2010 Africa's FDI inflows was reported at US$ 55 billion, compared to the global downturn Africa demonstrated a remarkable recovery.

Figure 3. 4: Africa's FDI inflows, 1990 – 2010 (US$ billions)



Source: UNCTAD FDI statistics database (2012)

The sources of FDI differ but the prevailing Asian economies are an essential source of FDI in Africa and support the stimulation of FDI inflows to Africa. In recent years the rising FDI from and to developing regions has played a significant role in Africa's changing FDI markets. Countries such as China, India and Malaysia have become substantial sources of FDI in Africa, accounting for interregional FDI flows among developing countries. A large number of investments are resource-seeking FDI, where

countries such as China and India are mainly investing in sectors such as the manufacturing and infrastructure sectors (UNCTAD, 2010). Africa's dependency on natural resources may pose some problems and difficulties. Natural resources tend to have volatile prices and can be extracted, therefore natural resources must be managed and maintained. This requires the government to play a significant role and enforce policies regarding the natural resources production and exporting (Economic Commission for Africa & African Union, 2010).FDI plays an important role in Africa's growth and development structures. Rising FDI in Africa leads to more jobs being created, advanced developing of local suppliers, spillovers such as skills, technology and knowledge transfers and diversifying Africa's economy (Ernst & Young, 2011).

3.2.2 Top African FDI recipients

Classifying the African FDI flows provides an indication whether or not there is skewness in the African FDI. The following section provides an overview of the top FDI recipient countries in Africa. Table 3.3 illustrates the average FDI flows to the African countries. Different time periods are used in order to account for missing values as well as changes in the economic markets. These changes include happenings such as the global financial crisis that affected all regions.

Table 3. 3: Average FDI inflows in Africa, 1990-2010 (US$ millions)

1990-2010			2008-2009			2000-2010		
Rank	**Country**	**Average FDI inflows in US$ millions**	**Rank**	**Country**	**Average FDI inflows in US$ millions**	**Rank**	**Country**	**Average FDI inflows in US$ millions**
1	Angola	4297	1	Angola	14126	1	Angola	7591
2	Nigeria	2992	2	Nigeria	8449	2	Egypt	4943
3	Egypt	2972	3	Egypt	8103	3	Nigeria	4353
4	South Africa	2239	4	South Africa	7186	4	South Africa	3501
5	Morocco	1197	5	Libyan	3393	5	Sudan	1790
6	Sudan	981	6	Algeria	2677	6	Morocco	1779
7	Tunisia	913	7	Sudan	2641	7	Libyan	1730
8	Libyan	896	8	Democratic Republic of Congo	2283	8	Algeria	1468
9	Algeria	844	9	Tunisia	2223	9	Tunisia	1361
10	Democratic Republic of Congo	735	10	Morocco	2219	10	Democratic Republic of Congo	1296

Source: UNCTAD FDI Statistics (2012)

This global happening is accounted for in determining the FDI inflows separately for that specific period. It is remarkable that the average FDI flows to the top African countries during this period was the highest. It should be noted that the average only accounts for two consecutive years, while the other periods account for the long-term. This highlights the fact that African FDI is increasing and indicated substantial results during the financial crisis. Table 3.3 illustrates that regardless of the time period the top ten African countries that receive FDI stay constant. Only a selected few countries receive the dominant amount of FDI in Africa, the question arising is: why these specific countries? The following section provides an overview of these African countries and important characteristics of these economies.

3.2.2.1 Angola

Angola is classified as a middle income market economy, regardless of its challenges. AFDB (2012) classifies Angola as a thriving country with a booming economy and aspirations to play a prominent role in Africa. The country is very dependent upon oil, since 95 per cent of all export is oil and it accounts for 79.5 per cent of fiscal revenues. Angola is Africa's largest oil producer for 2010 with an estimated 1.9 million barrels per day.

Angola's GDP growth rate was captured at 3.7 per cent in 2011 (ranked 111th in comparison to the rest of the world) and a GDP per capita of US$ 5 900 in 2011 (ranked 141th in comparison to the rest of the world) (CIA Factbook, 2012). Angola's natural resources include petroleum, diamonds, iron ore, phosphates, copper, feldspar, gold, bauxite and uranium.

3.2.2.2 Nigeria

Nigeria has the largest consumer market in Africa even with its economic uncertainties and political challenges. The impact of the global economic crisis has been less severe on Nigeria if compared to other African countries (AFDB, 2012). In 2008 Nigeria took up some economic reforms, aiming to improve its political instability, corruption, insufficient infrastructure and weak macro-economic management (CIA Factbook, 2012). Nigeria, mainly recognised for being an oil-rich country also consists of natural resources such as natural gas, tin, iron ore, coal, limestone, niobium, lead and zinc (CIA Factbook).

Nigeria has indicated a GDP growth rate of 6.9 per cent in 2011 (ranked 26th in comparison to the world) and a GDP per capita of US$ 2 600 (ranked 177th in comparison to the world) (CIA Factbook, 2012). Nigeria's HDI is reported at 0.459 and is ranked 156th out of 187 countries worldwide. This emphasises the weak development and low levels of income in this country.

3.2.2.3 Egypt

Egypt has a large amount amount of natural resources that primarily include oil and gas, which account for a certain amount of foreign exchange earnings (AFDB, 2012). The resources in the country include iron ore, phosphates, manganese, limestone, gypsum, talc, asbestos, lead, rare earth elements and zinc. This country has reported high growth rates in recent years while living standards and conditions for Egyptians remained poor. Since 2004 some economic reforms have been implemented to attract more FDI and facilitate growth (CIA Factbook, 2012).

Egypt illustrated slow growth in 2011 with a growth rate of 1.2 per cent compared to 5.1 per cent in 2010 (rated 179th in comparison to the rest of the world). The GDP per capita amounted to US$ 6 500 (rated 136th in comparison to the rest of the world) (CIA Factbook, 2012). Egypt's HDI is at 0.644 and rakend 113th out of 187 countries (AFDB, 2012).

3.2.2.4 South Africa

South Africa's economy is well diversified and is the largest and the most developed economy in Sub-Saharan Africa. South Africa has an abundant supply of natural resources where it is the largest producer of gold, platinum and chromium (AFDB, 2012). The other resources include antimony, coal, iron ore, manganese, nickel, phosphates, tin, rare earth elements, uranium, diamonds, copper, vanadium, salt and natural gas. It is classified as a middle-income and emerging economy (CIA Factbook, 2012).

In 2011 the country's GDP growth rate was 3.4 per cent (ranked 119th in comparison to the rest of the world) and its GDP per capita was at a high of US$ 11 000 (ranked 105th in comparison to the rest of the world) (CIA Factbook, 2012). Its HDI was ranked 123th (out of 187) and is reported at 0.619 (AFDB, 2012).

3.2.2.5 Morocco

Morocco mainly relies on its agricultural sector but in recent years this country has started to diversify its structure. These economic diversifications are supported by the implementation of better macro-economic management as well as structural and sector reforms (AFDB, 2012). Morocco consists of resources such as phosphates, iron ore, manganese, lead, zinc, fish and salt (CIA Factbook, 2012)

This country indicates an estimated growth rate of 4.6 per cent in 2011 (ranked 85th in comparison to the rest of the world and its GDP per capita is documented at US$ 5 100 (ranked 149th in comparison to the rest of the world) (CIA Factbook, 2012). Its HDI is 0.582 and is ranked 130th (out of 187).

3.2.2.6 Sudan

Sudan is one of Africa's poorest countries, which has had to deal with social conflict, civil war and secession of South Sudan. Its GDP is largely driven by its oil production that contributes to FDI and government investment (AFDB, 2012). The agricultural sector of this country contributes one third to the GDP and proves to be 80 per cent of the work force (CIA Factbook, 2012). Some of Sudan's other important sectors include petroleum, small reserves of iron ore, copper, chromium ore, zinc, tungsten, mica, silver, gold and hydropower (CIA Factbook, 2012),

After a growth rate of 6.5 per cent in 2010 Sudan experienced a negative growth rate -0.2 per cent in 2011 (ranked 201th compared to the rest of the world). The secession of South Sudan (that took place in July 2011) can be the main cause of the negative growth since South Sudan accounted for three-quarters of former Sudan's total oil production (CIA Factbook, 2012). The GDP per capita was US$ 3 000 in 2011 (ranked 172nd compared to the rest of the world). Its HDI is ranked 169th (out of 187) and is reported at 0.408 (AFDB, 2012).

3.2.2.7 Tunisia

Tunisia's important sectors include its agriculture, mining, tourism and manufacturing along with resources such as petroleum, salt, phosphates, iron ore, lead and zinc. The main exports are textiles, food products, petroleum, chemicals and phosphates. Its economy is classified as diverse and market oriented.

In 2011 Tunisia indicated no growth and reported a growth rate of zero per cent where in 2010 it had a growth rate of 3.1 per cent (ranked 200th in comparison to the rest of the world) and with a GDP per capita of US$ 9 500 it ranked 113th (CIA Factbook, 2012). A HDI of 0.698 ranked the country 94 (out of 187) (AFDB, 2012).

3.2.2.8 Libya

Hydrocarbons is Libya's most important sector since it accounts for 95 per cent of export income, 65 per cent of the total GDP and 80 per cent of the government's revenue. The country also consists of resources such as petroleum, natural gas and gypsum (CIA Factbook, 2012).

In 2010 it indicated a growth rate of 4.2 per cent and a GDP per capita of US$ 14 100 (ranked 88th in comparison to the rest of the world). The high GDP per capita is due to high revenue from energy sector along with a small population. Its HDI is ranked 64th (out of 187) and is recorded at 0.760.

3.2.2.9 Algeria

Algeria has indicated extraordinary economic performance in recent years. The economy is very dependent upon its oil and gas sector but its services and agricultural sector also play a significant role (AFDB, 2012). The CIA Factbook (2012) classifies hydrocarbons as the backbone of Algeria's economy since it accounts for 30 per cent of the GDP and 95 per cent of total export revenues. The country's most important resources include petroleum, natural gas (10th largest reserves in the world), iron ore, phosphates, uranium, lead and zinc.

A growth rate of 2.9 per cent was documented in 2011 (ranked 128th in comparison to the rest of the world) and a GDP per capita of US$ 7 200 (ranked 132nd in comparison to the rest of the world). The country's HDI is 0.698 and is ranked 96th (out of 187).

3.2.2.10 Democratic Republic of Congo

The Democratic Republic of Congo's most important sectors are agriculture and industrial sectors. The oil industry indicates the largest contribution to the country's GDP (60 per cent), exports (85 per cent) and tax revenue (75 per cent) (AFDB, 2012). The country's dependency on its oil industry indicates volatility to the economy. During the global financial crisis the oil revenues decreased with 30 per cent (CIA Factbook,

2012). The Congo consist of resources such as petroleum, timber, potash, lead, zinc, uranium, copper, phosphates, gold, magnesium, natural gas and hydropower.

The country demonstrated an excessive growth rate of 8.8 per cent in 2010 and in 2011 a 5 per cent (ranked 75th in comparison to the rest of the world) growth rate was reported. The GDP per capita was US$ 4 600 in 2011 and ranked 156th in comparison to the rest of the world (CIA Factbook, 2012). Its HDI is low with a 0.389 (AFDB, 2012).

The African countries that receive the most FDI indicate to be countries with significant growth rates. These countries also indicate to consist of a variety of natural resources. The following section consists of an overview regarding the types of FDI mainly flowing to Africa, the top source countries as well as the sectors that receive the majority of FDI.

3.2.3 Classifying African FDI flows

This section aims to clarify the state of African FDI. This is in line with understanding what type of FDI African countries receive, from where the FDI originates and what the main sectors are, that attract FDI in Africa. This provides some background as to why investors invest in Africa and what the main attractions are of this continent. It should be taken into account that Africa's FDI is complex due to the frequently changing environment.

3.2.3.1 Africa's top recipients according to the different types of FDI

Table 3.2 indicates the African countries that receive the majority of FDI while diversifying between Greenfields and M&A. This provides confirmation that the African countries receiving FDI are mainly the same countries as illustrated in Table 3.1. This highlights the importance of Greenfields FDI in Africa and how high the inflows of Greenfields FDI are. Africa has seen an increase in FDI inflows between 2003 and 2011 with the number of Greenfields projects increasing from 339 to 857 (153 per cent increase). These increases in investments come from developed and emerging markets as well as intra-African investments (Nyagah, 2009)

Table 3. 4: Africa's top recipient countries, 2003-2012 (US$ millions)

Rank	M & A	US$ millions	Greenfields	US$ millions
1	South Africa	92	Egypt	126 285
2	Egypt	46	Nigeria	119 496
3	Zimbabwe	32	Algeria	72 641
4	Nigeria	17	South Africa	64 677
5	Morocco	13	Tunisia	63 756
6	Tunisia	5	Libya	58 956
7	Ghana	5	Angola	58 951
8	Kenya	2	Morocco	54 451
9	Mozambique	2	Mozambique	32 062
10	Mauritius	2	Ghana	30 116
	Grand Total	217	Grand Total	681 392

Source: FDI Markets Database (2012) and Zephyr Database (2012)

Table 3.4 highlights the high levels of FDI flows to African countries, these values include all FDI deals done between 2003 and 2012. The question arising is where do these FDI flows originate? The following section provides an overview of the source countries that mainly invest in African markets.

3.2.3.2 Top source countries of African FDI

This section identifies the top source countries of FDI in Africa; the source countries provide a perspective of the major role players in the African FDI market. Different source countries invest in different sectors because of different needs and objectives.

Table 3.5 indicates the major investors of Africa in the form of FDI whether Greenfields or M&A. South Africa indicates a prominent role in Africa being ranked first in M&A and ninth with Greenfields investment. The United Arab Emirates (UAE) is ranked sixth in terms of M&A deals in Africa and first with Greenfields deals done. The United Kingdom also features in both Greenfields and M&A deals done and ranked third in both cases. The United State is also included in both types of FDI inflows where it is ranked second with the value of its Greenfields deals and seventh with it M&A deals done in Africa. China and India are starting to play a prominent role in Africa and its rising figure of FDI.

Table 3. 5: Africa's top source countries, 2003-2012 (US$ millions)

Rank	M &A	US$ millions	Greenfields	US$ millions
1	South Africa	44	UAE	129 903
2	France	18	United States	102 773
3	United Kingdom	13	United Kingdom	85 262
4	Egypt	9	France	60 950
5	Morocco	7	Canada	49 609
6	UAE	6	China	45 600
7	United States	5	India	45 167
8	Nigeria	4	Bahrain	33 621
9	Netherlands	4	Australia	31 513
10	Malaysia	3	South Africa	25 668
	Grand Total	**113**	**Grand Total**	**610 065**

Source: FDI Markets Database (2012) and Zephyr Database (2012)

Europe remains the primary source of investment in Africa, but in recent years Asia is starting to indicate rising interests (Thomsen, 2005). Observing the Greenfields projects, that account for 90 per cent of total FDI, the largest developing economy investors in 2011 were India, South Africa, China, Korea and Mauritius (Sulaiman, 2012). China and UAE remain essential role players in terms of Africa's investment inflows, but countries such as South Korea, Saudi Arabia, Turkey and India also indicate to play a more prominent role in the African markets (Nyagah, 2009). Observing the number of FDI projects since 2003 India indicated to be the fourth largest FDI investor, an annual compounded growth rate of 46 per cent was reported since 2007 (Nyagah, 2009).

Africa is more motivated, confident and committed to move forward as a continent. This statement is indicated by the growth shown by intra-African investment (Nyagah, 2012). Intra-African Greenfield projects have indicated a 23 per cent growth rate between 2003 and 2011. This growth rate is primarily led by a few African countries that include Kenya, Nigeria and South Africa. These countries indicate to be among the top twenty investors in Africa (Nyagah, 2012).

The different source countries target different industries in Africa according to their needs, objectives and nature. The following section provides an overview of the top

invested sectors in Africa and some assumptions can be made to the reason for these investments.

3.2.3.3 African sector overview

Analysing the top receiving sectors in Africa defines the perspective on what investors are mainly interested in. The sectors or industries that attract the majority FDI flows indicate the sectors or commodity group that investors are interested in. This can also clarify the type of FDI whether it is resource, market or efficiency seeking FDI.

Table 3.6 indicates African sectors that receive the majority of FDI; with the coal, oil and natural gas sectors indicating the highest value of FDI flows. This sector received a total of US$ 22.4 million of Greenfields investment during the period of 2003 until 2012. The other major role players include the chemical, metals, food and tobacco and automotive industries. The M&A deals are in the telecommunication, metal, cement, intermediation, crude oil and gas industries. The major role players in Africa are the resource industry as well as the service industry such as telecommunication.

Table 3. 6: Top receiving African sectors, 2003-2012 (US$ millions)

Rank	M & A	US$ millions	Greenfields	US$ millions
1	Other telecommunications activities	22	Coal, Oil and Natural Gas	22 409
2	Mining of other non-ferrous metal ores	20	Chemicals	7 431
3	Manufacture of cement	18	Metals	5 065
4	Other monetary intermediation	10	Food and Tobacco	2 303
5	Extraction of crude petroleum	5	Automotive OEM	1 402
6	Manufacture of gas	4	Communications	1 234
7	Other financial service activities, except insurance and pension funding	4	Alternative/Renewable energy	875
8	Life insurance	3	Hotels and Tourism	824
9	Manufacture of refined petroleum products	3	Plastics	757
10	Manufacture of fertilisers and nitrogen compounds	3	Computer software and information technology services	525
	Grand Total	**90**	**Grand Total**	**42 825**

Source: FDI Markets Database (2012) and Zephyr Database (2012)

Africa's service sector has indicated a prominent role in the last year, though the extractive industries tend to attract more attention (Sulaiman, 2012). Sectors such a tourism, consumer products, construction, telecommunication and financial services are offering high growth potential among respondents in Africa (Ernst & Young, 2011).

African countries such as Nigeria, Ghana and Democratic Republic of Congo indicate to consist of commodities that are highly in demand. FDI tends to be concentrated in these countries. Nigeria has reported its FDI inflows at approximately US$ 8.9 billion (a fifth of Africa's total FDI inflows) and is known as Africa's top oil producer. Oil and gas producing countries such as Ghana (commercial oil production started in 2010) and Mozambique are expected to show large amounts of FDI inflows (Sulaiman, 2012). These countries are highlighted to play a prominent role in Africa's future FDI flows.

The different African countries attract different proportions of the FDI flows and this is mainly due to the economical characteristics and development level of sectors. It is indicated that countries that are rich in oil, gas and coal play a more significant role than other African economies. The overview of the top receiving sectors indicates the prominent role of natural resources in Africa. The following section provides an overview of the total Indian FDI in Africa and the possible nature of these increasing flows to this region.

3.3 The Indo-Africa[10] FDI Relations and Trends

3.3.1 India's background

The perception of India has changed over the past decade due to the rising potential India demonstrates. In the modern economy many classify India as the "economic powerhouse of tomorrow" (Jadhav, 2005). Goldman Sachs (2007) argues that among all the BRIC countries, India has the potential to grow the fastest during the next 50 years. The Indian GDP measured in US$ will overlap the size of the United States' economy before the year 2050, placing India in the position to be the world's second largest economy (Sachs, 2007).

India is supressing difficulties such as poverty, overpopulation, corruption and environmental degradation while indicating economic development that is supporting this country's major rise on a global perspective (CIA Factbook, 2012). India's growth rate has averaged more than 7 per cent since 1997; this is mainly due to liberalisation,

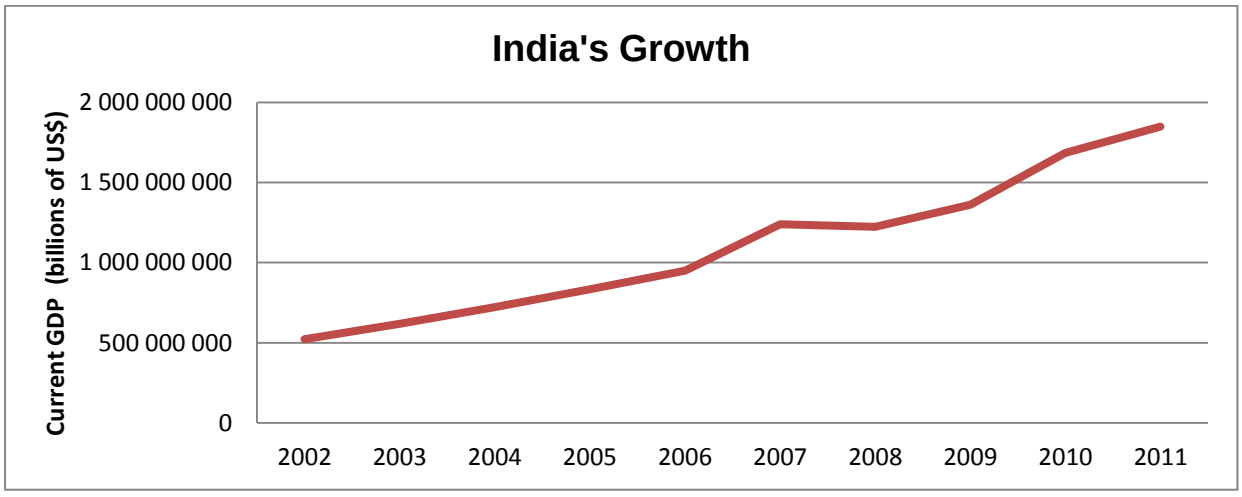
[10] Note Indo-Africa refers to India and Africa combined

increase of privatisation (replacing state-owned organisations) and reductions in controls of trade and investment policies that started in the 1990's. India is widely known for its significant service industry that accounts for the majority of growth (CIA Factbook, 2012).

Observing India's economic conditions a summary from the data on CIA Factbook (2012) discusses the country's current GDP, growth, sector breakdown and labour force. India's GDP (purchasing power) ranked fifth in the world with US$ 4.421 trillion in 2011. Its growth reached a high of 10.1 per cent in 2010 and 6.8 per cent in 2011 where it ranked thirty-fifth on a national level. The top sectors' contributions to the GDP are the agricultural, industrial and service sectors with 17.2 per cent, 26.4 per cent and 56.4 per cent respectively. India's total labour force is ranked second in the world with 487.6 million people in 2011. The majority of the labour force belongs to the agricultural sector with 52 per cent belonging to this sector and 34 per cent belonging to the services sector and only 14 per cent to the industrial sector (CIA Factbook, 2012).

India has demonstrated a unique growth over the past decade. Figure 3.5 indicates how India's GDP has increased; shows little to none decline not even during the financial crisis that was experienced during this period. Researchers argue that India's growth rate will keep exceeding and it is expected that India will become the second largest economy by 2050.

Figure 3. 5: India's current GDP(Growth), 2002-2010 (US$ billions)



Source: UNCTAD FDI statistics database (2012)

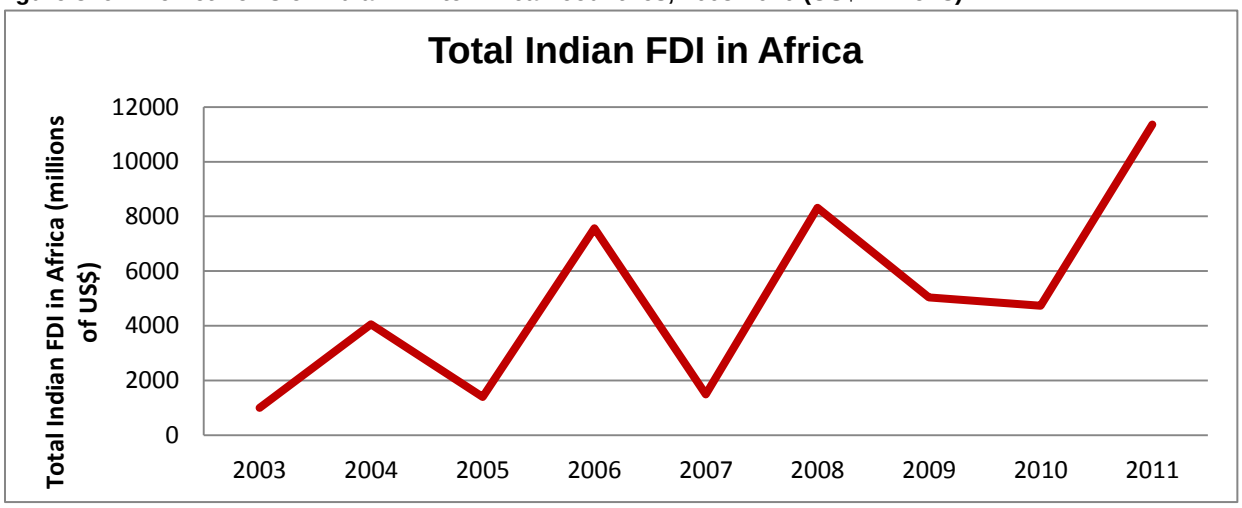
3.3.2 Indo-Africa FDI

India and Africa share a mutual and common past with colonialism, poverty and illiteracy being difficulties both had to face. The India-Africa relationship originated in the 16th century commencing with trade and in the modern century these relations are still growing strong (ANON, 2011). The interactive relationship between India and Africa is a natural synergy for building affiliations. The Indian Technical and Economic Cooperation (ITEC) has initiated a bilateral program to benefit both India and Africa with financial support and mutual cooperation. The focus of this program has shifted since the 1990's to improve Indo-African economic, education and technical operations. In the modern day Indo-African relations have gone beyond trade and investments to sharing of skills, knowledge and technological transfers developments (ANON, 2011). Strategies on government and private sector level are implemented to improve the progressive partnership between India and Africa. Ensuring continues improvement in Indo-Africa relations the India-Africa Forum Summit was started in 2008 in New Delhi. The second summit was held in October 2011 in Addis Ababa, Ethiopia. These India-Africa Summits play an important role in the relationship between India and Africa (ANON, 2011).

The involvement of Chinese and Indian firms in Africa cannot be defined accurately mainly due to weaknesses in data. Observers indicate that recent FDI flows to Africa is being dominated by Chinese and to a lesser extent Indian firms. This does not change the fact that the majority of African FDI originates from Northern firms, that include the United States and European Union (Broadman, 2011). The Indo-Africa trade demonstrated a growth of 20.87 per cent from 2007 to 2011, rising from US$ 24.98 billion to US$ 53.33 billion in 2011. It is expected that Indo-Africa trade will reach a high of US$ 70 billion by the year 2015 (Schneidman & Lewis, 2012).

During the past two decades FDI has become a great source of economic development for Africa. India's OFDI to Africa plays a significant role in Africa mainly in the services and manufacturing sectors. India's FDI in Africa is the 9th largest source of FDI across Africa. The Indian MNE's are seeking strategic investment opportunities worldwide and especially in Africa (ANON, 2011).

Figure 3. 6: The net flows of Indian FDI to African countries, 2003-2010 (US$ millions)



Source: FDI Markets Database (2012) and Zephyr Database (2012)

Figure 3.6 illustrates that the overall FDI from India to Africa has proportionately increased during the past decade and indicates a rapid rise in 2011 reaching a high of US$ 45 billion. The 2012 data is incomplete and therefore not included. According to an article written by Nyagah (2009) FDI flows from India to Africa have expanded geographically and have increased by 837 per cent. Indian firms are doing business in over 20 African countries in the modern day (Nyagah, 2009). Bhattacharya (2011) states that the steep rise in Indian FDI in Africa indicates that Indian companies see potential in the African market; this may even be the market of the future.

According to Nyagah (2009) Mauritius was the main host of Indian FDI in 2007, which accounted for almost 70 per cent of all FDI flows to Africa originating from India. Nyagah (2009) also indicates that East Africa attracted the most Indian FDI, North Africa second most with oil and gas sectors being a high attraction and West Africa attracted around 8 per cent. Southern Africa attracted the least Indian FDI in 2007, but the Indian investment flows to this region is increasing due to industry growth in mining, steel, pharmaceuticals and automotive industry. Indian companies show a great interest in these industries and have increased investment deals supporting the growth of Southern Africa region. Researchers also claim that the increase of Indian FDI in this region is due to the fact that South Africa is seen as a gateway to Africa (Nyagah, 2009). This statement is a very debateable topic and one that can be explored in further studies.

The trend of Indian companies mainly follows the route of acquisitions by private role-players (Bhattacharya, 2011). Bhattacharya (2011) states that Reuter's data indicates that Indian acquisitions made out a third of all acquisitions (in terms of value) in Sub-Saharan Africa in 2010. Worldwide companies recognise the potential in African

markets, this can be a new era for African markets. The question arising is whether or not Africa will deliver on their much identified potential.

The Indian FDI flowing to Africa can be to Africa's advantage in different ways, it is supporting Africa to become a processor of commodities and since Indian companies are operating in world class standards it can assist and support African markets to be more competitive and integrate with advanced markets (Nyagah, 2009).

3.3.2.1 India's total OFDI to Africa compared to India's global OFDI

The Indian economy demonstrates an active increasing integration with the world economy that is mainly supported by its increase in FDI inflows as well as outflows (Gopalan & Rajan, 2009). There is a lack in accurate Indian FDI data, the current available data is sketchy and the value of the OFDI to different countries can rarely be determined at a significant level; since this data is not publically available on a systematic time series basis (Gopalan & Rajan, 2009).

India has a scarcity of raw materials and therefore the majority of OFDI is aimed at acquiring needed raw materials (Subramanian *et al.*, 2010). Indian companies focus their OFDI on sectors where they have expertise and skills that include sectors such as the information technology and information technology services sectors. Using its knowledge, expertise and capabilities India creates an advantage for itself by acquiring new clients at lower costs and improves its stock market position (Subramanian *et al.*, 2010).

According to the study done by Subramanian, et al. (2010), Indian firms mostly enter a market by acquisitions and are market seeking FDI. Europe and Asia account for the majority of Indian OFDI, with Africa attracting 9 per cent of Indian OFDI. The majority of Indian FDI to Africa is in the petroluem industry (Subramanian *et al.*, 2010).

The overview of India's OFDI indicate that India strategically aligns its strong points to its advantage in order to gain the benefit from its FDI outflows. India targets countries where it have the competitive advatage, such as countries that are weaker with information technology or telecommunication services than India. This way India is able to supply high quality services with lower cost than the local markets can afford. Africa currenly owns a small portion of Indian OFDI that is mainly in the petroleum industry.

The statements around India OFDI are based on studies that have been done. This study also analyses the figures to identify in which sectors India is mainly interested in,

in Africa and also which African countries. The following sectoin includes an overview of the major sectors that Indian FDI flows to in the African markets.

3.3.2.2 African Sectors

Investigating all the researchers' opinions it is a mutual opinion that the majority of Indian investments in Africa are in the natural resource sector. This may be the majority but countries such as China and especially India are involved in other sectors as well and are claiming that they are making a difference in Africa. They are investing in sectors such as telecommunication, financial services, food processing, manufacturing, infrastructures and tourism sector. This is supported by a statement from Boardman (2011) who says that even though most of Indian and Chinese investments in Africa are natural resource based; the current data indicates that MNE's are diversifying into other sectors.

Indian MNE's in Africa tend to be in the private sector, they primarily acquire existing firms and help to encourage engagements in vertical integration improving the African socioeconomic network (Broadman, 2011). Data indicates that Indian as well as Chinese firms have many similarities with regards to their African operations. The increasing presence of the Chinese and Indians in Africa seems to have a positive correlation with trade as shown in Africa's exports (Broadman, 2011).

Table 3.7 indicates that most of Indian FDI flows are to the natural resource industries, such as petroleum, coal, oil and gas. Most of the mergers and acquisitions are in the resource sector, while the Greenfields FDI includes the private sector. The featuring of the sectors such as computer software, information technology and telecommunication motivates the fact that India focuses on sectors in which it has a competitive advantage. These sectors are also to Africa's advantage since FDI may lead to knowledge as well as skills transfers into the African market.

Table 3. 7: Top African sectors receiving FDI from India, 2003-2012 (US$ millions)

Rank	M&A	US$ Millions	Greenfields	US$ Millions
1	Extraction of crude petroleum	0.76	Coal, Oil and Natural Gas	22 409
2	Other telecommunications activities	0.70	Chemicals	7 431
3	Mining of other non-ferrous metal ores	0.35	Metals	5 065
4	Mining of hard coal	0.13	Food and Tobacco	2 303
5	Translation and interpretation activities	0.08	Automotive OEM	1 402
6	Manufacture of pharmaceutical preparations	0.07	Communications	1 234
7	Manufacture of other chemical products	0.07	Alternative/Renewable energy	875
8	Manufacture of fertilisers and nitrogen compounds	0.04	Hotels and Tourism	824
9	Other manufacturing	0.03	Plastics	757
10	Television programming and broadcasting activities	0.03	Computer software and information technology services	525
	Grand Total	**2.25**	**Grand Total**	**42 25**

Source: FDI Markets Database (2012) and Zephyr Database (2012)

Large investments have been made in the telecommunication industry with Indian firm Bharti Airtel buying Zain Africa for US$ 10.7 billion in 2010. The other large investments is in Indian companies establishing themselves in Africa and very significantly in South Africa with companies such as Tata motors, Mahindra Group, Cipla and Ashok Leyland (Schneidman & Lewis, 2012). The following section provides an overview of the African countries India mainly invests in.

3.3.2.3 Target countries

The top African countries that receive FDI from India are mostly correlated with countries that have high levels of development and larger GDP values. These countries are also part of the top FDI recipients of FDI in Africa from across the globe. Nigeria receives the majority of India's Greenfield FDI to Africa with the majority being in the coal, oil and gas sectors (Nyagah, 2009). Nigeria is known for its abundant resources in the oil industry and it is expected that Nigeria will become one of the largest economies in the world due to its rich oil resources. Large amounts of Indian FDI also flow to the chemical industry in Nigeria. Mozambique and Egypt also indicate large Indian FDI inflows and the major sectors also include coal, oil, gas and chemicals (Nyagah, 2009). Zimbabwe's metal sectors attract the majority of Indian FDI in this country, while South

Africa's coal, oil, gas and metal industries attract the most of Indian FDI (Nyagah, 2009). Observing the top five African countries that attract Indian Greenfields FDI, it can be summarised that this is mainly in the natural resource rich countries.

Table 3. 8: Top 10 African countries that receive FDI from India, 2003-2012 (US$ millions)

Rank	M & A	US$ million	Greenfields	US$ millions
1	Sudan	0.76	Nigeria	10 470
2	South Africa	0.72	Mozambique	7 125
3	Zambia	0.5	Egypt	4 228
4	Mauritius	0.12	Zimbabwe	4 068
5	Mozambique	1	South Africa	3 907
6	Tunisia	0.07	Kenya	3 702
7	Morocco	0.04	Zambia	3 206
8	Nigeria	0.03	Ghana	1 912
9	Kenya	0	Cameroon	1 907
10	Togo	0	Ethiopia	608
	Grand Total	3.239	Grand Total	41 133

Source: FDI Markets Database (2012) and Zephyr Database (2012)

Table 3.8 indicates that Sudan receives the highest amount of Indian M&A in Africa, with the majority going to the petroleum industry. M&A investments taking place in South Africa are mainly in the metals and telecommunications industries. In Zambia Indian firms have merged with some of the telecommunication companies; this is reported as Zambia's highest sector of Indian M&A's. Mauritius is known to be a gateway for financial service, because of its low tax burdens. India mainly invests in machinery and financial services. The Indian mergers taking place in Mozambique are mainly to acquire hard coal.

The overview of the African countries and sectors India invests in indicates that a large amount goes to natural resource sectors, but also to the increasing private sector. The results from most researchers' data confirm that most African investments are in the resource industry, but the data also indicates a change in behaviour. India seems to be interested in the private sectors as well as the infrastructures in Africa.

3.4 Summary

This chapter concluded the trends in FDI on a global level, regional level (Africa) and region to region level (India to Africa). The first section analysed the global FDI flows that indicated the rising stock of FDI in the world. Between the year 1990 and 2010 FDI flows and stock increased across the globe. The reasons for this increase vary and the changing environment motivates a lot of changes in FDI. The determinants of FDI flows to a country are not only dependent upon the conditions of trade and investment but also on factors such as market size, growth rates, skill and technological transfers. These factors indicate a significant role. These determinants were explained in Chapter two. The majority of global FDI is taking place in the form of Greenfields FDI. This indicates the significantly important role that foreigners are starting to play in a country, especially the source countries of FDI in Africa. The FDI flows demonstrated some changes that is highlighted by the fact that developing and transition economies are starting to attract the majority of FDI flows world-wide. In the past most FDI flows was only between developed regions but in the modern economy the developing regions such as India and China are playing a more significant role. Africa also indicates a rising role in FDI flows and some changing perspectives.

Understanding the African market is rarely achieved, this is a very complex region with most investors having the perspective of a risky environment. Africa currently has some of the fastest growing economies and its ROI is higher than most regions. Africa not only poses risk but also large potential and opportunities. This region demonstrates unexpected rises in FDI and it is claimed that this level of FDI will increase during the next decade. Africa is rich in natural resources which is to its advantage but also indicates problems since natural resources has volatile prices and are extractable. Resource requires management and maintenance in order to avoid misuse and depletion. Researchers and analysts claim that the majority of investment in this region is due to the fact that foreigners want access to Africa's resources. The data also indicated that African countries that are rich in oil, gas and coal attract the majority of FDI. Other sectors such as infrastructure, services and telecommunication are also starting to play a prominent role. The increasing FDI to Africa is also leading to more jobs creations, development, skills and technology transfers.

The source countries of FDI in Africa are starting to be dominated by the Asian economies that are an essential source of FDI in Africa, even though the European Union and United States are still the dominant investors in Africa. India is one of the

countries that is playing a significant role and increasing its involvement in the African region. Indian firms have been doing business in Africa for over 20 years. The current increases illustrate the fact that India sees the potential in Africa. India is expected to be the second largest economy in 2050 and claims to increase its involvement in Africa not only in trade but also in investments. In the year 2010 a third of all acquisitions made in Sub-Saharan Africa were done by Indian firms. This is in terms of the total value of deals. Indian firms mostly enter the market in the form of acquisitions, even though Greenfields FDI indicated the greatest value. The main sectors that indicate Indian investment include the resource sector as well as some service sectors. Current data also indicates that Indian as well as Chinese firms are diversifying its investments in Africa in sectors such as infrastructure, information technology, computer software, services and telecommunication. Indian Greenfields investments are mainly taking place in the private sectors.

The Indo-Africa relation is beyond just investments and trading, in modern economy it is also sharing skills, knowledge and technological developments. The influence of India with its world class standards can place Africa in a more international competitive position and supports the development and growth in the African markets.

The influence of India can be summarised as resource-seeking FDI with changes being seen. The private sector is playing a more prominent role in Indian FDI flows to Africa and also indicates advantages. India is becoming the second largest economy in the world and its increasing positive influence in Africa seems to be an advantage to the development and growth of the African markets. The management and maintenance of the influence and roles that countries such as India play in Africa is essential.

CHAPTER 4: AN EMPIRICAL ANALYSIS

Studies done on Indian FDI in Africa are fairly scarce and one of the objectives of this study is to overlap this gap. This study aims to profile the Indian FDI determinants in Africa.

Chapter two identified natural resources, market size, political instability, macro-economic instability, weak policies, inflation, good governance, investment, GDP, growth, openness and oil production as significant determinants of African FDI. This chapter investigates which of these determinants are applicable to India's FDI in Africa. Chapter 3 demonstrated the trend in the FDI market especially the trend of FDI from India in Africa. The FDI flows from India in Africa is steadily increasing and specifically in the oil sector. India also claims that its interest in Africa is estimated to increase in the future.

This chapter identifies the methodology and specifications to profile the exact determinants of Indian FDI in Africa. For the purpose of this study the methodology that is used is the Structural Equation Method (SEM). The method includes a model that is done in two parts. This includes a factor analysis and regression model. Different variable groups are tested with the specified method. The various variable groups include micro- and macro-economic factors, risk factors, global factors and good governance factors.

This chapter tests the theory of FDI determinants and identifies which determinants are applicable to Indian FDI in Africa. Some objectives are set to align with the aim of the chapter. The first objective is to identify the variables with significantly weighted influence in the variable groups. The second objective is to determine the linear relationship between the significantly weighted variables and Indian FDI in Africa. The third objective is to profile the specific variables that indicate a significant influence on Indian FDI in Africa. These objectives are reached by estimating the SEM models using SPSS AMOS. The AMOS User Guide written by Arbuckle (2011) is used as the main source because it supports the specific method that is followed as well as the program used for the estimates.

The following sections include the methodology, specifications, data descriptions and the estimated models. The estimated models are illustrated and interpreted separately. The concluding results follow in the summary.

4.1 Methodology

The majority of economic papers testing the determinants of FDI use the basic regression models or panel regression models. This study makes use of SEMs. The reason for using SEM instead of regression is because of the characteristics that SEM allows above a regression. This includes the allowance of multiple dependent variables, the fact that variables may correlate with one another and also the fact that SEM accounts for measurement of error, where regression assumes perfect measurement. Another differentiator is that regression analysis uses time series data, while SEM uses observations of the FDI deals and the value of the deals. This is in line with the purpose of this study, which is to accurately profile the determinants of Indian FDI Africa; taking the limited and weak data into account.

SEM is a general statistical modeling technique that is used to determine the relationship among variables. This technique tests whether or not the recorded theory matches the model, thus it can be classified as a confirmatory technique. It is mainly theory driven and not data or empirically driven. The theory that is stated in Chapter two is tested with the purpose of identifying the fundamental determinants of Indian FDI in Africa. SEM is a combination between factor analysis and multiple regressions. It tests the measurement and structural relationship of variables simultaneously. The SEM technique can be done in a variety of manners; this study uses SPSS AMOS to test the theory with the SEM model.

The basis of a SEM model is covariance that tests the strength of the association between the variables. This helps to understand the pattern of correlation among the variables in the model and explains as much of the variable's variance as possible with the specific model. Every theory or model describes the correlations and why it is correlated. The models that are estimated indicate the factor groupings with a factor analysis as well as the correlation between the different factors. Another set of models determines the linear relationship between variables and FDI as well as allows for correlation among the independent variables.

4.1.1 Measures of goodness of fit for models

There are three different types of SEM specifications that include Confirmatory Factor Analysis (CFA), path analysis with observed variables and path analysis with latent variables. This study uses the CFA method because it is more deductive than inductive. This implies that it is a more logical approach since it is a bottom-up strategy that

indicates that conclusions are derived empirically. A top-down approach is a strategy where a conclusion is developed based on theory. The SEM is estimated based on the theory provided in Chapter two. These models are the empirical part and depending on the goodness of model fit the conclusion is derived from the empirical models (Arbuckle, 2011).

To ensure that a model is acceptable to use, the degree of model fit should be established. According to Arbuckle (2011) there are two main classes of model fit, namely absolute fit and relative fit. The absolute fit of the model can be established by observing the Chi-square, root mean squared error of approximation (RMSEA) and goodness of fit (GFI). These indices define the ability of a model to duplicate the covariance matrices. The specific method that is used in this study, that includes the comparison of models that contains the same data, makes the interpretation and model fit levels very important. Comparing two models is done by observing the absolute fit as well as the relative fit. The relative fit of a model is established by a comparison between theoretical model and a baseline model. The baseline model is standard with no relationship among variables; therefore the relative fit of a model will indicate whether or not the estimated model is better than a model with no correlation between variables. Hence the estimated and baseline (theoretical) model are compared with one another. This is fairly important to the study since most of the factor analyses done contain highly correlated variables. The Normed Fit Index (NFI), Incremental Fit Index (IFI) and the Comparative Fit Index (CFI) are mostly used to indicate the relative fit of a model (Arbuckle, 2011).

The measurement of fit based on Chi-square indicates the hypothesis that the covariance matrices are equal, in other words how much the implied covariance differs from the sample covariance. "*You can use the Chi-square statistic to test the null hypothesis that the parameters required to have equal estimates are really equal in the population*". That is according to Arbuckle (2011:53). The ideal Chi-square should have a value of around zero, but this is not always possible since the implied covariance and sample covariance cannot be expected to be identical. Thus it is acceptable if the Chi-square value is as close to the degrees of freedom as possible. If data contains missing values the Chi-square, which is very sensitive to sample size, cannot be used for interpretation but rather the probability must be used for interpretation. If the Chi-square's probability is non-significant in other words bigger than 0.5 it indicates a good fitting model.

Arbuckle (2011), states that a RMSEA value of 0.05 or less is acceptable and indicates a close fit model in relation to the degrees of freedom. The figure cannot be regarded as reliable or correct but it is a reasonable value. The ideal value is as close to 0 as possible. Models that indicate a value of 0.10 also indicate an acceptable fit, but not a good fit (Arbuckle, 2011).

The baseline comparison fit measure includes the NFI, IFI and CFI, and indicates if the estimated model is a better fit than the base line model. The value is reported between 0 and 1, where 0 indicates a bad fitting model and 1 indicates a perfect fit. A good fitting model in this case does not necessarily mean that the model is acceptable and therefore the absolute indices are also taken into account (Arbuckle, 2011).

4.2 Specifications

In order to identify the determinants as accurately as possible, variable groups are established and processed in a factor analysis. This allows identifying the factors with the most significant influence and higher weights more accurately. The variable groups consist of micro-economic factors, macro-economic factors, risk factors, political factors (good governance) and global factors. Section 4.3 stipulates the variable groups and what each group consists of. The factors that are identified in the factors analysis are the factors that are used to be tested as determinants of Indian FDI in Africa. The risk factor analysis is estimated first in order to determine the main risk areas that require focus in the estimation of the determinants.

The factor analysis is followed by a regression model that tests the structural relationship between the estimated determinants and the population of FDI deals as well as the value FDI inflows. The determinants of Indian FDI in Africa are correctly identified by testing the relationships separately in the different variable groups. This allows for more accurate correlation between variables. By placing variables in an appropriate group, variables that create instability in the model can be identified and removed from the analysis.

The empirical analysis is done in steps. The factor analysis removes factors with low weights that do not indicate a significant influence, while the regression analysis identifies the variables that have a significant influence on Indian FDI in Africa. The process that is followed allows for accurate results and eliminates problems with high correlation between variables. The method and specification of the empirically study

supports the identifying of determinates of Indian FDI in Africa and whether it is mostly market, efficiency or resource seeking FDI.

4.3 Data Specification

SEM is a large sample size technique that is dependent upon the complexity of the model and the data quality. The data includes African countries that are stated in Appendix 1. There are weaknesses in the available data and therefore some countries and years are excluded. The data is tested in SPSS AMOS before estimation and accordingly weak and incomplete data are removed.

The SEM model includes two different types of variables namely exogenous and endogenous variables. Exogenous variables are variables with unknown causes, a variable that explains other variables and is the independent variable. These variables are allowed to correlate with one another. The endogenous variable is the dependent variable and in some models also the independent variable.

Table 4. 1: Variable group specifications

	Risk factors	**Macro-economic factors**	**Micro-economic factors**	**Global factors**	**Political factors (Good governance)**
1.	Tax policy risk	Infrastructure	Market growth	Agricultural prices	Political stability
2.	Security risk	Market openness	Price changes	Copper prices	Government effectiveness
3.	Political stability risk	Exchange rate	Level of skills	Crude price	Voice and accountability
4.	Macro-economic risk	Exports	Tax	Gold price	Regulatory quality

Table 4. 1 (Continue): Variable group specifications

5.	Legal and regulatory risk	Budget deficits	Labour cost	Precious metals price	Rule of law
6.	Labour market risk	Political Stability	Market size		Control of corruption
7.	Infrastructure risk		Government Policies		
8.	Government effectiveness risk				
9.	Foreign trade and payments risk				
10.	Financial risk				

Source: Authors own compilation (with reference to chapter 2)

Table 4.1 indicates the exogenous variables that are tested on the endogenous variables that include the amount of FDI deals and the value of FDI deals. In the following sections detail is provided that describes each of the variable groups and their different variables, according to Table 4.1. The variable groups include the risk factors, macro- and micro-economic factors, good governance factors and global factors.

4.3.1 Risk factors

These risk groups are compiled by a variety of factors that are based on the Economic Intelligence Unit's (EIU) operational risk model. The risk factor groupings are illustrated in Table 4.1. That data includes 42 African countries that vary over the period of 2002 until 2012[11].

[11] Note due to data limitations the following countries were excluded from the data set:Democratic Republic of the Congo, Liberia, Sierra Leone, Djibouti, Comoros, Guinea Bissau, Somalia, Mauritania, Mali, Central African Republic and Niger

4.3.2 Macro- and micro-economic factors

The macro and micro-economic factors that determine FDI are obtained from the World Development Indicators on The World Bank database. The data includes the period 2003 until 2011[12]. The macro and micro-economic factors are stipulated in Chapter two according to theory. The variables that are used are proxy variables that represent the theoretical factors. Table 4.2 illustrates the macro-economic variables that are included in the empirical analysis and the proxy variables that are used for the variables.

Table 4. 2: Macro-economic variables

Variable	Proxy variable
Infrastructure	Telephone lines (per 100 people)
Market openness	Trade (% of GDP)
Market size	GDP (current US$)
Exchange rate	Official exchange rate (LCU per US$, period average)
Exports	Exports of goods and services (current US$)
Budget deficit	Budget balance (% of GDP)
Political stability	Political stability (world bank good governance data)

Source: Authors own compilation (with reference to chapter 2)

Table 4.3 illustrates the micro-economic variables and the proxy variables that are used in the empirical analysis.

Table 4. 3: Micro-economic variables

Variable	Proxy variable
Market growth	GDP growth (annual %)
Price changes	Inflation, consumer prices (annual %)
Market size	Population growth (annual %)
Level of human skills	School enrollment, secondary (% gross)
Tax	Budget revenue (% of GDP)
Labour cost	Labour force participation rate, total (% of total population age)
Government Policies	Rule of Law (World Bank good governance data)

Source: Authors own compilation (with reference to chapter 2)

4.3.3 Global factors

Modern economic conditions in Africa are highly influenced by increasing global economic integration. The global economic conditions are volatile to events that occur in key countries. The 200/2008 global economic crisis is an example of the one key

[12] Note data from the year 2012 is excluded due to incomplete data

country (United States) influencing the economic conditions worldwide. The volatility in global economic conditions can be identified in commodity prices across the globe, since these prices are highly influenced by economic conditions. This study includes worldwide commodity prices as variables in order to control for the influence of global economic conditions on FDI flows.

The variables are chosen according to the comprehensiveness of data availability. These factors that are included consist of commodity prices that are recorded monthly by The World Bank. The prices that are used include agricultural, copper, coal, crude, gold and precious metals. The data is in current US$ and stretches over the period 2003 to 2011.

4.3.4 Good governance factors

The Worldwide Governance Indicators consist of six dimensions of governance. These include voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption. The data is constructed by The World Bank and is based on thirty different data sources that report the perceptions of governance. This is concluded by surveys and expert assessments worldwide that are done by enterprises, citizens and expert survey respondents in industrial and developing countries. The purpose of the data is to provide a more defined perspective on the quality of the governance. According to Kaufmann, Kraay and Mastruzzi (2010:3) governance can be defined as: "*the traditions and institutions by which authority in a country is exercised. This includes (a) the process by which governments are selected, monitored and replaced; (b) the capacity of the government to effectively formulate and implement sound policies; and (c) the respect of citizens and the state for the institutions that govern economic and social interactions among them*". The six good governance indicators are used to represent each of these three areas.

The good governance factors represent the extent of Africa's high corruption levels and unstable political conditions on FDI flows. This study clarifies the perception of Africa's governance levels and the factors that play an influential role in investors' decisions to invest in Africa.

4.3.5 FDI factors

The FDI variables are obtained from The World Bank database and the FDI Markets database. The FDI deals are obtained from the FDI Markets database and include the volume of Indian deals; it includes observations according to the deals. This study does not account for time series; it includes the behaviour of FDI deals. The investment variable consists of the total value of all FDI deals per year. This data is collected from The World Bank database for the period of 2002 until 2012. It should be noted that there is weakness in the data and not all data is recorded. The total investment amount does not include M&A deals, only Greenfields deals are accounted for.

The following section illustrates the estimated model per variable group. That includes risk estimates, global estimates, political estimates and micro- and macro-economic estimates. Each variable group consists of a factor analysis as well as a structural regression analysis.

4.4 Estimated Models

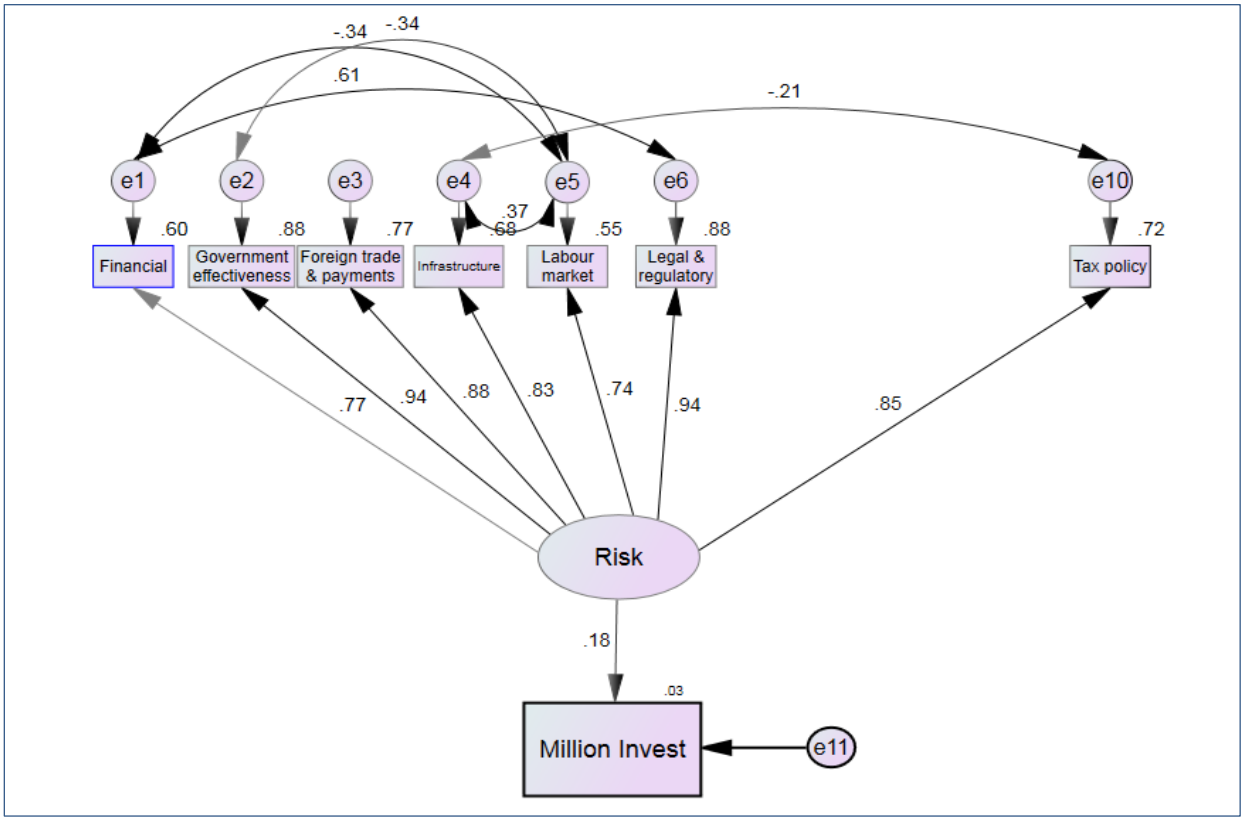
4.4.1 Risk estimates

Investments are influenced by a variety of risk factors in a specific country. A risk factor analysis is done to identify the risks that play the most prominent role in India's investment choice. The model includes the value of FDI deals from India in Africa in order to identify any correlation with the risk factors and also to control for FDI's influence on the risk factors. The factor analysis indicates the risk variables that indicate a significant and highly weighted influence. Only factors with a weight above 0.7 are included. Factors with weight under 0.7 are excluded from the model in order to make the model a good fitting model.

Figure 4.1 illustrates the risk factor analysis. Financial, government effectiveness, foreign trade and payments, infrastructure, labour market, legal and regulatory and tax policy are the elements of the risk cluster. These elements indicate a significant influence on the risk factor. Some of the risk factors are highly correlated with each other, hence the model allows for correlations. Allowing for correlation eliminates instability in the model. The arrows connecting the error term indicate the factors that are correlated with one another; this is portrayed in Figure 4.1. Finance is correlated with labour market and legal and regulatory, while government effectiveness indicates correlation with the labour market. The infrastructure is correlated with tax policy, which indicates that the level of taxes in a country influences the state of the country's

infrastructure. The infrastructure is also correlated with the labour market, in other words the better and more efficient the labour market is, the better the infrastructure. The different risks in a country tend to influence one another and are highly dependent upon each other.

Figure 4. 1: Risk factor analysis



Source: Author's own calculation

Table 4.4 illustrates the model fit indications that point to a good fit. The Chi-square is high, but taking into consideration the degrees of freedom it indicates an acceptable value. The CMIN/DF value of 2.9 indicates an acceptable model even though not perfect. A perfect model cannot be excepted since the data does have weaknesses. The RMSEA also indicates an acceptable model, since the value is under 0.10. The NFI, IFI and CFI indicate a better fitting model than the default model with no correlation between variables

Table 4. 4: Model fit indications for risk factor analysis

Measurement factor	Value
Chi-Square	44.09
Degrees of freedom	15
RMSEA	0.087
CMIN/DF	2.939
NFI	0.978
IFI	0.985
CFI	0.985

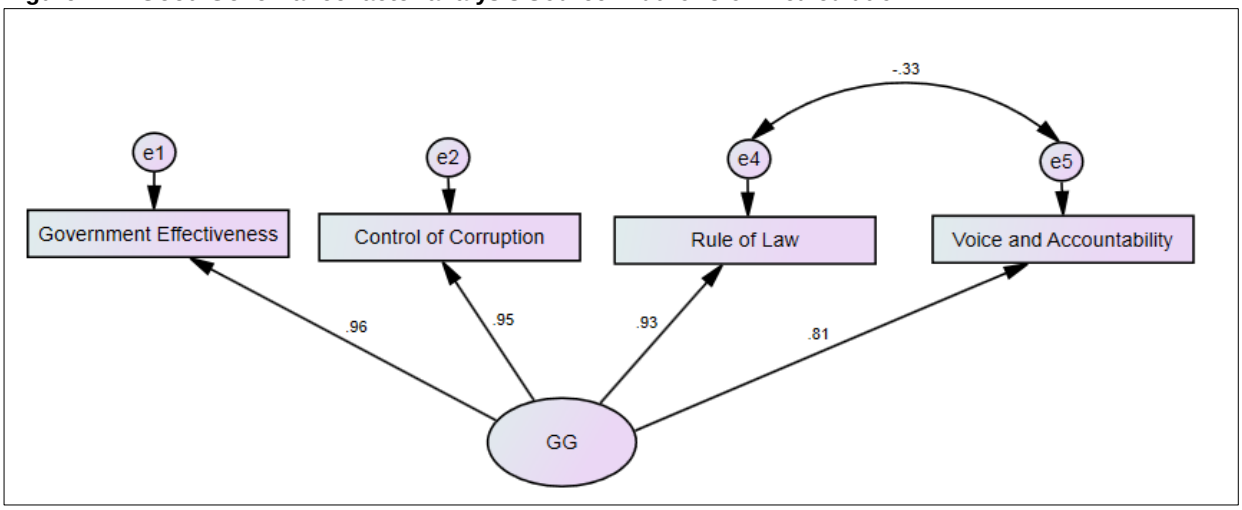
Source: Author's own calculation

From the analysis above, which shows the high weighted and significant risk factors, it can be deducted that financial and political risks play the most significant role on the factors.

4.4.2 Good governance estimates

Good governance factors are used to indicate the political state of a country. This is a significant factor and influential determinant of FDI in all African countries. This is seen by many investors as a distinct determinant due to the high risk in this area. The risk factors analysis also indicates that political risk has a high influence on the risk factors that influence FDI flows. The factor analysis indicates the most significant factors and highest weighted variables, while the regression indicates the linear relationship between the variables and FDI.

Figure 4. 2: Good Governance factor analysis Source: Author's own calculation



Source: Author's own calculation

Figure 4.2 indicates the factors that contribute a significant influence to good governance. Political stability and regulatory quality are excluded from this model due to high correlation with other variables that create instability in the model. The good governance factors that play a significant role include government effectiveness, control of corruption, rule of law and voice accountability. The model allows for voice accountability and rule of law to covariate. These two factors indicate to have a negative influence on one another, in other words the higher the level of rule of law the less voice and accountability is seen in a country and vice versa. Allowing for covariance between factors creates a more reliable and significant model. The weighted influence is high and above 0.7, indicating the level of importance of these factors to the governance in a country. These factors that indicate a significant influence are used further in the study.

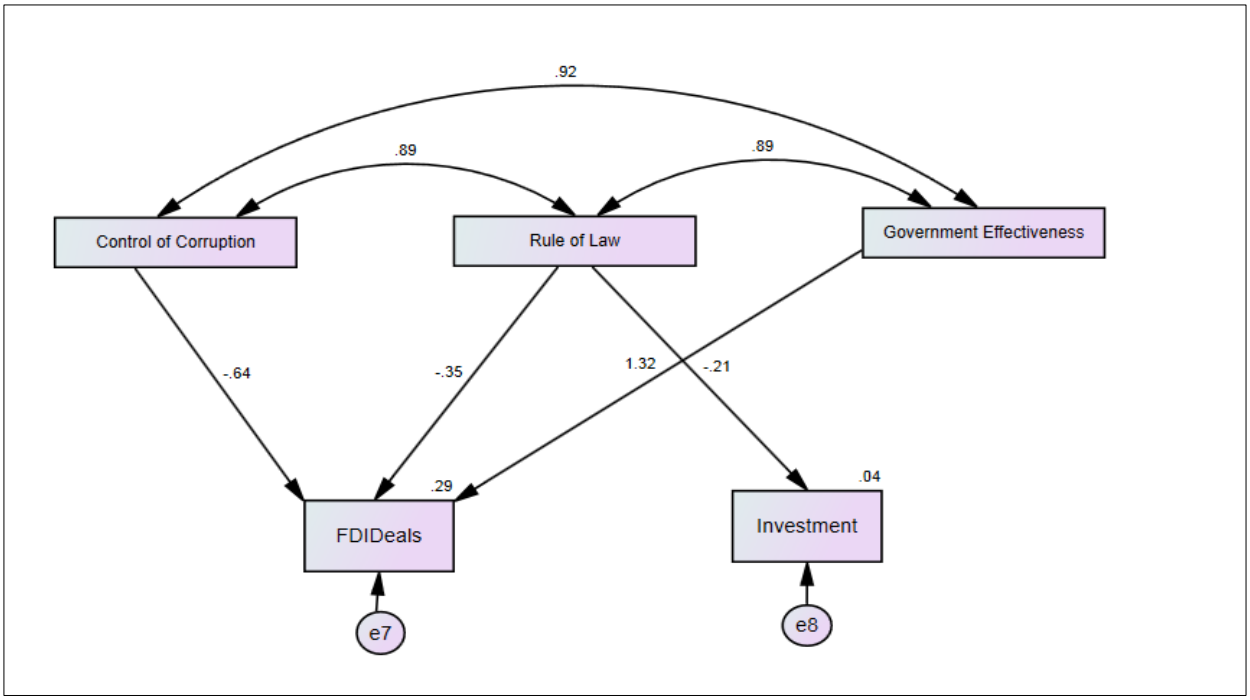
Table 4. 5: Model fit indications for good governance factor analysis

Measurements	Value
Chi-Square	1.93
Degrees of freedom	1
RMSEA	0.059
CMIN/DF	1.93
NFI	0.998
IFI	0.999
CFI	0.999

Source: Author's own calculation

Table 4.5 indicates the measurement factors to determine whether or not the model can be interpreted as a good fit. The Chi-square indicates a good fitting model especially in relation to the degrees of freedom. The RMSEA indicates an acceptable fit, but not perfect. The CMIN/DF allows the Chi-square to account for the degrees of freedom; this value indicates a good fit. The NFI, IFI and CFI indicate a relative good fitting model, since all the values are all close to one. This indicates that the estimated model is a better fit than the base line model. All the measurement factors indicate a good fitting model that is viable to use for interpretation.

Figure 4. 3: Good Governance regression analysis



Source: Author's own calculation

Figure 4.3 indicates the regression model of the good governance factors that influence FDI and FDI values. Control of corruption, rule of law and government effectiveness all have a significant influence on the investor (India) choice to invest in Africa. These factors are significant at the 95 per cent level. Government effectiveness indicates the only positive regression weight, indicating that the more effective Africa's government is the more investors decide to invest. Control of corruption and rule of law have negative coefficients, indicating that high levels of corruption and strict laws to adhere to lead to a decrease in amount of FDI deals. The rule of law is the only significant variable that indicates a significant influence on the amount that is invested. The influence is shown by a negative regression weight that indicates the higher the level of rule of law an investors needs to adhere to, will lead to a smaller amount to be invested.

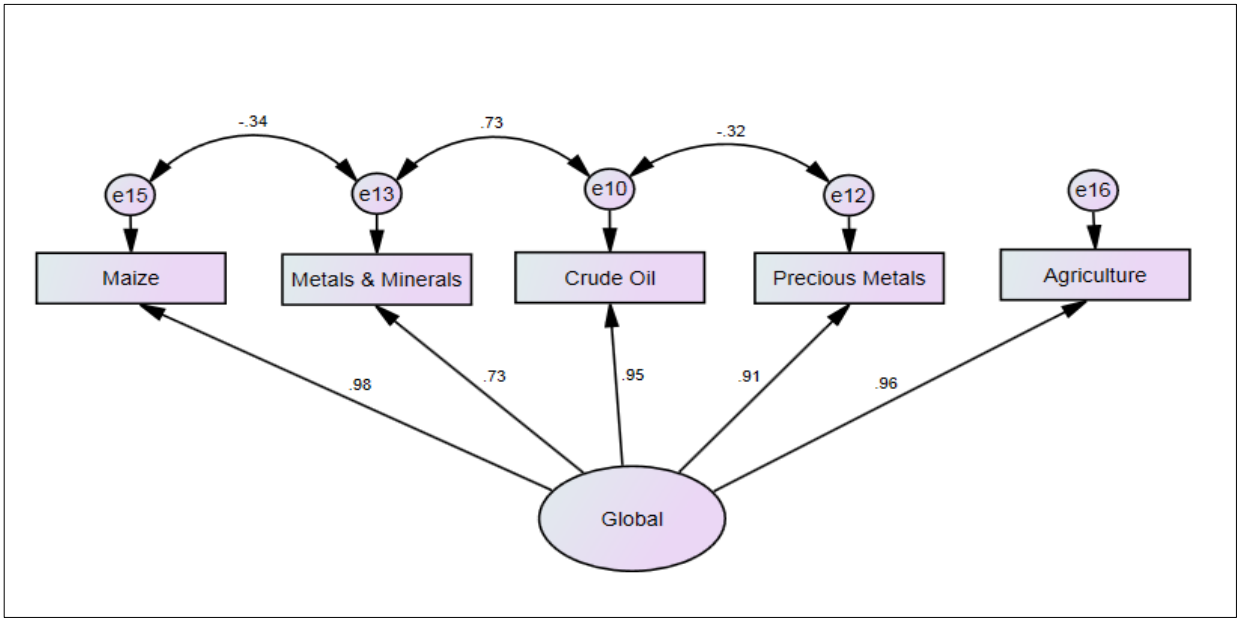
The regression model on the amount of FDI deals that indicates the factors that influence India's choice to invest in Africa has an R^2 of 0.29 that indicates a good model but not perfect. The regression done on the value of FDI indicates the good governance factor that influences the amount of Indian FDI in Africa has an R^2 of 0.04 that indicates a good fitting model. It is important to note that the unit of measure does not influence the standardized regression weights.

4.4.3 Global estimates

The global estimates allow for a control measure of influence of FDI flows that is not explained in the risk factors, micro- and macro-economic factors and good governance factors. The global estimates contain the prices of the specific commodities. The significant global estimates are identified by the factor analysis and the linear relation with FDI is tested with a regression analysis.

Figure 4.4 illustrates the factors that have a significant influence on the global cluster. Gold indicates a high covariance with other variables such as precious metals and copper. This creates instability in the model and therefore these variables are removed to ensure a stable and best fitting model is established and interpreted. The factors that indicate a significant influence include maize, metal and minerals, crude oil, precious metals and agriculture. This indicates that these commodity prices can represent the factor of global influence, in other words, their prices play a significant role in an investor's decision to invest. All factors indicate a weighted influence of above 0.7, indicating the importance of these factors on a global perspective.

Figure 4. 4: Global factor analysis



Source: Author's own calculation

Table 4.6 indicates the measurement factors for a good fitting model. It should be taken into account that the amount of data influences the Chi-square to a great extent, due to higher variances. The global factors consist of a large amount of data, since it is recorded monthly. The Chi-square is high with 6.597, but the CMIN/DF that takes the degrees of freedom into account illustrates that the model has an acceptable fit. The RMSEA also indicates an acceptable fit but not a good fitting model. NFI, IFI and CFI

indicate a relative good fitting model. The model therefore does not indicate perfect results but acceptable results that can be interpreted.

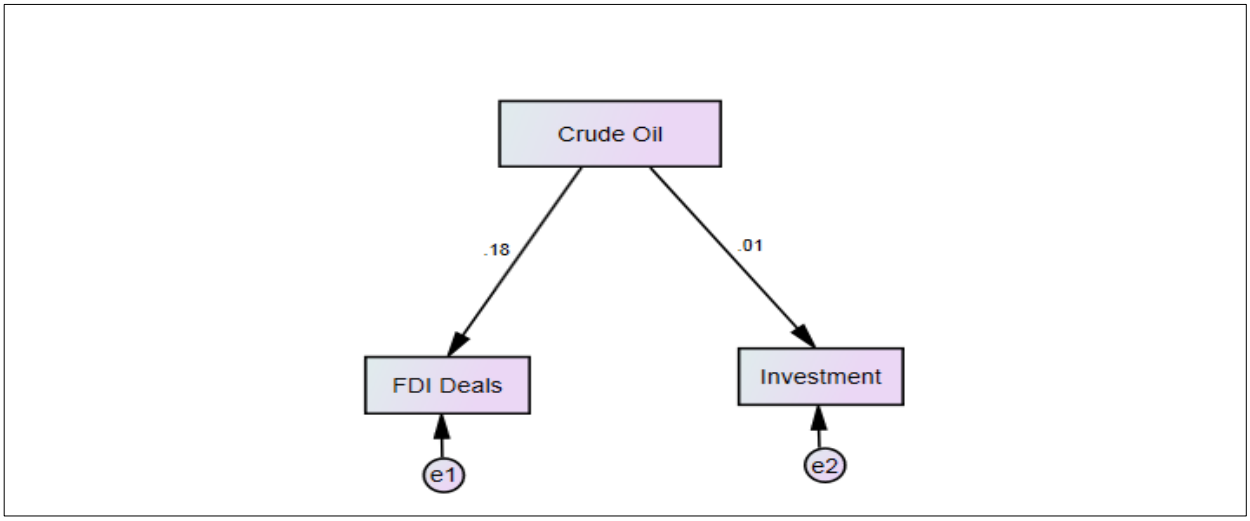
Table 4. 6: Model fit indications for good governance factor analysis

Measurement factor	Value
Chi-Square	6.597
Degrees of freedom	2
RMSEA	0.092
CMIN/DF	3.299
NFI	0.997
IFI	0.998
CFI	0.998

Source: Author's own calculation

Figure 4.5 illustrates the regression model on global factors that influence Indian FDI flows to Africa. Crude oil is the only significant factor that indicates an influence on the amount of FDI deals as well as the amount of the investment. This factor is significant at the 95 per cent level. The regression weights are low and the model indicates weaknesses and therefore the R^2 cannot be calculated. The model can conclude that the price of crude oil plays an important role in Indian investor's decision and level of investment in Africa. This analysis supports the fact that Indian firms mainly invest in the resource sector; especially the oil industry.

Figure 4. 5: Global regression analysis



Source: Author's own calculation

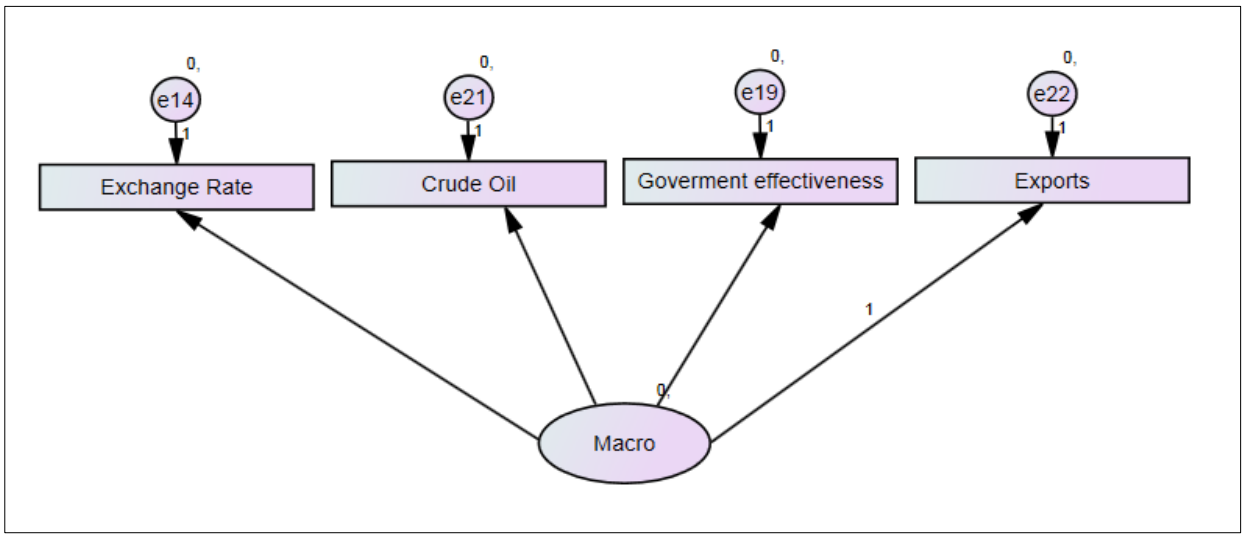
4.4.4 Macro-economic estimates

The macro-economic factors are determined in Chapter two by the theory. These macro-economic factors consist of variables that are theoretically tested to influence

FDI flows. The macro-economic factors with high weights in the factors analysis is used to test the relation with the amount of FDI deals as well as the value of FDI deals.

Figure 4.6 illustrates the factors that indicate a significant influence on the macro-economic cluster. Factors such as infrastructure, trade, GDP and budget balance indicate high correlation with other variables that create instability in the model. Government effectiveness, exports, political stability and crude oil indicate a significant influence on macro-economic determinants. The effects are weak, but significant. It should be taken into account that the data is weak and has some missing values. This concludes that even though the model is weak and is not a good fitting model; the results can still create a meaningful interpretation.

Figure 4. 6: Macro-economic factor analysis



Source: Author's own calculation

The measurement factors illustrated in Table 4.7 indicate a weak model. The Chi-square is above of what is expected, but taking into account the degrees of freedom the model indicates to be acceptable but not a good fitting model. RMSEA is slightly above 0.10 and therefore indicates an acceptable model but also not a good fit. The NFI, IFI and CFI are low but still indicate a better fitting model than the baseline model.

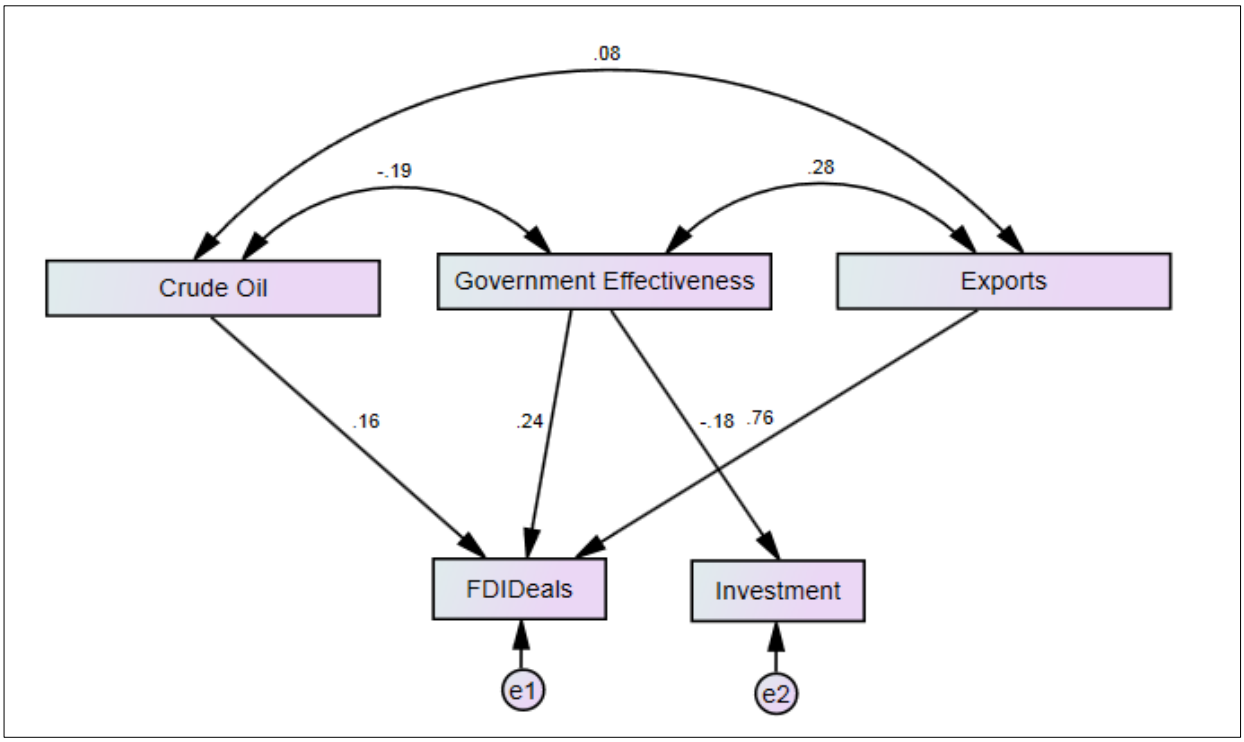
Table 4. 7: Model fit indications for macro-economic factor analysis

Measurement factor	Value
Chi-Square	15.199
Degrees of freedom	2
RMSEA	0.156
CMIN/DF	7.599
NFI	0.821
IFI	0.841
CFI	0.824

Source: Author's own compilation

Figure 4.7 illustrates the regression model of the macro-economic determinants that influence Indian FDI and the level of Indian FDI in Africa. Only the variables that indicate to be significant at the 95 per cent level are included in the model. Crude oil, government effectiveness and exports are macro-economic factors that can be seen as important for Indian investors making the decision to invest in Africa. Government effectiveness indicates to be the only factor that influences the amount FDI that is invested. The determinants also indicate to be correlated with one another. The crude oil prices influence exports of the country and vice versa. Government effectiveness illustrates covariance with exports and crude oil.

Figure 4. 7: Macro-economic regression analysis



Source: Author's own calculation

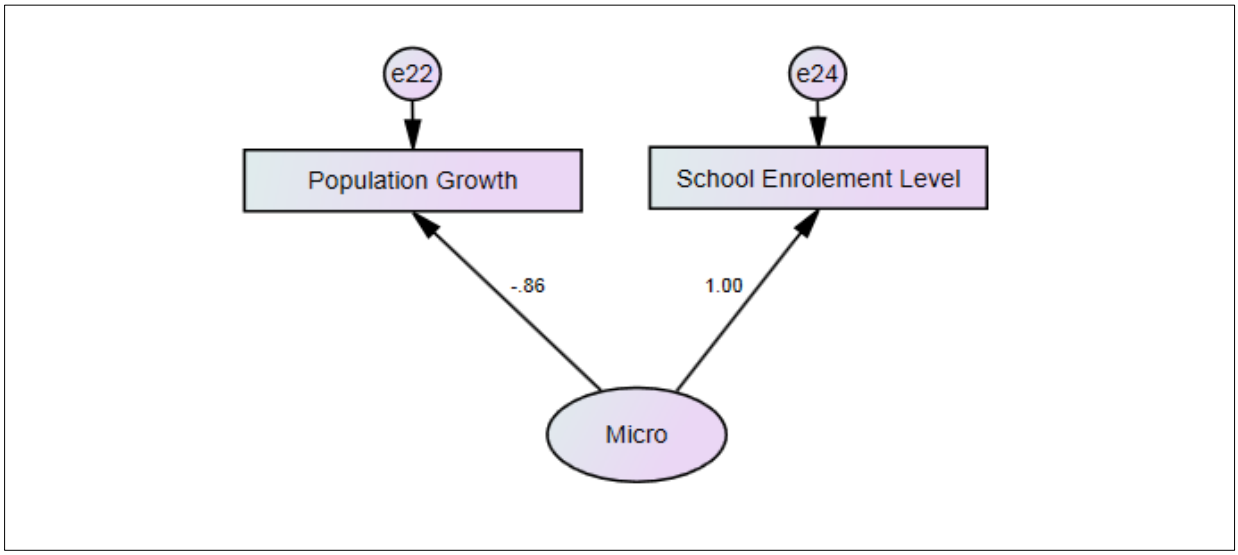
The macro-economic factors highlight the fact of how important the political state of a country is as well as the importance of the crude oil. This supports the importance of political risk as well as the statement that India mainly invests in resource seeking FDI.

4.4.5 Micro-economic estimates

The micro-economic factors are supported by the theory in Chapter two. Only the highly weighted variable of the factor analysis is included in the regression model in order to determine the most important, significant variables of FDI deals as well as the value of FDI deals.

Figure 4.8 illustrates the factor analysis that includes all the significant factors. Population growth that represents the market size of a country and the school enrolment level that represents the level of skills indicate to be the significant factors that contribute to the micro-economic cluster. Factors such as GDP, inflation, budget revenue and labour force participation cause weaknesses in the model and therefore these variables are excluded from the analysis.

Figure 4. 8: Micro-economic factor analysis



Source: Author's own calculation

The micro-economic factor analysis's model fit indications are illustrated in Table 4.8. The measurement factors indicate a near to perfect model. The Chi-square is 0 as well as the degrees of freedom. The RMSEA is just above 0.5 and therefore close to a good fitting model. The NF, IFI and CFI indicate that the estimated model is better than the base model. The good results are mainly due to only including the significant variables as well as the fact that only two variables are included.

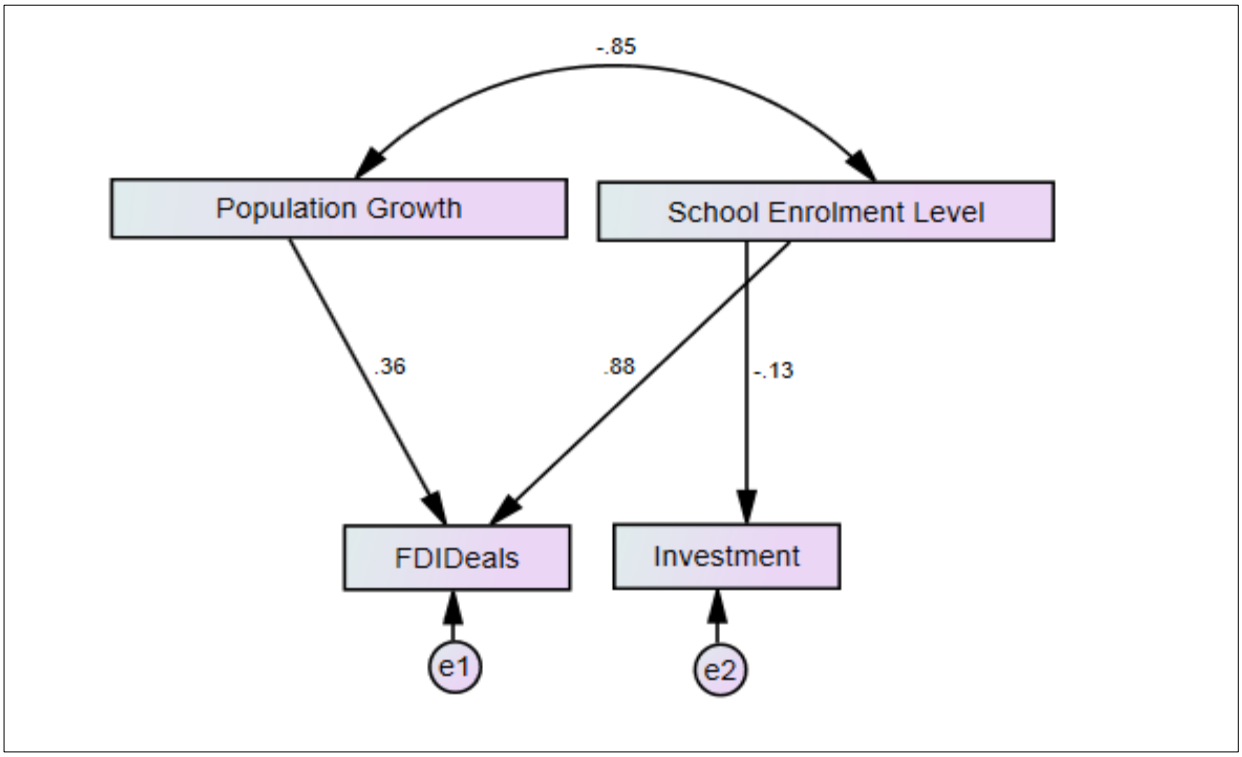
Table 4. 8: Model fit indications for micro-economic factor analysis

Measurement factor	Value
Chi-Square	0
Degrees of freedom	0
RMSEA	0.519
CMIN/DF	0
NFI	1
IFI	1
CFI	1

Source: Author's own calculation

Figure 4.9 illustrates the results of micro-economic factors that influence FDI and the level of FDI flows to Africa from India. Both population growth and the level of school enrolment indicate a significant influence at 95 per cent, on the decision for Indian firms to invest in Africa. In other words the more population growth is identified and the higher the level of school enrolment the more Indian investors will decide to invest in Africa. School enrolment is the only significant determinant that influences the amount that Indian firms invest in Africa. The relation is negative, in other words the higher the level of school enrolment the less Indian investors will invest. Higher levels of skills indicate that the labour is more expensive and therefore this may demotivate FDI flows.

Figure 4. 9: Micro-economic regression analysis



Source: Author's own calculation

It can be concluded that the main micro-economic factors that influence FDI deals as well as the value of FDI deals indicate to be the development of people. The level of skills, as well as the size of the labour force, illustrates a significant influence on FDI flows from India to Africa.

4.4.6 Final estimates

This section provides the overall picture of the determinants of Indian FDI in Africa. The identified determinants which are significant in the variable groups are used for the estimation of the final models. There are two models that are estimated; one is to identify the determinants that influence the Indian investor's decision to invest that is illustrated by the amount of deals taking place. The other model estimates the determinants that influence the value of the investment from Indian investments.

Figure 4.10 illustrates the identified Indian FDI determinants to Africa. These factors are estimated in each variable group, the factors with a significant influence are included. The factors are identified in the factor analysis and regression model. The factors that are identified as significant determinants include government effectiveness, control of corruption, crude oil, school enrolment and exports. These determinants indicate a significant influence on the decision to invest. Control of corruption indicates a negative relationship with the decision to invest, in other words the higher the level of control over corruption the less investors are motivated to invest in Africa. This is an indication that the more corruption is taking place the less at ease an investor will feel with his investment. The other determinants include government effectiveness, crude oil price, school enrolment and exports. These determinants indicate a positive relationship on the decision to invest. The more effective a government in Africa operates the more at ease the investor will be with his investment in Africa. The result of Africa's standard in regards to the government effectiveness is a major influence on the investor's decision to invest. The operation of the African governments is seen as a major disadvantage.

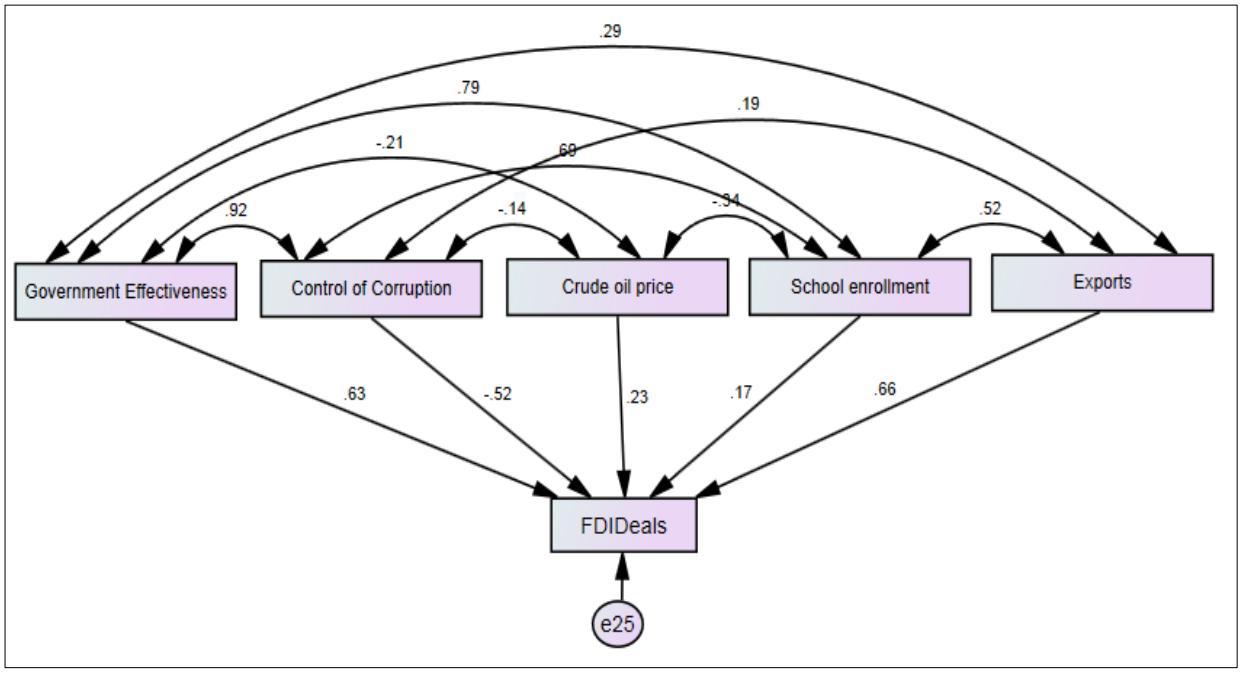
Exports are also seen as important since this indicates the openness of the country, in other words, the manner in which a country interacts and operates with other countries. Trade barriers and importing tax are a significant influence on the openness of a country to trade.

The level of the oil price also influences the investor's decision. Chapter three indicates that oil industry is one of the largest industries in Africa that receives FDI from India. Therefore the price of oil indicates an important and significant influence on FDI that

flows to Africa. Chapter three also indicates the African countries that receive the most FDI flows are the major oil producing countries. The oil price is a global determinant that cannot be controlled by African countries but the control of refining oil must be well managed in Africa; in order to keep sustainability in the FDI flows to this industry.

All determinants indicate a correlation with one another. This indicates that the determinants are highly influenced by one another as well as dependent upon one other. Allowing for correlation in the model makes the model a better fit and interpretation much more accurate. Figure 4.10 indicates all the significant determinants as well as the correlation among the specific determinants.

Figure 4. 10: Final regression analysis on the decision to invest



Source: Author's own calculation

The model fit indicates a good fitting model (see Table 4.9). A Chi-square of 1.7 implies a good fitting model and indicates that the covariance is close to the sample covariance. A 0 value for perfect results cannot be expected with the weaknesses in the data. The RMSEA indicates a close fitting model with a significant value that is close to 0. NFI, IFI and CFI values are above 0.9, which indicates the model is a better fit than the default model with no correlation. The model can therefore indicate accurate interpretation and results, since this model can be defined as a good fitting model.

Table 4.9: Model fit indications for regression on the amount of deals

Measurement factor	Value
Chi-Square	1.736
Degrees of freedom	1
RMSEA	0.052
CMIN/DF	1.736
NFI	0.999
IFI	0.999
CFI	0.999

Source: Author's own calculation

The model that illustrates the determinants of the level or amount of FDI that Indian investors decide to invest is done in two parts. The variables indicate high covariance and therefore two separate models are estimated in order to determine the accurate influence on the FDI flows. Both models are demonstrated in Figure 4.11.

Figure 4. 11: Final regression analysis on the level of investment

Source: Author's own calculation

The determinants of the level of investment include government effectiveness, rule of law, crude oil and school enrolment. The determinants that indicate to be significant include government effectiveness and rule of law. These determinants are highly correlated with one another and therefore estimated in separate models. Both determinants indicate a negative relationship, in other words the higher the levels of adherence to political regulations the less an investor will invest. The political stability (risk) of an African country indicates to be the most important factors that influence an investor's decision on the amount to invest. The political status of African countries is rather weak and therefore a significant factor that needs attention and improvement in order to sustain the FDI flows to Africa.

4.5 Summary

This chapter contains the empirical analysis of the study. The study used the SEM model specification method. The SEM method is a general statistical modelling technique that is used to determine the relationship among variables. This technique is applicable to this study due to its ability to test the recorded theory. SEM methods are also known as a confirmatory technique. This includes the estimation of a factor analysis and multiple regression analysis. The method therefore simultaneously tests the measurement and structural relationship of the variables. The CFA method of a SEM's model was used because it is more deductive.

The overall purpose of this study was to profile the determinants of Indian FDI in Africa. In order to accomplish this purpose the SEM method was used along with dividing the variables into different variable groups. The different variable groups were then used to do a factor analysis in order to identify the variables with the most significant influence. The variable that indicated a high weight to the variable group were the significant variable and were used for the regression analysis. The regression analysis tests the structural relationship between the high weighted variables and the amount of FDI deals as well as the value of FDI deals.

The variable groups consisted of risk factors, macro- and micro-economic factors, global factors and good governance factors (Good Governance). These variable groups were generated from a variety of variables that were collected from multiple sources. The defined detail in regards to the data is specified in Section 4.3. The data did indicate some weaknesses and it should be taken into account when interpreting the results. The variable groups also consisted of variables that are highly correlated. This was controlled for in the SEM.

The estimated risk factors analysis indicated factors such as finance, government effectiveness, foreign trade and payment, infrastructure, labour force, legal and regulatory and tax policy as significantly influential factors. It can be concluded that the role of the government and a country's financial position tend to play a significant role.

The good governance factors indicate a country's political state. The variables that indicated a highly weighted influence include control of corruption, government effectiveness, rule of law and voice accountability. Estimating the regression model indicated that control of corruption, rule of law and government effectiveness indicate to have an influence on FDI flows. These variables were also correlated with one another, but the model controled for the correlation.

The global estimates consisted of prices of the different commodities across the globe. The commodities that indicated to be significant variables in the factors analysis include maize, metals and minerals, crude oil, precious metals and agriculture. On the other hand the only commodity that indicated a significant role on the FDI flows is the crude oil price. This implies the importance of oil in Africa. This fact also supports the statements that India's investment is mainly resource seeking.

The macro-economic factors explain all aspects on a country or global level. The factors that indicated significant weights include the exchange rate, crude oil, government effectiveness and exports. The regression model illustrated that crude oil, government effectiveness and exports are the most significant macro-economic factors that influence FDI flows from India to Africa. This emphasises the importance of oil and the African political state.

The micro-economic variables explained the influence on industry and firm level. The factor analysis found population growth and school enrolment to be the significant factors to the micro-economic cluster. Both variables, the population growth and school enrolment indicated significant influence on FDI flows to Africa. These variables indicated the vital importance of the labour force and people skills in a country.

The final two models indicated the results of the influence of the significant variables on the amount of deals and the value of the deals. This clarified the determinants that influence an investor's decision to invest and the determinants that influence the value of the investment. The decision of Indian investors to invest in Africa is influenced by government effectiveness, control of corruption, crude oil price, school enrolment and exports. The value of the investment deal is influenced by the government effectiveness and rule of law.

It can be concluded that if an Indian company considers investing in any African market the state of the government and method the government operates influence the decision to invest in the specific market. The oil production in African markets indicate an important rule, this is mainly due to the high demand of oil in India due to shortage of resources. The level of development in terms of the labour force in any African country indicates a significant influence. This is an important factor since it influences the productivity of a country. The exports indicate the openness of a country. The more exports take place the better a country's ability is to operate on an international level. The stated theory in Chapter two is significantly supported by the results of the

empirical analysis. The applicable determinants of Indian FDI in Africa were identified in this empirical analysis.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

The purpose of this study was to provide a comprehensive overview of the determinants of Indian FDI in Africa. Specific focus was placed on determinants that included the micro- and macro-economic factors, the risks factors, the political state of African countries as well as global aspects.

India is one of the world's fastest growing economies and is estimated to be the second largest economy world-wide by 2050. In 1990 India started focusing on internationalisation and development of infrastructure. In this era India's focus changed to be more about development and growth plans. Countries such as India require resources in order to keep up and enhance its development and growth prospects. Africa and its abundant resources have the ability to support Indian in its requirements for resources. According to Broadman (2007), 50 to 80 per cent of FDI in Africa is in the natural resources sector and the development thereof.

India and Africa demonstrates relations and involvements in a variety of manners across a long historical period. The study focused on the specific relation of Indian FDI in Africa and the growing interest. In the modern world FDI plays a significant role in economic development and economic integration. FDI flows to countries does not just indicate advantages but can also be harmful to local markets and may have a risk of extracting natural resources. FDI is resource, efficiency or market seeking. Market seeking and resource seeking FDI tend to be harmful to countries, due to the extraction of natural resources and damaging local markets with competitive influences on international level.

India claims that its interests are not only resource seeking but also in the development of sectors such as telecom, automobile, financial services, pharmaceutical and educational sectors. India's current involvement in Africa is small but India plans on expanding its involvement in Africa (Deming, 2010). Katakey (2010), states that India is interested in Africa's good quality oil and that India aims at diversifying its oil resources into Africa. India is importing 21 per cent of its oil from Africa and is planning on growing this figure. This demonstrates large opportunities for Africa to expand its levels of investments, but also this can be harmful to Africa's resources.

This study aimed at clarifying India's involvement in Africa through profiling the determinants of Indian FDI in Africa. The following section provides an overview of the different aspects that was analysed in order to reach the main purpose of the study.

5.1 Study's Summary

Chapter two provided a theoretical background on FDI that includes the classification, effects, theories and determinants of FDI. FDI could be defined as a long-term investment where the investor acquires a controlling part of a foreign firm. The firms where investments take place are known as multi-national and trans-national enterprises.

FDI can be classified in three categories namely market, resource and efficiency seeking FDI. Market seeking FDI's purpose is to ensure access to the target market. Resource seeking FDI is where investors make an investment in order to ensure access to needed and affordable resources. Investors that aim to gain from governance and geographically dispersed activities mainly invest for efficiency purposes. FDI is also classified under Greenfields and M&A FDI. Greenfield FDI includes all investment where an entire new MNE is established and M&A include all mergers.

The theories of FDI include the dependency theory, modernisation theory and eclectic theory. The dependency theory states that countries tend to become dependent upon the inflow of FDI and its advantages. The modernisation theorist states that capital investments become essential for economic growth and development. The eclectic or "OLI" theory demonstrates the main reasons for investment. This OLI paradigm is explained in three factors: The ownership advantage (O), the location factor (L) and the internalisation factor (I).

The main effects include economic growth, employment and wages, human development, productivity, technology and policy makers. The effects are derived and dependent upon the different forms of FDI.

The determinants can be divided into two classification groups that include micro- and macro-economic factors. The micro-economic determinants include market size and growth, labour cost, host government policy, tariffs and trade barriers, taxes, transport cost, agglomeration effects and environmental factors. The macro-economic factors include openness and exports, exchange rate, inflation, budget deficits, investment and infrastructure, political instability and natural resource availability.

The African determinants include natural resources, market size, political instability, macro-economic instability, weak policies, inflation, good governance, investment, GDP, growth, openness and oil production. Section 2.7 illustrated the important risk factors that include global, country, industry and enterprise risks. These determinants

were tested in the empirical analysis to determine the Indian determinants of FDI in Africa.

Chapter three provided an overview of the trends of FDI. This chapter included an overview of global FDI, FDI to Africa and FDI from India in Africa. The trends of FDI were negatively influenced by the financial crisis that took place in 2008/2009. FDI flows in 2011 rose with 17 per cent regardless of the financial crisis. In the year 2010 developing and transition economies accounted for more than half of FDI's total flows. The major driver of the rise of developing and transition economies was FDI flows to Asian countries (excluding West Asia).

Ernst and Young's Africa Attractiveness Survey "Building Bridges" (2012), stated that foreign investors are more adequately identifying the potential and growth opportunities that the African markets present. In 2008 African FDI inflows reached a high of US$ 73 billion and FDI were reported at US$ 55 billion in 2010. Compared to the global downturn Africa demonstrated a remarkable recovery. The top African countries that receive FDI include Angola, Nigeria, Egypt, South Africa, Morocco, Libyan, Sudan, Tunisia, Congo and Algeria. The FDI inflows mainly originate from UAE, United States, United Kingdom, France, Canada, China and India. These only include Greenfield FDI since it indicates the highest value. The most of Greenfield deals take place in the coal, oil and natural gas, chemicals, metals, food and tobacco and automotive industries.

The Indo-Africa relation is beyond just investments and trading, in modern economy it also includes the sharing of skills, knowledge and technological developments. India's FDI flows to Africa ranked 9th across African countries including all source countries. Nyagah (2009) stated that Indo-Africa FDI flows expanded geographically and increased by 839 per cent. The rising figure indicates that India sees potential in the African market. The top investing sectors include coal, oil and natural gas, chemicals, metals, food and tobacco and automotive sector. This illustrates the interest in the natural resources such as oil, coal and gas. The top African countries that receive FDI from India include Nigeria, Mozambique, Egypt, Zimbabwe and South Africa. The trends can conclude that India's interest in Africa is seen as resource seeking FDI.

Chapter four concluded the empirical analysis done in this study. Section 4.1 provided details regarding the method that was used. This study used structural equation modeling (SEM). This method combines a factor analysis and multiple regression models. The purpose of this chapter was to make use of the theory provided and test the actual determinants of Indian FDI in Africa.

Chapter four divided the determinants in variable groups and each group was estimated separately. The risk factors were identified by a factors analysis. The highly weighted risk factors were used as focus areas for the estimation of the micro- and macro-economic, political (good governance) and global determinants of Indian FDI in Africa. Each variable group had an estimated factors analysis and a regression analysis. The factor analysis highlighted the important and significant determinants, while the regression analysis estimated the relation between the determinants and FDI deals as well as the value of FDI deals. The data specifications were provided in Section 4.3.

The risk factor analysis indicated that financial, government effectiveness, foreign trade and payments, infrastructure, labour market, legal and regulatory and tax policy were the variables that indicate a significant influence on the risk cluster. It can be concluded that financial and political risks are the most important risk factors when an investor makes a decision to invest.

The good governance factors that influence Indian investor's decision to invest include control of corruption, rule of law and government effectiveness. Only rule of law indicates a significant influence on the value of the investment. This supports the importance of the African countries' political state that can be seen as a significant determinant of Indian FDI in Africa. The global factors are included in order to control for determinants that are beyond the micro and macro-economic determinants as per country. The only global factor that influences FDI flows is the price of crude oil. This significantly highlights the fact that Indian firms are mainly interested in the natural resources and especially oil.

On macro-economic level factors such as oil, exports and government effectiveness illustrate a significant influence on the choice for an investor to invest. The government effectiveness of African countries is the only macro-economic determinant that indicates a significant influence on the value of Indian FDI deals in Africa. Population growth and the level of education are the micro-economic factors that demonstrate an influence on Indian FDI flows to Africa, while the level of education is the only factor that influences the value of the FDI deals.

The empirical estimations can conclude that government effectiveness, control of corruption, crude oil, school enrolment and exports are the main determinants of Indian FDI in Africa. While the political state of African countries tend to influence the value of the FDI deals.

5.2 Concluding Remarks

This study aimed to solve problem statements that revolve around the nature of Indian FDI in Africa. Indian FDI in Africa is mainly driven by factors that include macro-economic, micro-economic, risk, political and global determinants. Some African countries and sectors tend to attract the majority of Indian FDI. These sectors include the natural resource sector. Researchers claim that India's aim for investment is to gain access to Africa's resources. The types of Indian FDI flowing to Africa tend to refer to the main purpose of India investing in Africa. This study analysed the Indian FDI to Africa by solving the problem statements.

The macro determinants that influence Indian FDI to Africa include oil prices, exports and government effectiveness, while population growth and the level of education are the micro-economic determinants. The major risk factors of African countries are mainly political and financial risks. Political risks that play a significant role include control of corruption, rule of law and government effectiveness. The only global factor that influences Indian FDI in Africa includes the price of oil. This highlights the importance of oil for India. The top investing sectors that Indian investors indicate interest in include coal, oil and natural gas, chemicals, metals, food and tobacco and automotive sectors. The top African countries that receive the most FDI flows from India are Nigeria, Mozambique, Egypt, Zimbabwe and South Africa. India illustrates high interests in the natural resource sector of Africa and especially in oil producing countries. Indian FDI tends to be resource seeking FDI when taking into account the sectors of investment as well as the determinants. The FDI trends indicated that Greenfields FDI is fundamentally more than mergers and acquisitions.

The primary objective in this study was to profile the FDI determinants that influence Indian FDI flows to Africa. Aiming to reach the primary objective some sub objectives were set in place. The first sub objective includes the identifying and specifying of the African FDI determinants that were derived from existing studies. The second sub objective was to establish the state of Indian FDI flows in Africa, with specific detail on the different African sectors and countries in which India are mainly interested in. The third subjective included the determining of the level of influence that global aspects as well as the risks and political aspects of African countries have on Indian FDI to Africa. The fourth sub objective that was put into place included to simultaneously identifying the different micro- and macro-economic factors that indicate a significant influence on Indian FDI in Africa.

The objectives were reached as follows by each individual chapter. Chapter two demonstrated the determinants that play a significant role in investor's decision to invest in Africa. The determinants include natural resources, market size, political instability, macro-economic instability, weak policies, inflation, good governance, investment, GDP, growth, openness and oil production. Chapter three provided detail regarding the trend of FDI. It was established that the coal, oil and natural gas industry attract the most Indian FDI as well as the top oil producing countries such as Nigeria. Chapter four established that financial and political risk influence Indian FDI in Africa as well as the oil price on a global level. Chapter four also indicated that on macro-economic level the oil price, exports and government effectiveness play the most significant role, while population growth and level of education is of great importance on a micro-economic level.

The primary objective was reached by identifying the following main determinants of Indian FDI in Africa: government effectiveness, control of corruption, crude oil, level of education and exports.

5.3 Recommendation for further Studies and Study Limitations

This study indicated that India is a growing economy and is expected to become the second largest economy world-wide. These growth and expansion aspirations require support for India especially in terms of natural resource in which India shows limited availability. The strategy of India's increasing involvement in Africa should be viewed against the background of India's aspirations. Africa is a growing market and provides India with substantial opportunities.

Recommendations for further studies include expansions on the models estimated in this study with more up to date and complete data. Studies can focus on risks factors that influence FDI, providing more detail on specific factors. Studies can also focus on expansion of the specific influence on economic development and growth that Indian FDI indicates on African markets. This study provided a general overview of Indian FDI in Africa; further studies can provide more country and industry specific analysis. This will provide a different insight of Indian FDI in Africa.

The limitation of this study is mainly due to lack of substantial data and related studies. The available data is limited and indicates weaknesses. This should be taken into account with the interpretation of the results. The availability of studies done on Indo-

Africa relation is limited and therefore this study indicates lack in theoretical support in regards to Indo-Africa theory.

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Appendix 1

Algeria
Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Congo, Rep.
Congo, Dem. Rep.
Cote d'Ivoire
Djibouti
Egypt, Arab Rep.
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia, The
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho

Liberia
Libya
Madagascar
Malawi
Mali
Mauritania
Mauritius
Morocco
Mozambique
Namibia
Niger
Nigeria
Reunion
Rwanda
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
Somalia
Somaliland
South Africa
South Sudan
Sudan
Swaziland
Tanzania
Togo

Tunisia
Uganda
Zambia
Zimbabwe