THE EFFECT OF MACROECONOMIC VARIABLES AND BUSINESS ENVIRONMENT ON FOREIGN DIRECT INVESTMENT IN YEMEN: ROLE OF POLITICAL STABILITY AND ECONOMIC STABILITY

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By

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ABSTRACT

This study was conducted to examine the impact of the foreign direct investment inflows on economic growth in Yemen, and evaluating the role of the moderating effect of political stability and economic stability on the relationships between macroeconomic variables, business environment variables and foreign direct investment inflows. Indeed, the study poses a new stream of research in investigating the effect of political stability and economic stability as moderating variables, recognizing the importance of political stability and economic stability as a critical variable in the course of foreign investment. Thus, the research framework of this study was designed with the integration of New Growth Theory and Firm Theory in tracing the impact of political stability and economic stability on foreign direct investment. This study used annual data for 30 years since the period of 1985 to 2014. The data was collected from the official sources such as Central Bank of Yemen, United Nations Conference on Trade and Development, World Bank and International Monetary Fund. This study used the Augmented Dickey Fuller test to check the stationary of the data and hierarchal regression using STATA statistical software packages.The moderating effects of the determinants political stability and economic stability on the relationships were empirically examined. The findings of this study revealed that gross domestic production growth rate, degree of openness, exchange rate, inflation rate, gross national income, balance of payment, corruption control index, labour cost, infrastructure were significant predictors of foreign direct investment inflows. These findings, therefore, strongly suggested that political stability and economic stability is very important for the country's domestic and foreign investment in the future course of direction. The study proposed several practical inferences for designing suitable macroeconomic policy and undertaking measures to promote a high economic growth with rising foreign direct investment inflows in the political economy of Yemen.

Keywords: macroeconomic variables, business environment, political stability, economic stability, foreign direct investment.

ABSTRAK

Kajian ini dijalankan untuk mengkaji kesan daripada aliran masuk pelaburan langsung asing ke atas pertumbuhan ekonomi di Yemen dan penilaian kesan perantara kestabilan politik dan kestabilan ekonomi mengenai hubungan antara pemboleh ubah makroekonomi, pembolehubah persekitaran perniagaan dan aliran masuk pelaburan langsung asing. Kajian ini mewujudkan satu aliran baru penyelidikan dalam mengkaji kesan kestabilan politik dan kestabilan ekonomi sebagai pemboleh ubah sederhana dan mengiktiraf kepentingan kestabilan politik dan kestabilan ekonomi sebagai pemboleh ubah penting dalam pelaburan asing. Jadi, kerangka kerja penyelidikan dalam kajian ini direka dengan mengintegrasikan teori pertumbuhan baru dan teori firma dalam menguji kesan kestabilan politik dan ekonomi ke atas pelaburan langsung asing. Kajian ini menggunakan data tahunan selama 30 tahun iaitu semenjak 1985 hingga 2014. Data pula dikumpulkan dari sumber-sumber rasmi seperti Bank Pusat Yaman, Persidangan Bangsa-Bangsa Bersatu mengenai Perdagangan dan Pembangunan, Bank Dunia dan Tabung Kewangan Antarabangsa. Kajian ini menggunakan ujian Augmented Dickey Fuller untuk menguji kepegunan data dan regresi hierarki menggunakan STATA pakej perisian statistik. Kesan perantara kestabilan politik dan ekonomi ke atas hubungan dengan penyederhana telah diperiksa secara empiris. Justeru, hasil kajian ini menunjukkan bahawa kadar pertumbuhan pengeluaran dalam negara kasar, tahap keterbukaan, kadar pertukaran, kadar inflasi, pendapatan negara kasar, imbangan pembayaran, indeks kawalan rasuah, infrastruktur kos buruh, adalah bersignifikasi dengan aliran masuk pelaburan langsung asing. Hasil penemuan ini amat mencadangkan bahawa kestabilan politik dan kestabilan ekonomi adalah sangat penting bagi pelaburan domestik dan asing di negara yang dikaji untuk kelangsungan ekonomi masa hadapan. Selain itu, kajian ini turut mencadangkan beberapa kesimpulan praktik untuk mereka bentuk dasar makroekonomi yang sesuai dan mengambil langkah-langkah untuk menggalakkan pertumbuhan ekonomi yang tinggi dengan peningkatan aliran masuk pelaburan langsung asing dalam ekonomi politik Yaman.

Kata Kunci: pembolehubah makroekonomi, persekitaran perniagaan, kestabilan politik, kestabilan ekonomi, pelaburan langsung asing.

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TABLE OF CONTENT

LIST OF TABLES

xii

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

ADF	Augmented Dickey Fuller
ARDL	Autoregressive Distributed Lag Model
B/D	Barrels Per Day
BoP	Balance of Payments
BRICS	Brazil, China, India, Russia, South Africa.
BTA	Bilateral Trade Agreement
CBY	Central Bank of Yemen
CCI	Corruption Control Index
CEEC	Central and Eastern European Countries
COMESA	Common Market for Eastern and South Africa
CRP	Commodity-Producing Sector
DoP	Degree of Openness
ECM	Error Correction Model
ES	Economic Stability
ETE	European Transition Economies
EXR	Exchange Rate
FA	Foreign Aid
FDI	Foreign Direct Investment
GDPGR	Gross Domestic Production Growth Rate
GCC	Gulf Cooperation Council
GIA	General Investment Authority
GNI	Gross National Income
GNP	Gross National Product
HRM	Human Resource Management

IMF	International Monetary Fund
INFRAS	Infrastructure
INFR	Inflation Rate
LBC	Labour Cost
MENA	Middle East and North Africa
MNC	Multinational Companies
NAFTA	North American Free Trade Area
NPV	Net Present Value
OECD	Organisation for Economic Co-operation and Development
OLI	Ownership, Location and Internalisation
OPEC	Petroleum Exporting Countries
PS	Political Stability
SSA	Sub-Saharan Africa
UAE	United Arab Emirates
UK	United Kingdom
UNCTAD	United Nations Conference of Trade and Development
US	United States
USD	United States Dollar
WIR	World Investment Report

CHAPTER ONE

INTRODUCTION

1.1 Backround of the Study

It has been extensively define in both theories and practical that Foreign Direct Investment (FDI) often leads to many economic advantages to the recipient country through its provision of capital, foreign exchange, technology transfer, organisational framework, managerial skills and opportunities to exports through the improvement of foreign markets access (Javed, Falak, Awan & Ashfaq, 2012; UNCTAD, 2011; Salman & Feng, 2010; Crespo & Fontura, 2007; Gorg & Greenaway, 2004; Brooks, Fan, Sumulong & Bank, 2003). Economists claimed that FDI can also lead to maximise domestic investment via its linkages in the process of encouraging both innovation and economic growth of the country (Awan, Khan & Zaman, 2011; Brooks et al., 2003).

Several studies have examined the role of FDI for the growth of the economy as well as the combination of FDI-attracting factors. In general, research studies have asserted that FDI essentially play a positive role in the process of economic growth in developing countries. In this context for instance, (Lugemwa, 2014; Sayek & Koymen, 2009; Paus & Gallagher, 2006) have argued that foreign associates of TNCs (Transnational Corporations) do well in developing new products and faster adoption of technologies than local firms. Thereby using modest competitive pressure and forcing the local firms to imitate and transform.

1

In the 21st century and even in the last two decades, FDI have become the largest source of capital formation in the world especially for the developing countries. FDI also plays an important role for the economic development of host country economies especially if it is accompanied by sound economic policies, and greater openness to trade. There are few researchers (such as, Farahani, Motevasel & Hajmousavi, 2014; Musibah, Shahzad & Fadzil, 2014; Nayyra, Fu & Sundas, 2014; Naanaa & Sellaouti, 2013; Shahzad & Al-Swidi, 2013) that concluded the benefits of FDI to the recipient country in the shape of modern technologies transfer, skill acquisition and market competition, to reduce the poverty and increase the balance of payments.

The financial and economic system`s integration through social and cultural aspects in a phenomenon known as globalisation has transformed the world into a small village. Globalisation has introduced opportunities for success but the inherent risks associated with it have also been multiplied. In the context of the financial system, FDI is deemed to be the core globalisation component (Alfaro, 2014; Thorpe & Leitao, 2014; Dunning, 2013; Barros, Caporale & Damasio, 2013; Cho, 2003). In other words, FDI is referred to as the core globalisation element in the global economy (Anyanwu, 2012). The term refers to the FDI where the investors obtains a 10 percent interest of more of ordinary shares in a firm located in another country. It consists of the stocks purchases, earnings reinvestment, and lending of funds to a foreign subsidiary or a foreign branch (Chaudhuri & Mukhopadhyay, 2014; Duce, 2003).

Overall, the FDI flows significance to developing as well as developed nations is extensively acknowledged in literature dedicated to economics. Over the last two decades, FDI inflows have showed an increasing trend that is doubled that

of the world economy trade flows (Rajana, Rongalab & Ghoshc, 2008; Sinani & Meyer, 2004).

In the first ten years of the 21st century, FDI has exhibited expedient growth in the world`s economy. Developing countries are likely to improve their capital formation in their industrialisation process through FDIs. The process is boosted since marginal productivity of capital is assumed to be great in these countries, so the investors from the developed nations would estimate great returns to their invested capital in the developing countries. In total, international capital mobility in the form of FDI is assumed to confer mutual advantages to the relevant partners and beneficiaries in transactions on a global level (Duanmu, 2014; Reinhardt & DellErba, 2013).

It is apparent that FDI is the top significant source of external source for the expansion and growth of the industry in terms of real income that developing countries are attempting to seek in the past few years. The resulting benefits of the FDI have been extensively acknowledged as an expansion of the economic growth in the developing countries (Khan, 2007). The FDI contribution to the host country's national economy is expected to positively influence the employment opportunities, improve the managerial productivity of capital in the industrial sector, increase foreign trade and economic growth with the corresponding increase in technology shift (UNCTAD, 2011; Ifaro, Chanda, Kalemli-Ozcan & Sayek, 2004). The FDI benefits on the economy of the host country further facilitates the superior utilisation of available raw resources, improve management and marketing methods, provide access to up-to-date technologies, and improve human capital via job training and HRM strategy (Yulek, 2014; Huma, Tahir & Zaheer, 2013).

3

Aside from the above, foreign money inflows reserves can be used to finance current account trade deficits of Balance of Payments. Contrary to external debt, money inflows via FDI do not entail debt redemption and interest liabilities. Several developing nations have established sweeping reforms towards liberalisation that have led to dynamic competition among these countries on the global level. Entry barriers and control laid down on business activities of foreign entry in these countries are eradicated to pave way for specific incentives and business facilitating policies like tax rebates and export zones creation among others. A dynamic competition for the FDI inflows attraction exists among developing countries as novel challenges are encapsulating growth opportunities under the 21st century economic dynamism. Moreover, developing countries are providing incentive packages to attract foreign investors. Countries of the world over are attempting to enhance the basis of their economy to cost on their macroeconomic policies (UNCTAD, 2014; Pajunen, 2008).

Many researchers have analysed the role of FDI in the growth of several economies to investigate the investment-growth relations. It is assumed that FDI is a significant source for obtaining capital, up-to-date technology, managerial skills, enhanced marketing know-how and output for current exports. The FDI-trade relationship is characterised by two main channels in the host country. First, countries having great degrees of openness are ostensibly attracting more FDI inflows. Second, the FDI inflows can impact the trade flows via technology transfer and expansion of industrial output in export sector (Gonzalez, Castro, Miura & Feijo, 2014; Hunter & Saldana, 2013; Irsova & Havranek, 2013; Chowdhury & Mavrotas, 2006).

4

Based on the World Investment Report (WIR) annually published by UNCTAD, the role and issues concerning FDI inflows in the world economy have been time and again examined. Accordingly, based on the WIR issues report, it is significant to conduct a review of the growth trend exhibited by FDI inflows and outflows in the global economy and major global economic units, like developed and developing economies as reported in Table 1.1.

Table 1.1
Regional Allocation of FDI Inflows, 2000 – 2014 (Million of USD)

Year	2000-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
World	5,055,868	998,309	1,509,450	1,923,505	1,708,367	1,220,019	1,408,283	1,625,184	1,310,208	1,451,676	1,300,776
Developing Countries	1,068,0680	331,069	429,665	556,750	664,994	526,828	562,952	650,814	671,800	733,135	1,129,192
Developed Countries	3,987,7980	667,240	1,079,785	1,366,755	1,043,372	693,191	845,330	974,370	638,408	718,541	3,421,784
MENA	127,501	65,074	96,108	107,518	129,740	114,582	97,976	90,621	100,571	103,278	73,784
GCC	24,130	28,324	39,235	48,405	61,698	51,458	42,658	29,416	27,923	23,888	26,938
Yemen	265	-269	1,027	849	1,445	122	192	-515	-529	-133	-342

Source: UNTCAD, 2014.

6

In the past twenty years, FDI exhibited a monumental expansion of inflows and outflows on a global level. The growth of FDI on a global scale on the whole and in economic significance has been distinct, expedient compared to trade flows, particularly in the world's topmost superior industrial economies. The considerable amount of theoretical as well as empirical literature concerning FDI documents a list of determinants that follow direct investment undertaken by multinational firms in certain regions and locations around the globe (Bogdanovska, 2011; Mahmood, Ehsanullah & Ahmed, 2011; Hansen & Rand, 2006). The determinants factors such as infrastructure, human capital and economic stability related with the location, dimension or Ownership, Location and Internalisation (OLI) paradigm are highlighted along with those on the institutional approach factors including corruption and political stability, on the novel growth addressing land, labour and enterprises, and finally on the firm investment theory that addresses future firm profits and risk premium (Benacek, Lenihan, Andreosso, Michalíkova & Kan, 2014; Chaudhry, Iqbal, Mehmood, Mehmood & Mujtaba, 2014; Assuncao, Teixeira & Forte, 2011).

Many empirical studies have assessed the key determinants that highlighted important factor of multinational firms in a specific time, but they failed to obtain consensus on their results. Many researchers reported via survey results that no statistical significant function relationship exists for specific determinants like infrastructure, financial and fiscal incentives, market growth, and economic openness to growth of FDI inflows in some developing countries.

It has also been noted that majority of the previous studies concentrated on certain regions and countries including Sub-Saharan Africa (SSA) by Asiedu (2006), the Middle East North African (MENA) countries by Mohamed and Sidiropoulos (2010), India by Kumar and Chadha (2009), China by Cheung and Qian (2009), Hungary, Poland and the Baltic region by Deichmann, Karidis and Sayek (2003), the Southern African Development Community by Mhlanga, Blalock and Christy (2010) and Brazil, Russia, India, China and South Africa (BRICS) by Vijayakumar, Sridharan and Rao (2010).

Only very few studies cover a wider range of countries and determinants of FDI in the Middle East and North Africa (MENA) region countries such as Yemen, Saudi Arabia, Iraq, Egypt, Syria, United Arab Emirates, Jordan, Palestine, Lebanon, Oman, Kwait, Turky, Qatar, Iraq, Sudan and Bahrain however, not much attention is paid by the researchers in providing comprehensive analytical studies. Aside from these studies, only a few were dedicated to an extensive range of nations and determinants (Musibah, Arfan & Fadzil, 2015; Brahim & Rachdi, 2014).

Like developing nations, Yemen have been facing challenges of investment shortage to the development of the country. Thus, FDI can impact the process of economic growth by minimising this gap, facilitating new technology transfer into the country, creating jobs for the nation and expanding national output and growth level (Mukhtar, Ahmad, Waheed, Ullah & Inam, 2014; Alvarez & Marin, 2013; Meon & Sekkat, 2013; Kobrin, 2005; Ataullah, Cockerill & Le, 2004). Given the advantages attributed to the employment of

8

foreign capital in the process of developing nations, they are inclined to liberalise their FDI policies for the maximisation of FDI inflows into them. On the whole, empirical analysis and theories however have resulted in mixed findings regarding the impact of FDI on economic growth in these countries.

Even the developing and undeveloping nations are seeking greater inflows of FDI in order to benefit from the expected advantageous effects on income production for the capital inflows, advancement of technology, management expertise, and market know-how. Therefore, this study investigates the FDI inflows determinants in the context of Yemen – a country still undergoing a low level of FDI inflows.

The Yemeni government has showed great interest in attracting FDIs over the past years. Yemen is a country in the Middle East located at the southern border of the Arabian Peninsula between Saudi Arabia and Oman. It possesses an area measuring 527,970 square kilometers and a population of 25,408,288 in 2013.

The Central Bank of Yemen's (CBY, 2013) had reported Yemen as one of the poorest nations in the Middle East region, with approximately 35 percent of its population living below the poverty line and with a GDP of 5.6 percent in the year 2005 because of increased production of oil by 4 percent in 2004. However, such growth decreased to 3.2 percent and remained 3.3 percent in 2007 because of decreased production of oil. In the following year, the GDP increased to 3.9 percent and in 2009, the move towards initiating a new liquified natural gas project was expected to bring about greater increase in

production of hydrocarbon. In 2010, the real GDP had increased to 7.7 percent (CBY, 2013). However in the following year (2011), the growth had decline to - 12.7 percent. This is due to the conflict in the country among the political parties, the growth recovered after the peace in the country in the years 2012 and 2013 to 2.4 percent and 6 percent respectively (UNCTAD, 2014) .

With regards to its economic stability, Yemen is among the few countries that have launched reformation programs, which led to the occurrence of many controversies (Dahan, 2014). This includes the plan to manage the floating of exchange rate. The Yemeni exchange rate experienced a dynamic fluctuation in the past years (Kurihara, 2013). The Central Bank of Yemen (CBY) established a floating rate system in 1996 but it has an evident preference for the stable Yemeni Rial (Chami, Ahmed, Ltaifa & Schneider, 2007). With regards to the rate of inflation, Yemen is one of the nations that reported the highest price increased in the Middle Eastern region in 2008. More specifically, it is reported a high rate of inflation from 2002 to 2007 (Almounsor, 2010).

Although, the government has tried to move away from its reliance on oil by initiating economic reform programs in 2006 in an attempt to diversify its economy, the fact still remains that its previous dependence on oil combined with a reduction in oil exportation has contributed to Yemen's current economic state (Central Intelligence Agency, 2014).

The government of Yemen has made great efforts via legal framework and promotional campaigns to attract foreign investors. It made its first step in attracting FDI inflows by establishing the Yemeni General Investment Authority in 1992 and passing the foreign investment new policy Law. In order to further encourage FDI, a new Foreign Investment Law was also issued in 2002. Additionally, it established a specific center to lower the time required to approve and register investments (UNCTAD, 2009). The country has also introduced other incentives to motivate FDI inflows. Currently, the Yemeni government permits 100 percent foreign ownership, and provides income tax and exemptions to import duty. Furthermore, incentives in the form of free zone including tax profits exemptions is allowed for 15 years with a potential extension for an additional decade (General Investment Authority, 2014).

By and large, the present study will focus on the relationship among macroeconomic determinants, business environment and moderating role political stability and economic stability country on the FDI inflows.

1.2 Problem Statement

Because of global integration sought by the country the inflow of foreign direct investment is considered to be a major source of capital that is indispensable for growth and development in the developing country such as Yemen. Economic policy makers of Yemen duly recognize the need for increasing inflow of FDI in the country in order to meet their macroeconomic goals such as high growth rate, large and increasing national and per capital income, and eradication of poverty. Under the dimensions of business environment, Yemen

11

has major socioeconomic political problems associated with physical infrastructure; political stability, economic stability and corruption in the country need to be empirically investigated (Musibah et al., 2014; AL-Shebami, Almsafr and Shaari, 2013).

Over the years, developing countries such as Yemen has thrown its doors wide open to FDI, which is expected to fetch large benefits. Nevertheless, there has been no successful consistent inflow of FDI in Yemen. Besides, the meagre inflows that the country has received have not been utilised appropriately to enhance the economic growth (Musibah et al., 2015; UNCTAD, 2014). By and large, the country's experience related to FDI inflow is disappointing.

FDI has grown dramatically due to its important effects on both developed and developing economies. However, Yemen has experienced low levels of FDI inflows and is ranked as one of the countries with the least amount of FDI inflows in the Middle East and North Africa (MENA) countries. Figure 1.1 presented the inflow of FDI in years from 1985 to 2014. This clearly indicated that Yemen's FDI is unstable from 1985 to 2014.
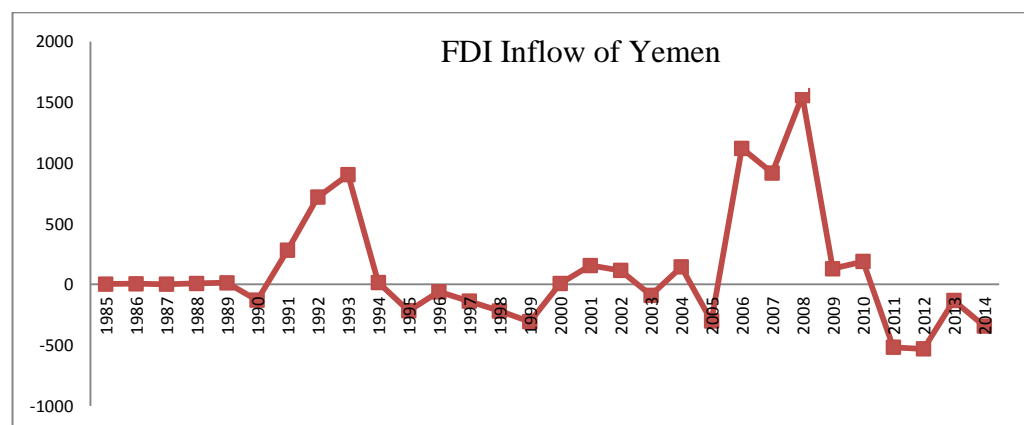
Source: UNCTAD, World Investment Reports, 2014.
Figure 1.1: Yemen FDI Inflow during the Period 1985 - 2014.

12

Figure 1.2 is related to the FDI inflows in selected Middle East and North Africa (MENA) countries namely Bahrain, UAE, Turkey, Tunisia, Egypt, and Yemen. The data reflects that the FDI inflows have steadily grown in these countries. Starting from the year 2001 onwards, specially Turkey, UAE, and Egypt countries have increasing trend of FDI except a significant decrease in the year 2009 to 2010 in the case of Bahrain and Egypt in 2011.

This figure also shows that Yemen is less FDI inflow within the MENA countries from 2000 to 2014, except some improvement towards growth in the period from 2006 to 2008.
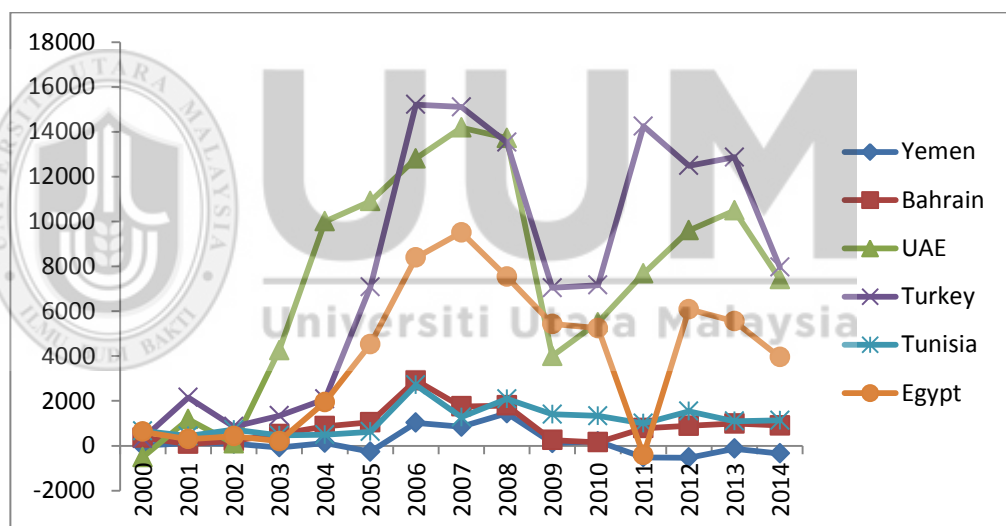
Source: UNCTAD, World Investment Reports, 2014.
Figure 1.2: FDI inflows in the Selected Middle East and North Africa (MENA) Countries during the Period 2000 - 2014.

UNCTAD (2014) reported that Yemen is considered as one of the least developed countries. In another report published in 2008, UNCTAD highlighted that Yemen is one of the countries performing below potential and recommended that it needs to engage in significant reforms to boost its investment climate and increase its share of total FDI inflows.

Musibah et al. (2014, 2015) and UNCTAD (2009) further showed that Yemen not only has a low level of FDI inflows, but the country's FDI inflow has declined sharply and appeared negative for some years. This means that there were repatriations of previous investments in those years by foreign investors from Yemen. According to a report issued by the General Investment Authority (GIA) in Yemen, between the periods of 1992 and 2008, around 27 percent of the investment already registered and started, failed, and foreign investments represented the highest rate of these failures. According to UNCTAD (2013), the negative value of a country's Inward FDI means foreign investors disinvest in that period. Yemen had a negative value between the period from 1994 to 2000, also in 2003 and 2005. In 2011 and 2012 FDI inflows in Yemen dropped to the lower level, then in 2013, FDI inflows improved slightly but still low, in 2014 FDI inflows to Yemen returned to decline again.

In an attempt to explain this situation, many researchers for example, Hela (2014) and AL-Shebami, Almsafr and Shaari (2013) as well as international reports such as UNCTAD (2013) and World Bank (2013), confirmed the undesirable effect of poor exchange rate, GDP, inflation rate and corruption on the FDI inflows in Yemen.

However, the low level of FDI and the weak contribution to overall growth of the economy of Yemen can be mainly attributed to many reasons (Musibah et al., 2015; Shahzad & Al-Swidi, 2013; AL-Shebami et al., 2013; Shahzad, Mithani, Al-Swidi & Fadzil, 2012; Mahdi, Almsafir & Yao, 2011; Centorrino & Ofria, 2008; Chami et al., 2007; Blonigen & Wang, 2005; Peri, 2004; Omran & Bolbol, 2003; Lim, 2001) such as:

14

1. Low attention to improve degree of openness in Yemen context in the Middle East.

2. Neglecting the significant role of the macroeconomic policy in attracting the FDI inflows.

3. Low attention to the business environment in order to attract the desirable level of FDI inflows.

4. Increasing level of corruption index leading to adverse effects on the FDI inflows in Yemen.

5. The lack of the political stability and economic stability to enhance and support FDI inflows.

Reviewing the past literature regarding the relationship between some variables such as corruption index, business environment and political stability and economic stability and the FDI inflows inconsistent findings have been observed. For example, while Akcay (2001) failed to trace evidence of a negative relationship between FDI and corruption, Quazi,Vemuri and Soliman (2014), Julio, Pinheiro and Tavares (2013) and Habib and Zurawicki (2002) have, however, traced a negative impact of corruption on FDI. This was justified by the fact that foreign investors generally avoid investing in corrupt business environment since they feel insecure and corruption may induce operational inefficiencies. In studying the effect of the political instability on the FDI inflows, there have been mixed findings in the literature. Many other studies on the other hand, such as Shahzad et al.(2012) and Younis, Lin and Sharahili (2008) established that political instability have significant impact of FDI inflow. Similarly, other studies such as those conducted by Molaie and

15

Azad (2013) and Wei and Liu (2001) found that political stability and economic stability has a positive effect on FDI inflow. Since, investors are very sensitive to the political stability of the targeted countries, it is expected that the political stability of the country can attract FDI inflows. Some researches such as Kim (2010) have contended in their studies on political system welcoming to a foreign investment suggested that property rights and civil rights play a pivotal role for attracting FDI to the host country.

Most of the researchers mentioned that shortage of political stability and economic stability, inhibit foreign investors from more FDI to the host country such as (Benassy, Coupet & Mayer, 2007; Kostevc, Redek & Susjan, 2007; Daniele & Marani 2006; Bevan and Estrin, 2004; Xu & Shenkar, 2002; Clarke, 2001).

Countries that have political stability and economic stability are likely to be more foreign investment catcher (Krifa-Schneider & Matei, 2014; Mukhtar et al., 2014; Nayyra et al., 2014). Some studies (Khrawish, 2014; Thorpe & Leitao, 2014; Louzi & Abadi, 2011; Asiedu, 2002; Pigato, 2001) elucidate that the country economic stability does influence very significantly FDI inflows, and MNC avoid countries where political risks and economic instability are high.

On this count, the present study intended to resolve the issues for academic interest as well as understanding and appreciation of policy makers regarding major determinants of FDI in association with examining the effect of some

16

macroeconomic variables and business environment under the economic and political consideration and policy making on FDI inflows in Yemen.

This study eventually aimed to examine the effect of macroeconomic determinants and business environment with the moderating variables of political stability and economic stability in enhancing the capability of the country to attract FDI inflows.

1.3 Research Questions

The present study, thus, focused to deal with the following research questions:

1. Is there any relationship between macroeconomic determinants (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment) and FDI inflows in Yemen?

2. What is the relationship between business environment (Corruption Control Index, Labour Cost and Infrastructure) and FDI inflows in Yemen?

3. Does political stability and economic stability moderate the relationship between macroeconomic determinants (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment) and the FDI inflows in Yemen?

4. Does political stability and economic stability moderate the relationship between business environment (Corruption Control Index, Labour Cost and Infrastructure) and the FDI inflows in Yemen?

1.4 Research Objectives

The general objective of the study is to analyse the effect of macroeconomic factors and business environment on FDI inflows in yemen. Therefore, the

present study intends to provide a better insight to the phenomenon of FDI inflows in Yemeni economy. The specific objectives are as follows:

1. To examine the relationship between macroeconomic determinants (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment) and FDI inflows in Yemen.

2. To determine the relationship between business environment (Corruption Control Index, Labour Cost and Infrastructure) and FDI inflows in Yemen.

3. To examine the moderating effect of the political stability and economic stability on the relationship between macroeconomic determinants (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income, and Balance of Payment) and the FDI inflows in Yemen.

4. To investigate the moderating effect of the political stability and economic stability on the relationship between business environment (Corruption Control Index, Labour Cost and Infrastructure) and the FDI inflows in Yemen.

1.5 Scope of the Study

This study utilises macroeconomic yearly time series data in Yemen collected from the period 1985 to 2014. Apparently, the period chosen is pertaining to previous and post decades of the new millennium years 2000, thus, confined to the last decade of the 20th century and initial decade of the 21st century in the contemporary era. In addition, the period of 1985 to 2014 was chosen because it represents the most data available. Nine independent variables were used in this study, under the categories such as: macroeconomic determinants (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment), business environment (Corruption

18

Control Index, Labour Cost, Infrastructure) and moderating variables referring to political stability and economic stability einteracting with FDI in Yemen as dependent variable. In addition, the statistical tool that is used in this study is limited to the measuring of correlation coefficients and multiple regressions. By doing this, the long run relationship among the variables were established in order to test the hypotheses envisaged for the current study.

By going through the literature review of Yemeni economy related to the FDI inflows, it cannot be denied that there is a glaring research gap in perceiving the overall macroeconomic determinants, business environment, political and economic situation of the country in the new millennium era. The present study, thus, attempted to fill up the gap by providing a fresh comprehensive study of the FDI inflows and related issues pertaining to macroeconomic variables and business environment in the growth process of Yemen as a developing country. The present study intended to analyse the investment behaviour during the period of 1985 to 2014. Thus, covering the last two decades pertaining to the end of the 20th century and the promising decade of the new economic era of globalisation in the 21st century. This is addition to the rapid political and economic changes that took place in Yemen, especially during civil war 1994 and in the year 2011 represents after the so-called revolution of the Arab Spring, and the change of regime in Yemen of the republican system to the federal system in the end of the year 2013.

1.6 Significance of the Study

The notable increase in government`s adoption and employment of FDI procedures have given its importance to the world economic growth, countries and researchers motivation to pay attention to FDI and its determinants. A significant number of studies have been carried out regarding FDI but empirical work on Yemeni FDI is still few and rare although Yemen is quite keen to attract investments from foreigners. This is evident by the government initiatives like the establishment of a one-stop-shop system for foreign investments (UNCTAD, 2009). This is also clear from Yemen's amendment of its law in 2002, giving equal treatment towards foreign and Yemeni investors.

Hence, examining what attracts FDI into Yemen and providing an insight about Yemeni FDI, with the inclusion of the barriers to foreign investors is deemed to be significant in empirical research. Additionally, the policy makers in Yemen can be assisted in their design of proactive policies for attracting foreign investment and producing growth in the economy, via the formulation of policies that advocate exchange rate stability and facilitating stable political conditions.

The present study intended to contribute significantly to the existing literature by presenting a comprehensive approach in analysing the issue of foreign capital and growth for Yemen. The approach as well as will be the findings of the study was of great importance for academicians and decision makers by providing a better understanding of the factor that might influence the FDI inflows in a country like Yemen. The study is based on analytical and

empirical ground since it relates to the nexus of relationship between FDI and macroeconomic variables and business environment in developing economy of Yemen. Moreover, this study will contribute to the literature by uniquely examining the moderating effect of political stability and economic stability on the relationship between macroeconomic variables, business environment and the FDI inflows. By and large, this study can be considered as an endeavor to expand the literature by exploring the effect influencing variables in the context of needful political stability and economic stability mode on enhancing the country's FDI attractiveness in developing economies with a focus on Yemen.

Apparently, for the policy makers, this study will be of a great value and can be used as a guideline on how Yemen, as well as other developing countries, can facilitate the FDI inflows to their economy. In addition, the significance of the study can be viewed from the practical perspective. The study significance can also be noted from the perspective of practice. The economy of Yemen largely hinges on the production of oil, with the oil exports constituting approximately 90 percent of total exports, 75 percent of government revenue and 30 percent of gross domestic product (GDP). Yemen has been attempting to garner FDI to counteract the recent dip in the production of crude oil. The oil production in Yemen has been experiencing an increasing decline and oil reserves are expected to be finished in the near future (Country Watch Review, 2010). The scenario is such that in 2005, daily production of oil was reported to be 400,000 B/D but went down to 375,000 B/D in 2006, 319,000 B/D in 2007, 298,000 B/D in 2008 and 285,000 B/D in 2009. By 2010, daily production of

oil considerably went down to 257,000 B/D (Oil & Gas Directory, Middle East Report, 2010). In order to counteract this decline in the production of oil, the Yemeni government should identify the factors significant in attracting higher FDI inflows. This would lead to the diversification of its economic activity and improve its versatility.

Moreover, investigating the factors influencing the FDI inflows is considered important in Yemen as it is among the poorest countries in the Middle East, with around 35 percent of the population living under the poverty line and having low rates of savings (Country Watch Review, 2010). Yemen's current socio-economic situation could be enhanced via FDI, as prior studies revealed that FDI positively impacts the host country's growth and productivity through advanced technology and management skills diffusion among others (Mastromarco & Simar, 2014; Wijeweera, Villano & Dollery, 2010; Johnson, 2006). Maximised foreign capital can fill the gap between ratio of domestic savings and the required ratio of investment (Duhan, 2014; Angmortey & Tandoh-Offin, 2014; Wijeweera et al., 2010; Johnson, 2006; Mody, Murshid & Mishra, 2000).

1.7 Definition of Terms

Foreign Direct Investment: This can be defined as net inflow of capital to gain a long term profit (usually it is 10 percent or more in case of voting stock) in a firm functioning in an economy other than individual investor (UNCTAD, 2014; World Bank, 2014).

22

Gross Domestic Product Growth Rate: Annual percentage increase in market value of all goods and services in final form that are produced in one year in a country (UNCTAD, 2014).

Degree of Openness: Degree of openness of an economy can be defined by the sum of imports and exports as ratio of its gross domestic product (UNCTAD, 2014; World Bank, 2014).

Exchange Rate: The price of one currency in terms of another currency is known as exchange rate in said two currencies (UNCTAD, 2014).

Inflation Rate: Average percentage increase in general price level in an economy is termed as inflation rate by comparing every month of current year with corresponding month in last year (UNCTAD, 2014).

Gross National Income: Can be defined as a summation of market value of all goods and services produced by residents of home country plus net income from abroad plus taxes excluding subsidies (UNCTAD, 2014).

Balance of Payment: This is difference between net inflows of money in a country from abroad minus outflows of money from the country during same time period. It has two components as capital account and current account (UNCTAD, 2014).

Corruption Control Index: It defines the perceptions of analysts in country and businesses about degree of corruption. The range of corruption control index from -2.5 to 2.5, with greater numbers indicating a lower level of corruption (World Bank, 2014).

Labour Cost: Is the minimum gross amount that a labourer must be paid before income tax deduction and social security deduction and this minimum amount is set by the government (UNCTAD, 2014).

Infrastructure: The important basic necessities, amenities, installations and services that are required by a society or community, e.g. transportation and road, communication, power, clean water, education and health facilities and others (UNCTAD, 2014).

Political Stability: It can be defined as the likelihood/possibility or chance that a government will continue for a period of time defined by its constitution without getting subverted by any unconstitutional way that may include terrorism and domestic or foreign disturbances (UNCTAD, 2014; World Bank, 2014).

Economic Stability: Is constancy of large oscillations in economic cycles in an economy. This can be observed by a persistent growth of output and little stable inflation rate in the economy (World Bank, 2014).

Developing Countries: This include countries that are on the way of development but have less level of income (GNP per capita) than developed countries (UNCTAD, 2014; World Bank, 2014).

Developed Countries: These countries are also called high income countries. The people in these countries have high level of income thus living standard. Often, these can also be defined as countries having higher levels of physical capital (UNCTAD, 2014; World Bank, 2014).

1.8 Organisation of the Study

This study is divided into five chapters as follows:

Chapter One elaborates on the background of the study, problem statement, questions and objectives of the study, significance of the study, scope of the study, and organisation of the study.

Chapter Two reviews the literature related to the FDI and economic growth and determinant of FDI in Yemen. Additionally, this chapter gives a significant attention to the relationship between macroeconomic variables and business environment variable, political stability with FDI inflows in the premises of new growth theory and firm investment theory. Thus, this chapter reveals the gaps in the literature and provides suggestions for the research framework of this study.

Chapter Three presents the methodology of the study. This chapter also provides detailed descriptions on unit of analysis and data collection method. Moreover, this chapter provides explanations on the statistical techniques used for preparing data for the multivariate analysis and hypotheses testing.

Chapter Four contains the gist of the research finding. It provides a detailed description of variables data collected and descriptive analysis of variables used in the study and checks the data characteristic as stationary or non-stationary. Further analysis corresponds to the regression estimation using STATA software. Due to the relatively small number of observations of the study, compared to the parameters to be estimated, regression analysis was considered more suitable to test the predictive power of the variables of the study as well as for testing the moderating effect of political stability and economic stability on FDI.

Chapter Five summarises the study, discusses the important findings and pin-points the contributions of this study and mentioned limitations encountered. This chapter also provides some suggestions for future research work.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter gives a broad review of the past literature pertaining to various aspects and issues of Foreign Direct Investment (FDI) flows related to economic growth of the country. This chapter explains the dependant variable, independent variables and moderating variables in the light of recent available refereed journals, articles, books, and international reports. In addition, this chapter also discusses the underpinning theory related to the various determinants of the FDI in a developing country such as Yemen.

2.2 Foreign Direct Investment (FDI)

2.2.1 Definition of FDI

Different definitions of FDI have been proposed in the economic and international business literature. However, the International Monetary Fund (IMF) (1993) defined FDI as the investment made to obtain lasting interest in a business that operates in an economy other than the investors' economy, where the investor aims to have an effective voice in the running of the enterprise. The definition indicates that foreign capital inflows into the host country via foreign investment is aimed at acquiring long lasting interest in the business enterprises to be carried out by the investor. The investor's main reason is the acquisition of an effective control over the management of business.

Accordingly, the foreign body of linked entities that invests is called the direct investor. The subsidiary, or the business enterprise, in which the direct investment is made is referred to as the direct investment enterprise. Korpi

(1989) stated that under FDI in the corporate sector, a foreign investor either holds 10 percent shares or voting power in the management decision making. Generally, FDI is linked to international capital inflows in real terms, and hence offering an external capital source with both managerial and technical skills in the host country's business operation.

UNCTAD (2014) defines FDI as "a long-term investment involved between two economies that reflects a certain control of a resident entity in one economy by an enterprise resident in another economy" (p.3). Another definition of FDI is offered by Dunning (1988), who states that FDI is an activity which is controlled and organised by companies in host countries. Bitzenis (2006) concludes that the "key features of the FDI are investing, acquiring and obtaining a foreign firm or asset and influencing/controlling the management operations" (p. 88).

FDI has three components. It consists of equity capital, intra-firm loans, and reinvestment of retained earnings. In addition, FDI can either be horizontal or vertical. From the perspective of a particular country, it can be divided into two types: FDI flows may be inward (a foreign country invests in the country in question), or outward (the home country invests abroad). FDI flows take several forms such as the establishment of a new enterprise, the expansion of an existing either as a branch or as a subsidiary, or the establishment of an overseas business enterprise or its assets (Buckley, Buckley, Langevin & Tse, 1996).

Moreover, FDI defined by the World Bank Group as "the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise, operating in an economy other than that of the investor and can be further developed as the sum of equity capital, reinvestment of earnings, other long term capital, and short-term capital as shown in the balance of payments in that economy (World Bank, 2008).

The UNCTAD (2012) defines FDI as an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor. The investor's aim through FDI is to gain an effective voice in the management of the enterprise. This implies that direct investors are able to influence the management of an enterprise, yet does not imply absolute control. The most important characteristic of FDI, which distinguishes it from the foreign portfolio investment, is that it is undertaken with the intention of exercising control over an enterprise. On the other hand, The Organisation for Economic Co-operation and Development (2014) defines FDI as a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor.

In other words, direct investment is referred to as a "direct investment enterprise". According to UNCTAD (2014), once a direct investment enterprise has been identified, it is necessary to define which capital flows between the enterprise and entities in other economies should be classified as FDI. Only the capital that is provided by the direct investor either directly or through other

enterprises related to the investor should be classified as FDI. The forms of investment by the direct investor that are classified as FDI are equity capital, the reinvestment of earnings and the provision of long-term and short-term intra-company loans (between parent and affiliate enterprises) (UNCTAD, 2014).

Owing to the lack of extensive studies concerning the pertinent issues in Yemen, this study is limited to the available studies in extant literature to obtain evidence and provide a clarified overview towards achieving the study objective in the course of investigation and analysis.

2.2.2 Classification of FDI

There are various major types of FDI and a review of these types would provide a better understanding of the foreign capital in terms of its nature and in real terms for practical considerations.

2.2.2.1 Inward Foreign Direct Investment

This type of investment is a part of long term capital inflows into the country that is aside from foreign aid, portfolio foreign investment or external borrowings. Inward FDI flows indicate that the investment is carried out by an entity that is external to the host country from the investor's home country.

2.2.2.2 Outward Foreign Direct Investment

This type of investment is a part of long term capital outflows coupled with aid, portfolio investment or repayable external debt, done by an entity from a home country to the host country.

2.2.2.3 Horizontal Foreign Direct Investment

This is investment conducted by a multi-product firm in the same production plants line situated in various countries.

2.2.2.4 Vertical Foreign Direct Investment

This type of investment has the real investment procedure categorised into upstream and downstream phases and it is only transferred abroad following the complication phase. The newly developed assembly plants' require parts and components that are usually supplied through exports from home country suppliers. According to Lipsey and Weiss (1984), vertical FDI aims to leverage scale economics at various phases of production stemming from vertically integrated product relationship in terms of resource positions.

2.2.2.5 Greenfield Foreign Direct Investment

This type of FDI is the type where Multinational Company (MNC) develops novel facilities and production plants in the host country.

2.2.2.6 Brownfield Foreign Direct Investment

This type is a result of mergers and acquisitions that is related to foreign capital management. It implies that the MNCs or their associates are inclined to merge with or acquire an existing firm in the host country that would later constitute as the MNCs affiliate.

2.2.3 The Role of FDI in Economic Growth

In the recent literature, FDI is often acknowledged as a driver of growth in a developing country in the current era. Some well-known scholars such as Badr

and Ayed (2015), Musibah et al. (2015), Temiz and Gokmen (2014), Kahouli, Omri and Chaibi (2014), AL-Shebami et al. (2013), Mahdi et al. (2011) explored and analysed the role of FDI in developing nations, like Yemen in the Middle East and North Africa (MENA) region and they revealed the importance of foreign investment for the development of the country. Other studies like Nahidi and Badri (2014) examined the impact of economic growth on FDI inflows and reported a positive effect in the host country. Further study (Hayat, 2014) revealed a positive effect of FDI on economic growth. Some other studies (Gala & Rocha, 2009; Mansfield & Reinhardt, 2008) envisaged that outward looking developing nations have been more successful in attracting FDI inflows.

In literature dedicated to 'whom', 'what extent', and 'how' does FDI impact economic growth. It is claimed that FDI could directly influence economic growth and development of process as it drives better use of resources, technologies transfer and managerial skills transfer to host countries. Aside from this, foreign investments indirectly encourages the growth rate of the host countries via facilitation and training skilled labour, resources, acquisition and employing the novel technique of organisational planning (Hunter & Saldana, 2013; Mahmood, 2013).

Few studies have mentioned that FDI have largely focused on the three sets of macroeconomic factors that impact FDI namely cost reducing factors, business operation and industrial environment improving factors, and finally, macroeconomic policies and developmental strategy factors of a country (Enu, Havi & Attah-Obeng, 2013; Dumludag, 2009; Dumludag & Sukruoglu, 2007).

As an alternative, there may be a direct export promotion strategy which promotes investment for exportable items to be manufacturers by the foreign and other relevant domestic enterprises related to the exporting industries (Sharma & Bandara, 2010; Hakro & Ghumro, 2007; Ciruelos & Wang, 2005; Chakrabarti & Scholnick, 2002; Gordon, 2001). The above studies attempt to explain why FDI is advantageous to the host countries for their economic growth on the basis of export-led growth strategy.

On the other hand; Alfaro (2014), Yasuda and Watanabe (2014) Alvarez and Marin (2013) stipulated the FDI role towards economic growth of developing countries. It has been noted that developing countries extensively acknowledge the FDI flows representation of additional sources of capital to economies in need of additional capital, technical know-how and technology transfer, positive employment effect and balance of payment enhancement positions. This awareness of the advantages of FDI has led to the softening of attitudes of the developing nations towards FDI and foreign enterprises. As a result, in the current era, a growing trend of competition has been noted among developing countries to confer several advantages by providing different types of incentives for FDI attraction for their benefit.

Some other empirical research; (Alfaro, Chanda, Kalemli-Ozcan & Sayek, 2004; Makki & Somwaru, 2004; Campos & Kinoshita, 2002 and Zhang, 2001) traced the association between FDI and economic growth. Specifically, Zhang (2001) study concluded that FDI support economic growth in countries characterised by well developed infrastructure and a certain level of trade openness and political stability and where their FDI policies are more open and liberal. Along a similar line of finding, Chaudhry et al. (2014) and Saqib

33

(2014) claimed that the growth effects of FDI are more significant in nations with well-educated work force and better export policies compared to import policies.

In similar contention, Dunning and Lundan (2008) examined the institutional reforms and FDI in European Transition Economies (ETE) and emphasised the significance of institutional infrastructure and institutional reforms as major FDI inflows determinants into ETE. Also, Mickiewicz (2005) studied FDI and employment relationship in EU during the economic recovery. He examined the significance of FDI to job preservation and creation and their role in changing the culture of employment. The study involves the case of Hungary, Slovakia, Estonia and Czech Republic. The study demonstrates a descriptive stage model of FDI progression into the economic change. It examined the employment possibilities of the growth model and observed the FDI's role in the employment creation and preservation is successful in Estonia and Hungary. The study noted the extensive differences in sectorial distribution of FDI throughout countries directly linked to the FDI inflows per capita. A great change occurred that the FDI will result in diverse fund of spill over and transfer of skills in developing countries. Moreover, when existing investing policies fail to solicit high order of FDI inflows, then it is crucial for policy makers to consider attracting many types of FDI in allied sectors of the economy.

Other studies such as Chaudhary, Iqbal and Gillani (2009) contended that the fastest economic growth is driven by FDI, along with other factors like employed labour force, human capital index, domestic savings and the balance of payments. In the context, of China, Mah (2010) empirically examined the

34

influence of FDI inflows on the country's economic growth and claimed that economic growth has led to significant effect on the FDI inflows into the country's economy as opposed to FDI turning out to be the driver of growth.

In the past two decades, the developing countries have been struggling to increase the FDI inflows in their advantage as they acknowledge FDI to be the catalyst agent for economic growth. Researchers investigated the impact of FDI on Yemen's economic growth with the help of Endogenous Growth Model. They determines variables highlighted by Musibah et al. (2015) and Daniele and Marani (2006) in association with the effect of the MENA countries' economic growth like FDI, employed labour force, human capital index, domestic savings, capital formation and Balance of payment.

According to Khan and Khan (2011) and Zaidi (2004) the economic policies followed by the host country considerably impacts the foreign investors' decisions. In order to attract FDI inflows, the host country should therefore look into concrete and investor friendly policies. They added that it is also important to concentrate on the provision of a well developed infrastructure to encourage foreign investors.

Moreover, positive relationship between economic growth and FDI was found in few studies, such as Nair-Reichert and Weinhold (2001) and Zhang (2001). The argument related to negative relationship is also found in other studies (Bayar, 2014; Curwin & Mahutga, 2014; and Mencinger, 2003). Still, some studies are of the view that there is either no or weak relationship between FDI and economic growth (Badr & Ayed, 2015 and Temiz & Gokmen, 2014).

Though, using different approaches, the FDI related studies are concluded in heterogeneous results.

The economic growth, FDI and economic development related study was conducted by Mencinger (2003) in the Arab countries. In the results of this study, on the growth of Arab countries the influence of FDI was considered significant if a relationship was found with financial variables at the mentioned threshold development level. The study also supported that the FDI promotion related policies will bring more investors to the related countries which will in turn improve the economic growth.

In the study of Li and Liu (2005), the impact of FDI on the economic growth was found. The data used in the study was panel and was gathered from 84 countries in the period of 1970 to 1999. The approach of simultaneous and single equation was employed. The results show the relationship between FDI and economic growth which is positive and endogenous. The study of Eller, Haiss and Steiner (2006) gathered panel data from 11 countries of both Central and Eastern European countries for the purpose of finding out the influence of FDI of financial sector on the growth of economy with the help of using efficiency channel for the time period 1996 to 2003. The results emphasised the impact of foreign investments the growth of emerging markets.

Malaysia, Chile and Thailand were considered in the study of Chowdhury and Mavrotas (2006) and the data used was for the period of 1969 to 2000. This study used net methodology for checking the causality relationship between economic growth and FDI. The study made a conclusion that in Chile, FDI is caused by GDP. While in the case of Malaysia and Thailand, the relationship

of causality is considered bi-directional. The data from the period of 1974 to 1994 was used in the study of Pournarakis and Axarloglou (2007) for investigating the influence of FDI on economic growth.They find that the labour cost effects of FDI vary by industry.

The study of Mum, Lin and Man (2008) the annual data related to the economy of Malaysia was used with OLS regression technique to illustrate the relationship of FDI on the growth of economy. The data was for the period 1970 to 2005. The study resulted a positive relationship between the variables.

12 Asian countries were considered in the study of Wang and Wong (2009) and the data was for the period of 1987 to 1997. It was used for the purpose of finding out the impact of FDI on the economic growth. The study resulted a positive relationship between the inflow of FDI and economic growth by endogenous growth theory. In this study, FDI was used in different sectors and resulted that economic growth is enhanced by FDI in the sector of manufacturing but in non-manufacturing sector, there is no influence. 66 developing countries were considered by the study of Duttaray, Dutt and Mukhopadhyay (2008) for finding out the relationship of causality between economic growth and FDI. The influence of FDI on growth was found in 29 countries, but the effect of economic growth on FDI was not found.

The study of Ang (2008) indicated the FDI growth nexus in Malaysia to understand the relationship between FDI, economic growth. In this study, the data used was from 1965 to 2004 and was time series and the results of the study shows positive relationship of FDI and economic development with

output in long run. In the results of this study, in the long run, the growth of FDI is caused by economic growth.

In Thailand, the role of FDI and economic development was examined by Ang (2008) with the help of annual time series data for the period of 1970 to 2004. The study made an argument that if the financial system is considered better in an economy then the FDI can bring more benefits. The result of this study has shown that economic growth negatively influenced FDI. The data used was for 126 developing countries and was for the period of 1985 to 2002 which was to check the influence of FDI and portfolio investment on the growth of economy (DeVita & Kyaw, 2009). The results of the study reveal a positive relationship of FDI on economic growth in developing countries which has the upper middle and lower middle income but is not considered for low income.

The study of Kundan (2010) utilised aggregate annual time series data for the period of 1980 to 2006 in the country of Nepal for the purpose of indicating the associate between the economic growth and FDI. The Granger causality test and OLS approach was used in the study and resulted that the relationship of the mentioned variables and the relationship of causality from FDI to Gross Domestic Product Growth Rate.

In Pakistan, the study of Shahbaz and Rahman (2010) made an effort for finding the influence of FDI and development of economic growth. In this study, the annual data series was used taken from World Bank and economic survey the time period included in the data was 1971 to 2008 and then the testing approach of restricted ARDL to ECM and co-integration was used for

short and long run relationship. The results of the study show a positive influence of FDI on economic growth.

Secondary data was used by Chaudhry, Mehmood and Mehmood (2013) which was taken from Development indicators and covered the period of 1985 to 2009. A positive influence of FDI on economic growth is revealed in the empirical evidence.

On the other hand, in India, considering the relationship of FDI and economic growth of pre and post 1991, the study of Kaur, Yadav and Gautam (2013) found a positive relationship using Toda-Yamamoto granger causality technique.

In Sudan, the Granger causality and Johansen co-integration approach was used by Arabi (2014) for the period of 1972 to 2011 for the purpose of finding the causality relationship between the mentioned variables. In this study, the approach of ARDL to co-integration was used by Pesaran and Shin (1999) for the purpose of finding both short and long run relationship between FDI and economic growth. The results of this study, it has been indicated that the causality relationship of FDI and economic growth is uni-directional and the movement is from FDI to economic growth.

The performance of Arab countries in the attraction of FDI is considered very poor in the study of Krogstrup and Matar (2005) if a comparison is made with other developing countries. Hence, the Arab countries might consider in missing out the development and growth, Thus, the effect of FDI on economic growth is very weak.

In Arab countries like the influence of FDI was found in the study of Omran and Bolbol (2003) which is positive on growth at a mentioned threshold level of development. In the context of Gulf Cooperation Council countries, panel data of the period 1980 to 2002 was used by Mina (2007) concluded that degree of openness and infrastructure are factors that encourage FDI to the GCC countries.

The COMESA (Common Market for Eastern and South Africa) was considered by the study of Shiferaw-Mitiku (2014). The study used secondary data. The study found that Northern and Western sub-region of Africa exhibited the highest FDI inflow against the rest of African sub-regions. Majority of successful African countries in FDI inflow is mainly because their focus is targeted on addressing on the major constraints of their country and providing priority and incentives to foreign investors.

In a related study, Wang (2009) examined inward FDI and economic growth among 12 Asian economies with the data obtained over the period 1987 to 1997. The study obtained mixed results may be attributed to the use of total FDI as a variable. However, the study contributed by suggesting that FDI in manufacturing sector significantly and positively impact economic growth in the host economies. On the other hand, Wang (2009) also noted that FDI inflows in non-manufacturing sectors failed to play a key role in improving growth in the economy.

2.4 Independent Variables (IVs) and FDI

In the present study, the dependent variable (DV) is constructed mainly from the gross inflows of FDI in Yemen for the period of 1985 to 2014 as reported

in the World Investment Reports, published by the UNCTAD and from the recent studies. Literature review of macroeconomic determinants and business environment determinants are discussed as follow:

2.4.1 Macroeconomic Determinants

2.4.1.1 Gross Domestic Product Growth Rate (GDPGR) and FDI

The focus of researchers in economic literature has always been on the functional relationship between the GDP and FDI and vice versa. The extended Gravity Model was employed by several studies where GDP is included as an explanatory variable to determine the countries' economic size – these include Martinez-Zarzoso and Nowak-Lehmann (2004) and Martinez-Zarzoso (2013). Specifically Martinez-Zarzoso and Nowak-Lehmann (2004) reached to the conclusion that the greater the home countries income, the larger is the enabled and induced source of funds to be invested in businesses abroad. Both GDP and GDP growth rate indicates the national income growth of the economic performance of the country, which is shown through production, consumption, good delivery and facilities provided in the country. The trend of GDP also shows the country's level of economic development in relation to its growth rate and its possible opportunities in the domestic market in the investors' point of view.

Macroeconomic conditions are essentially expected to influence FDI. However, Woodward, Rolfe, Guimaraes and Doupnik (2000) claimed that countries having greater GDP per capita are expected to boost FDI, and encourage future MNCs to invest, particularly in cases of consistent growth. High economic growth rates are more likely to attract investors to identify market potential for greater return values on investments which are limited to

41

higher FDI levels (Biglaiser & DeRouen, 2006; Tuman & Emmert, 2004; Birch & Halton, 2001).

Based on UNCTAD (2005, 2000) report, some FDI trend in the context of developing countries generally cater to the host country market. It is evident that the size of domestic market and market should be considered as the primary determinants that attract this group of foreign investors. Many researchers (e.g. Kumar, 2014 and Barros et al., 2013) explained the relationship among GDP growth rate and showed that GDP growth rate significantly impacted FDI inflow in many countries.

Hansen (2014) revealed that host country GDP growth rate is proved to have a negative effect on FDI for Czech Republic (CZ) and Poland, This could suggest that these countries have experienced negative growth rates in FDI inflow while GDP increases, implying that investors invest less despite the increased GDP, but a positive effect for the cluster Central and Eastern European Countries (CEEC) during 1996 to 2012 by raising GDP and government expenditure play an important role in attracting FDI inflows. Nunnenkamp (2004) also comprehensively explained the FDI determinants and highlighted that the GDP growth rate in the context of the broader developing economies. Fernajndez-Arias and Hausmann (2000) claimed that poor performers, in light of lower GDP growth rate and macroeconomic stability also attract higher foreign investment. They provided an evidenced that countries possessing poorer institutions failed to attract higher FDI inflows as a share of total private capital flows into their economies.

In Mencinger (2003), comprehensive study involving eight transition countries namely Estonia, Hungary, Slovakia, Slovenia, Czech Republic, Poland, Latvia and Lithuania from 1994 to 2001, a negative correlation was revealed between real GDP growth and FDI inflow. This is contrary to the findings reported by Cheng and Kwan (2000) who stated that GDP growth rate was found to positively impact FDI. Meanwhile, Uppenberg and Riess (2004) highlighted the issue of foreign investment and GDP growth rate by comparing it to the relationship between GDP growth rate and FDI. They stated that a significant positive relationship exists between inward FDI and GDP exists but it is still ambiguous as to whether or not the causality really exists from the direction of FDI to GDP growth rate. They reached to the conclusion that GDP growth rate is generally a significant determinant of FDI as opposed to just policy strategies developed for the attraction of FDI inflows. This study is related to the case of European countries.

Additionally, Fedderke and Romm (2006) investigated the case of South Africa for the period 1956 to 2003 and reported that GDP growth rate of market size, so long as they are integrated into the global economy, is significant in the determination of the FDI levels in the country. Moreover, Mitze (2011) revealed that the host country's GDP growth rate positively impact flows of direct foreign investment. His study involved 27 Western and Eastern European countries with the data collected for the period of 1994 to 2000. He showed that GDP growth rate positively and significantly affected FDI.

Study in Nigeria by Okafor (2012) for the of period of 1970 to 2009 found a positive relationship between GDP growth rate and FDI. By using panel data from 60 low-income and lower-middle income countries, Mottaleb (2007) and

43

Mottaleb and Kalirajan (2010) found that high GDP growth rate encourage FDI inflow in the developing countries. Mukhtar et al. (2014) also found a significant impact of GDP growth rate on the FDI towards developing countries.

The study by Mahmoodi and Mahmoodi (2014) in Asian Countries (three developed countries namely Hong Kong, Singapore and South Korea, and eight developing countries namely Bangladesh, India, Malaysia, Oman, Pakistan, Philippines, Srilanka and Thailand) over the 1986 to 2010. The results of causality from developed panel indicate a unidirectional causality from GDP growth rate to FDI and from developing panel indicates a unidirectional causality from GDP growth rate to FDI .

By using a panel data on 52 middle income countries for the period of 1984 to 2012, Mina (2014) found that there is an effect of GDP growth rate on FDI in addition to other factors.

In India, the study by Pradhan and Kelkar (2014) by using Time Series Data over the period 1991 to 2012, indicated positive relationship between GDP growth rate and FDI. In North African countries, such as Egypt, the study by Badr and Ayed (2015) for the period of 1961 to 2012, found that FDI is explained by GDP growth rate. And in the context of Yemen, AL-Shebami et al. (2013) found a negative correlation between GDP growth rate and FDI inflow for the period from 1991 to 2008, and Musibah et al. (2015) in same context found a negative relation between GDP growth rate and FDI inflow for the period of 1990 to 2013.

Based on the above discussion, in line with the traditional line of analysis in a developing country like Yemen, this study consider GDP growth rate as a significant factor and it seeks to investigate the impact of GDP growth rate on Yemen's FDI.

Table 2.1
Summary of Studies that Examined GDPGR and FDI

Author (s)	Objective	Methodology	Findings
Badr and Ayed (2015)	Examine the various factors that attract FDI in North Africa countries (Egypt, Tunisia, Algeria and Morocco)	Used multiple regressions for the period of 1961-2012.	There is a positive significant relationship between GDPGR and FDI Egypt, Tunisia and Algeria but is not significant in Morocco.
Musibah et al. (2015)	Examine the determinants of FDI in Yemen.	Augmented Dickey-Fuller test, multiple an heretical regression, from 1990 - 2013.	There is a negative significant relationship between GDPGR and FDI.
Hansen (2014)	To evaluate when FDI can enhance economic growth for Czech Republic, Estonia, Hungary, Latvia and Poland.	A panel data set and employing a Hausman Taylor estimation method for the period of 1996 - 2012.	GDPGR has a negative effect on FDI for Czech Republic and Poland, but a positive effect for the cluster Central and Eastern European Countries.

Table 2.1 (Continued)

Author (s)	Objective	Methodology	Findings
Kumar (2014)	To analyse the relationship between FDI and economic growth in India.	The linear correlation analysis for the period of 2000 - 2014.	GDPGR significantly impacted FDI inflow.
Mahmoodi and Mahmoodi (2014)	Examine the relationship between FDI, and economic growth in two panels of Asian countries (three developed and eight developing countries)	Panel-VECM causality based on Wald test over the 1986 - 2010 years.	The results of causality from developed panel indicate a unidirectional causality from GDPGR to FDI.The results of developing panel indicates a unidirectional causality from GDPGR to FDI.
Mina (2014)	Examine the relationship between social cohesion and FDI flows, in 52 middle income countries.	Panel data for the period of 1984 - 2012.	There is an effect of GDPGR on FDI.
Pradhan and Kelkar (2014)	Investigation into the macroeconomic determinants of FDI inflows in India.	Time series data over the period 1991 - 2012.	GDPGR has a positive impacts on FDI inflow.

Table 2.1 (Continued)

Author (s)	Objective	Methodology	Findings
Mukhtar et al. (2014)	To evaluate the effect of determining factors of FDI in developing nations.	Used regression analysis.	A significant impact of GDPGR on the FDI towards developing countries.
Martinez-Zarzoso (2013)	Evaluate the determinants of bilateral trade flows among 47 countries.	Applied a generalised gravity model.	A high level of income in the host country implies high level of production which attracts the investors'confidence to invest in the host country.
AL-Shebami et al. (2013)	Investigation into the macroeconomic determinants that play a major role in influencing FDI inflows to Yemen.	Auto Regression Distributed Lag (ARDL), the period from 1991-2008.	A negative correlation was revealed between GDPGR and FDI inflow.
Barros et al. (2013)	Analyses FDI in 27 Asian countries.	Using a panel data and regression, for the period of 2003 - 2011.	The analysis by quantile confirms that GDPGR tend to attract FDI inflows than smaller ones.
Okafor (2012)	The role of key domestic macroeconomic variables on FDI in Nigeria.	By using panel data, Ordinary Least Square (OLS) technique from 1970 - 2009.	There is a positive relationship between GDP and FDI.

Table 2.1 (Continued)

Author(s)	Objective	Methodology	Findings
Mitze (2011)	Analyse the nature of German trade - FDI linkages within the EU 27 countries.	Using regional data for the period of 1994 -2000.	GDP positively and significantly affected FDI.
Mottaleb and Kalirajan (2010)	Strived to identify the factors that determine FDI inflow to the developing countries.	Using panel data for the period of 2005 - 2007.	Countries with larger GDPGR are more successful in attracting FDI.
Mottaleb (2007)	To determine FDI inflow in 60 developing countries.	Using panel data from 60 low income and lower-middle income countries for the period of 2003 – 2005.	Found that countries high GDPGR can successfully attract FDI and FDI on the other hand, significantly affect economic growth.
Biglaiser and DeRouen (2006)	To explain the effect of different economic reforms for attracting (FDI) in Latin America.	Panel data OLS estimates for the period of 1997 – 2000.	Countries with high per capita GDPGR has a significant and negative with FDI.
Fedderke and Romm (2006)	To examine the determinants of FDI in South Africa.	For the period of 1956 – 2003.	GDPGR is significant in the determination of the FDI levels in the country.

Table 2.1 (Continued)

Author(s)	Objective	Methodology	Findings
Chantasasawat and Institute (2005)	Competitiveness analaysis of China, Asia and Latin America regarding FDI.	Panel regression for Latin America from1990 - 2002, and for Asia from 1985 -2011.	GDPGR is important to enhance FDI.
MartAnez-Zarzoso and Nowak-Lehmann (2004)	Evaluate the determinants of bilateral trade flows among 47 countries such as the European Union (EU) and the North-American Free Trade Area (NAFTA)	Applied a generalised gravity model.	A high level of income in the host country implies high level of production,which attracts the investors'confidene to invest in the host country.
Nunnenkamp (2004)	To exmaine FDI towords achieving international development goals.	The regression coefficient, for the period of 1980 – 2001.	GDPGR affect significantly on FDI.
Tuman and Emmert (2004)	This study examines the political and economic determinants of US (FDI) in Latin America.	OLI Model, for the period of 1979 -1996.	GDPGR are found to have a statistically significant effect on the investment behavior of US.
Uppenberg and Riess (2004)	Examine determinants of FDI in Central and Eastern Europe.	From 1980 - 1990.	A strong positive relationship between GDPGR and FDI.

Table 2.1 (Continued)

Author(s)	Objective	Methodology	Findings
Mencinger (2003)	The relationship between GDPGR and FDI in Estonia, Hungary, Slovakia, Slovenia, Czech Republic, Poland, Latvia and Lithuania.	From 1994 - 2001.	Anegative correlation between real GDP growth and FDI inflow.
Birch and Halton (2001)	Study the determinates of FDI in Latin America.	In the 1990s.	High GDP growth rate are more likely to attract FDI.
Cheng and Kwan (2000)	In 29 chinese regions.	From 1985-1995.	Found that GDP growth rate to positively impact FDI.
Fernajndez and Hausmann (2000)	Study the New Wave of Capital Inflows in Latin America.	From a theoretical point of view in the 1990.	Lower GDP growth rate and macroeconomic stability attract higher FDI.
Woodward et al. (2000)	Study the GDP growth rate and FDI in central europe.	For the period of 1990 -1993.	GDP growth rate has positive relation with FDI.

2.4.1.2 Degree of Openness (DoP) and FDI

Several studies were carried out to examine the influences of DoP on FDI. DoP refers to literature concerning the relationship between FDI and trade has been mainly limited to export substituting or export-complementing nature of FDI. Nevertheless, the relationship between FDI and DoP has a tendency to be complex in the current era where several developing nations have began to

50

liberalise their imports and enter into trading arrangements (bilateral or multilateral) around the globe.

Apparently, specific markets consideration are determined by their size and growth but domestic market factors are of no much less significant to export oriented foreign firms. Various surveys evidenced that open economies garner higher FDI. A main indicator of trade openness of a country is the relative size of its external sector and the composition of its exports size. For instance, China revealed to have attracted much foreign investment into the export sector. FDI reflects the control of investors over production and the constant capital flow. It is impacted by server factors including technology and assets that are firm-specific (Markusen & Venables, 1999).

Some studies (e.g. Ponce, 2006; Navaretti, Venables & Barry, 2004; Markusen & Maskus, 2002) revealed that the DoP impact on the FDI inflow in the economy has a tendency to differ for every intention behind developing FDI attractiveness in business activities. As a result, a greater level of openness can be related with low FDI degree. Nevertheless, horizontal investments seeking markets may also have a tendency to explore markets of export oriented FDI. In this case, higher levels of openness lead to positive FDI inflows. In this regard, Cantah, Wiafe and Adams (2013), Shapiro (2011), Majeed and Ahmad (2009, 2002) and Chakrabarti and Scholnick (2002) revealed a positive relationship between the DoP and FDI inflows in the context of developing nations.

Similarly, Bevan and Estrin's (2004) study examined the trade freedom around the globe with the potential export tendency of the multinational firms in the

51

host country in light of their economic openness. They examined EU's imports while keeping their exports subjected to domestic and EU-15 trade policy regulations under consideration. Greater level of openness is the reason behind higher FDI flows in the country. The primary underpinning reason is the fact that more MNCs are characterised as export-oriented. The MNCs look to gain advantages from export expansion policies and import of machinery's for production process in the home country.

Handful studies have concentrated on the effect of specific policy variables including DoP. Moreover, Asiedu's (2006) research concentrated on developing nations' policy reforms in an attempt to examine the FDI inflows determinants. He found DoP has a tendency to function as significant determinants of FDI inflows. Similarly, Markusen and Maskus (2002) also reported a positive effect of DoP and FDI.

Countries having greater international trade levels are more successful in capturing FDI inflows (Binh & Haughton, 2002) because they import many goods and services, indicating that the economy has a good purchasing power. In Ghana, Grosseand Trevino (1996) found that DoP impacted FDI inflows. Meanwhile, in Malaysia, DoP was reported to be a determining factor of FDI inflows (Baharom, Habibullah & Royfaizal, 2008).

In the context of Ethiopia, Haile and Assefa (2006) studied FDI determinants with the help of time series data for the period of 1974 to 2001. They revealed that the DoP is significant and positively associated with FDI inflows. Furthermore, Seim's (2009) examination of the DoP and FDI relationship in

several countries confirmed that the DoP variations stems from the differences in the FDI inflows proportions.

Zakaria, Naqvi and Fida (2014) studied the impact of DoP on FDI in Pakistan using quarterly data for the period of 1972 to 2010. The study revealed a significant positive effect of DoP on FDI.

By using the data for selected North Africa countries study by Badr and Ayed, (2015), covering the period of 1961 to 2012, suggest that FDI is explained by the DoP. Study by Offiong and Atsu (2014) found a positive relation of DoP in Nigeria on FDI during 1980 to 2011.

Table 2.2
Summary of Studies that Examined DoP and FDI

Author(s)	Objective	Methodology	Findings
Badr and Ayed (2015)	Examine the various factors that attract FDI in North Africa countries.	Used multiple linear regressions, covering the period of 1961-2012.	FDI is explained by DoP.
Offiong and Atsu (2014)	Study the determinants of FDI in Nigeria.	The multiple regression equation , during 1980 -2011.	A positive relation of DoP on FDI.
Zakaria et al. (2014)	Exmine the impact of trade openness on FDI in Pakistan.	Used quarterly data for the period of 1972 – 2010.	A significant positive effect of Dop on FDI.
Cantah et al. (2013)	Study the FDI and trade policy openness in Sub-Saharan Africa.	A panel model.	A positive relationship between DoP and FDI.

Table 2.2 (Continued)

Author(s)	Objective	Methodology	Findings
Shapiro (2011)	FDI in Developing Nations.	Panel data for the period of 2000 – 2002.	A positive relationship between DoP and FDI.
Majeed and Ahmad (2009)	Analysis of Host country characteristics that determine FDI in 72 developing Countries.	Panel data using the (GMM) for the period of 1970 - 2008.	Positive effect of DoP on FDI flows to developing countries.
Baharom et al. (2008)	Examine the bilateral trade agreement of sixteen asian countries.	From 1990 - 1999.	DoP was reported to be a determining factor of FDI.
Asiedu (2006)	Examine the FDI inflows determinants in 22 countries.	Used a fixed-effects panel estimation over the period 1984 - 2000.	The level of openness has a significant determinants of FDI.
Haile and Assefa (2006)	Determinants FDI in Ethiopia.	Time series data for the period of 1974 - 2001.	DoP is significant and positively associated with FDI.
Majeed and Ahmad (2006)	To determinants of exports in 75 developing countries.	The panel data model for 15 years.	Positive effect of DoP on FDI.
Ponce (2006)	Study on the performance of Latin American governments in attracting FDI.	Panel data model for the period ranging from 1985 – 2003.	Revealed that the DoP impact on the FDI inflow in the economy.

Table 2.2 (Continued)

Author(s)	Objective	Methodology	Findings
Bevan and Estrin (2004)	Determinants of FDI into European transition economies.	Using a panel data over period 1994 - 2000.	Greater level of DoP is the reason behind higher FDI flows.
Navaretti et al. (2004)	Multinational firms in the world economy.	Used regression analysis.	DoP affecting the inflow of FDI in an economy tend to vary as per the aspiration for the attractiveness of FDI.
Binh and Haughton (2002)	Estimates the effects of the Bilateral Trade Agreement (BTA) between US and Vietnam.	Single data from sixteen Asian countries from 1990 – 1999.	Countries having greater DoP are more successful in capturing FDI inflows.
Chakrabarti and Scholnick (2002)	Study FDI Flows in from the United States to 20 OECD countries.	A panel data of FDI flows from 1982 - 1995.	A positive relationship between the DoP and FDI inflows.
Markusen and Maskus (2002)	Theories of the Multinational Enterprise: US FDI activity as case study.	Panal data over the period of 1986 -1994.	Openness degree impact on the FDI inflow in the economy.
Markusen and Venables (1999)	Effect of FDI of a local firms in the same industry.	Cumulative causation analysis.	China was revealed to have attracted much FDI into the DoP.

2.4.1.3 Exchange Rate (EXR) and FDI

Currently, EXR is considered to be one of the new and most critical issues addressed in literature of economics (Brixiova, Egert & Essid, 2014; Pan & Song, 2014; Mohamed & Sidiropoulos, 2010). An association between FDI and EXR has been contended. With the devaluation of the country's currency, a chance arises for foreign investors to invest in the country to purchase reasonably cost assets. This is particularly true in the case of foreign firms that have certain potentiality in their targeted markets (Busse, Hefeker & Nelgen, 2013).

In this context, Dumludag (2009) studied the FDI determinants in institution context in Turkey and showed that EXR positively affect FDI. Along a similar line, Kaya and Yilmaz (2003) employed data for the period 1970 to 2000 in an attempt to examine EXR as FDI determinants in Turkey. The EXR and FDI inflows relationship was also examined by Ngowani (2012) and he showed that FDI inflows negatively related with the Zambia EXR.

A thorough examination of the EXR risk effects and expectations on FDI inflows revealed that reductions in the US direct investment that are related with the increased in the current value of the EXR and significant reductions in the same related with the expected appreciation of real foreign exchange. Researchers such as, Kiyota and Urata (2008) and Blonigen (1997) supported similar findings, where indicated that EXR of US may prevent FDI inflows into the country.

The determinants of FDI inflows were also examined by Maniam (2007) in the context of Latin America over the of period of 1975 to 2003. He established

FDI increase in Latin American and confirmed the significant relationships among the EXR and expectations of investors. Meanwhile, Jeon and Rhee (2008) focused on the FDI inflows determinants of Korea from the US for the period of 1980 to 2001. The study revealed that Korea's FDI inflows from the US significantly relates to the EXR.

Literature reviewed revealed the effect of exchange rate on the FDI inflow. Specifically, Bleaney and Greenaway (2001) focused on the influence of the level and volatility of real effective rate of exchange on investment and growth of 14 Sub-Saharan African countries. They showed that EXR volatility generated a significant negative impact on FDI. A same result in Malaysia by Tang, Yip and Ozturk (2014) found anegative influence of the EXR on FDI.

Other studies focusing on the African Economic Research Consortium conducted by Ajayi (2006), Khan and Bamou (2006), and Mwega and Ngugi (2006) acknowledged the potential effect of EXR instability on FDI, but they failed to empirically examine the relationship.

The effect of EXR on FDI inflows has been extensively studied in literatures (e.g. Jenkis & Thomas, 2002; Love & Lage-Hidalgo, 2000). The above studies revealed that EXR can lead to FDI fluctuations. Hence, it can be contended that depreciation of EXR will impact the FDI inflows of a country. Kumar and Joseph (2005) employed data for the period 1980 to 1990 in their regression analysis of the variables and revealed a positive and significant impact of the EXR level on FDI. Krifa-Schneider and Matei (2010) in their study 33 developing and transition countries for the year of 1996 until 2008, where the

results indicated to have positive relation with FDI. As Mukhtar et al. (2014) found a positive relation between EXR with FDI in develping countries.

In the context of Yemen, the study by Musibah et al. (2015) in their resultes found that this variable is an important determinant of FDI inflows into the country.

Table 2.3
Summary of Studies that Examined EXR and FDI

Author(s)	Objective	Methodology	Findings
Musibah et al. (2015)	Examine the determinants of FDI in Yemen.	Augmented Dickey-Fuller test, multiple an heretical regression, from 1990 - 2013.	EXR is an important determinants of FDI inflows.
Brixiova et al. (2014)	Relationship between the real EXR and external competitiveness in Egypt, Morocco and Tunisia.	A level auto-regressive distributed lag (ARDL) over a period of 1980 – 2009.	Egypt experienced misalignment in the EXR in Morocco and Tunisia stayed closer to their equilibrium values.
Mukhtar et al. (2014)	Evaluate the effect of determining factors of FDI in developing countries.	Used regression analysis.	In developing countries EXR is positively related with FDI.
Pan and Song (2014)	The impact of EXR on FDI in China.	Augmented Dickey-Fuller test and Granger causality test from 1997 - 2013.	EXR had a significant on FDI.

Table 2.3 (Continued)

Author(s)	Objective	Methodology	Findings
Tang et al. (2014)	Study the determinants of FDI in Malaysia.	The granger causality test for the 1980 - 2008 period.	EXR is negative on the FDI.
Busse et al. (2013)	Reviewed the influence of the EXR regime on bilateral FDI flows between countries.	Panel Data for the years 1990, 1997 and 2004.	Significant effect of EXR on bilateral FDI flows in developed economies, but no significant effect for developing countries.
Ngowani (2012)	Study of Impact of EXR on FDI in Zambia.	A multiple regression analysis, using Ordinary Least Square (OLS) method from January, 2009 - April, 2011.	FDI inflows negatively related with the Zambia EXR.
Krifa-Schneider and Matei (2010)	Business climate, political risk and FDI in 33 developing countries.	Panel model for the year of 1996 – 2008.	EXR positively related to FDI.
Mohammad and Sidiropoulos (2010)	Analysis on the main determinants of FDI in MENA countries.	Panel data methodology from 1975 - 2006.	EXR is one of the most significant issues to FDI.

Table 2.3 (Continued)

Author(s)	Objective	Methodology	Findings
Dumludag (2009)	Investigated determinants of FDI in Turkey.	Questionnaire and interviewe representatives of Multinational Corporations (MNCs) in 2006.	EXR positively affect FDI.
Jeon and Rhee (2008)	The FDI inflows determinants of Korea from the US.	For the period of 1980 -2001.	The study revealed that Korea's FDI inflows from the US significantly relates to the EXR.
Kiyota and Urata (2008)	Examines the role of multinational firms in international trade for Japanese firms.	Using firm-level panel data between 1994 - 2000.	Suggested a stronger USD may deter FDI into the economy.
Maniam (2007)	The determinants of FDI inflows in the context of Latin America.	Used an OLS estimator over the period 1975-2003.	FDI significant relationships with EXR.
Khan and Bamou (2006)	Analysis of FDI in Cameroon.	The Augmented Dickey Fuller (ADF) test is used for this investigation, and (OLS) for nine years (1992/93 – 2001/02)	Failed to empirically examine the relationship between EXR and FDI.

Table 2.3 (Continued)

Author(s)	Objective	Methodology	Findings
Ajayi (2006)	The determinants of FDI in Africa.	Survey from 2000 – 2003.	Failed to empirically examine the relationship between EXR and FDI.
Mwega and Ngugi (2006)	Investigates the factors that constrain the improved net inflows of FDI in Kenya.	Using halfdecade panel data for 43 countries over 1960 – 1997.	Failed to empirically examine the relationship between EXR and FDI.
Kumar and Joseph (2005)	Study the export of software and business process outsourcing from developing countries.	Regression analysis for the period of 1980 -1990.	A positive and significant impact of the EXR level on the FDI.
Kaya and Yilmaz (2003)	Study the FDI determinants in Turkey.	Data for the period of 1970 – 2000.	The study confirmed that EXR has a positive impact on FDI inflows.
Jenkis and Thomas (2002)	To study the determinants of the FDI in Southern Africa.	Regression analysis for 1990 -1999.	Revealed that EXR can lead to FDI fluctuations.
Bleaney and Greenaway (2001)	The influence of real effective EXR on investment of 14 Sub-Saharan African countries.	Panel data over 1980 – 1995.	Showed that EXR volatility generated a significant negative impact on FDI.

61

Table 2.3 (Continued)

Author(s)	Objective	Methodology	Findings
Love and Lage-Hidalgo (2000)	Study on FDI is developed and tested on investment flows from the US to Mexico.	Using co-integration analysis between 1967 - 1994.	Revealed that EXR can lead to FDI fluctuations.
Blonigen (1997)	Study the the link between EXR and FDI in US.	Using data on Japanees acquisition in the US From 1975 - 1992.	A stronger USD may deter FDI into the economy.

2.4.1.4 Inflation Rate (INFR) and FDI

The INFR is a significant factor that influences the FDI inflows, where the high INFR indicates instability in the economy and ambiguity related with internal economic stress, and the inability of the government and the Central Bank to balance the budget through the money supply. Significant INFR are related with lower FDI inflows and a negative relationship is expected between the two. Investors generally invest in countries with stable economies as this would reflect a lower possibility of uncertainty, and hence, it is logical to expect that inflation has a tendency to negatively impact FDI. Nevertheless, less focus has been stressed on the interaction of inflation rate movements and FDI.

Among the few studies, Sayek (1999) studied the variables relationship in the context of Canada and found that the results from the impulse analysis failed to support the theoretical model proposed. He showed that the increase in

62

inflation in Canada reduced the US FDI into the country and increased the US domestic investment. He also explained that a 7 percent increase in Turkey results in the decrease of 1.9 percent of US FDI into Canada and the increase of 0.3 percent of US domestic investment. Along a similar line, Akinboade, Siebrits and Roussot (2006) demonstrated that low inflation indicates internal economic stability in the country while high inflation rates indicate the government's inability to balance its budget, and the central bank's inappropriate handling of monetary policy.

With regards to the viewpoint of multinational firms, high inflation rate has a tendency to lead to uncertainty in terms of Net Present Value (NPV) of a costly, long-term investment project and as such, companies will often steer for investments in countries characterised as having high inflation.

Meanwhile, Li and Liu (2005) focused on significant reforms and showed that companies invested less in developing countries that suffer from high rates of inflation. Frage (2008) contended that macroeconomic policy producing increased inflation chase away FDI inflows. In the past, Latin America inflation issues have led to financial collapse and capital flight. On the other hand, the cross-country data was employed by Naude and Krugell (2007) to determine the determinants of foreign FDI in the African countries. They considered INFR as independent variable while FDI as the dependent variable. They reached to the conclusion that inflation rate negatively and significantly impacts the FDI inflows in Africa. In Nigeria, Ehimare (2011) also focused on the INFR effects on FDI and its relationship with the data of 30 year time series data using linear regression analysis. He showed that INFR significantly affects both FDI inflows and economic growth.

In the context of Pakistan, Awan, Zaman and Khan (2010) empirically studied the trends of FDI inflows for the period of 1996 to 2008 and attempted to explain the way different variables impact the FDI inflows in the country. FDI inflows was considered as the dependent variable and INFR as an independent variable. Their results showed that INFR was statistically significant and positively affected FDI inflows.

The result of study by Shahzad and Al-Swidi (2013), in Pakistan for the period of 1991 to 2011 confirmed the INFR was not significant in determining the FDI inflows in the country. In the same context, other research found the same result (Anyanwu, 2012; Parajuli & Kennedy, 2010; Vijayakumar et al., 2010; Wafure & Nurudeen, 2010; Onyeiwu, 2003; Obwona, 2001).

The result of study by Musibah et al. (2015) in Yemen for the period of 1990 to 2013 confirmed that INFR was a negative significant in determining the FDI inflows in the country explaining by political stability.

Table 2.4
Summary of Studies that Examined INFR and FDI

Author(s)	Objective	Methodology	Findings
Musibah et al. (2015)	Study the determinants of FDI in Yemen.	Using regression for the period of 1991-2013.	INFR was a negative significant in determining the FDI inflows in the country explaining by political stability.
Shahzad and Al-Swidi (2013)	Study the determinants of FDI in Pakistan.	Using regression for the period of 1991-2011.	Confirmed that INFR was not significant in determining the FDI inflows in the country.

Table 2.4 (Continued)

Author(s)	Objective	Methodology	Findings
Anyanwu (2012)	Study the determinants of FDI in 53 African countries.	Using OLS and GLS over the period of 1996 – 2008.	INFR was not significant in determining the FDI inflows.
Ehimare (2011)	Study the FDI and its effect on the Nigerian economy.	Linear regression of 30 years time series.	INFR significantly affects both FDI inflows and economic growth.
Awan et al. (2010)	Study the determinants of FDI in service sectors of Pakistan.	Using panel data for the period of 1996 -2008.	The INFR relationship with FDI inflows has been positive and significant.
Vijayakumar et al. (2010)	This study examines the factors determining FDI inflows of BRICS countries.	Panel data analysis for the period of 1975 – 2007.	Confirmed tha INFR was not significant in determining the FDI inflows.
Wafure and Nurudeen (2010)	Determinants of FDI in Nigeria.	Vector error correction model.	INFR was not significant in determining the FDI inflows.
Parajuli and Kennedy (2010)	Analysed the EXR and inward FDI in Mexico from 25 developed countries.	The panel data from 1995 – 2007.	INFR was not significant in determining the FDI inflows.
Frage (2008)	The relationship between FDI and exports, for the US manufacturing industries.	Using data for 1997 - 2002.	INFR was significant with FDI inflows.

Table 2.4 (Continued)

Author(s)	Objective	Methodology	Findings
Naude and Krugell (2007)	Determine the determinants of foreign FDI in the African countries.	Using panel data over 1970 – 1990.	INFR negatively and significantly impacts the FDI inflows in Africa.
Akinboade et al. (2006)	FDI in South Africa.	From 1956 - 1975, 1977 - 1990 and 1990 - 2003.	High INFR indicate the government's inability to balance its budget.
Li and Liu (2005)	Investigates whether FDI affects economic growth of data for 84 countries.	Based on a panel over the period of 1970 – 1999.	Showed that companies invested less in developing countries that suffer from high INFR.
Onyeiwu (2003)	To study INFR and FDI in MENA countries.	Used fixed effects panel regression.	Confirmed tha the INFR was not significant in determining the FDI inflows.
Obwona (2001)	Determinants of FDI and their impact on economic growth in Uganda.	A two stage least squares (2SLS) estimation method has been used, for the period of 1981 - 1995.	INFR was not significant in determining the FDI inflows.

2.4.1.5 Gross National Income (GNI) and FDI

The gross national income (GNI) is the total domestic and foreign output claimed by residents of a country, consisting of Gross Domestic Product (GDP)

66

plus factor incomes earned by foreign residents, minus income earned in the domestic economy by non residents (Todaro & Smith, 2011). Economic development and competitiveness of the country depend on country's ability to sustain high growth rates in GNI which pays an increase purchasing power of the citizens of the country that affects FDI flows. In Ghana Antwi, Mills, Mills and Xicang (2013), by using ordinary least square (OLS) regressions for the period of 1980 to 2010 found a negative the relationship between the two variables.

The result of study by Busse (2003) in developing countries for 28 years from 1972 to 1999 confirmed that GNI was a positive significant in determining the FDI inflows.

In Yemen, the result of study by Musibah et al. (2015) for the period 1990 to 2013 revealed that GNI was a positive significant in determining the FDI inflows in the country explaining by political stability.

Table 2.5
Summary of Studies that Examined GNI and FDI

Author(s)	Objective	Methodology	Findings
Musibah et al. (2015)	Sudy the determinants of FDI in Yemen.	The ADF test, the standard and hierarchal regression approaches for the period of 1990 – 2013.	GNI was a positive significant in determining the FDI inflows in the country explaining by political stability.
Antwi et al. (2013)	Study the impact of FDI on economic growth in Ghana.	By using ordinary least square (OLS) regressions for the period of 1980 - 2010.	The relationship between the two variables was negative.

Table 2.5(Continued)

Author(s)	Objective	Methodology	Findings
Busse (2003)	Examine empirically the complex relationship between democracy and FDI.	Panel Data Analysis, for the period of 1972-1999.	GNI was a positive significant in determining the FDI inflows.

2.4.1.6 Balance of Payment (BoP) and FDI

Referring to the previous studies, it is clear that BoP position of the host country is enhanced by economic FDI inflows. In the study of Majeed and Ahmad (2009) analysed the host country characteristics that determine FDI in 72 developing countries. This study used panel data for the period of 1970 to 2008. The results of the study shows that BoP deficit have a negative effects on FDI.

The study of Shahzad and Al-Swidi (2013) used annual data in Pakistan for the period of 1991 to 2011. The results of the study shows that BoP a positive significant determinant of FDI inflows with political stability as moderating effect.

The study of Musibah et al. (2015) used ADF regression approach on the data of the period 1990 to 2013 which indicates a negative relationship of BoP in demonstrating the FDI inflows in the political stable countries.

Table 2.6
Summary of Studies that Examined BoP and FDI

Author(s)	Objective	Methodology	Findings
Musibah et al. (2015)	Study the determinants of FDI inflows to Yemen.	Used ADF and hierarchical regression for the period of 1990 – 2013.	BoP was a negative significant on the FDI inflows in the country explaining by political stability.
Shahzad and Al-Swidi (2013)	Study the determinants of FDI inflows to Pakistan.	Using the authentic annual data for the period of 1991 – 2011.	BoP is a positive significant determinant of FDI inflows.
Majeed and Ahmad (2009)	Analyse the host country characteristics that determine FDI in 72 developing countries.	The study used panel data for the period of 1970 - 2008.	BoP deficit have a negative effects on FDI.

2.4.2 Business Environment and FDI

2.4.2.1 Corruption Control Index (CCI) and FDI

Corruption index is expected to inversely relate to FDI. With the increase in corruption, the country's reputation in the investors' perspective recedes. According to Ghoneim and Ezzat (2014), Arab countries such as Egypt, Sudan, and Yemen indicated corruption leads to inefficient economic outcomes and reduces domestic and foreign investments.

Aburime (2009) found corruption negatively influences the FDI inflows into Nigeria country. Several studies claimed that corruption is a major issue in the economic development (Kelly, 2014 and Tachiwou, 2014). Similarly, Akcay (2001) failed to find evidence of a negative relationship between CCI and FDI. Also, Habib and Zurawicki (2002) supported the negative effect of CCI on FDI by showing that foreign investors steer clear of corrupted countries as it goes against their business and may result in operational issues. Meanwhile, Egger and Winner (2006) examined the impact of CCI on FDI among 59 developed and underdeveloped host countries for the period of 1983 to 1999. The study supported a negative association between CCI and FDI. On the other hand, Mathur and Singh (2013) showed that perception of corruption had a major role in the investor's selection of the host country.

Zhou's (2007) study, demonstrated that the entire corruption negatively effects the potential FDI inflows. Along the same line, Al-Sadig (2009) employed cross-sectional and panel data analysis to examine the impacts of the corruption level on FDI among 117 countries for the period from 1984 to 2004. He revealed that corruption negatively impacted FDI inflows in all the sample countries. This was supported by Kardesler and Yetkiner (2009) who showed that corruption led to the negative impact on FDI inflows in the case of EU countries indicating that investors are unwilling to undertake FDI in countries suffering from high corruption. Also, Kyung (2009) contended that corruption affects FDI and negatively impacts the economy of the nation. In broad terms, corruption imposes additional costs on investors and increases uncertainty surrounding future costs and revenues. Increased costs and higher uncertainty

70

generally lead to less attractive risk-adjusted returns and thus lower investment levels.

Udenze (2014) aimed to examine the effect of CCI on FDI in developing countrie, using OLS regression in the Eviews statistical package between 2005 and 2011. He found a negative correlation between net FDI inflows and corruption.

Samanta (2011) examines the incidence of corruption for several Organization of the Petroleum Exporting Countries (OPEC) countries for the period of 2003 to 2007. It revealed that FDI positively correlation to less corruption.

In 55 nations, study by Mudambi, Navarra and Delios (2013) found the CCI does have significant role on of FDI inflows. However the study by Quazi et al. (2014) in 53 African nations for the period of 1995 to 2012 indicated a negative significant relation of CCI with FDI.

By using Panel data Static OLS and SYS-GMM methods to test the determinants of FDI for 152 nations over the period of 2003 to 2009, Xu and Liu (2013) found that high CCI effect China's FDI as host country.

Study by Castro and Nunes (2013) examine the effect of CCI on FDI over the period of 1998 to 2008 of 73 nations. The result indicates a lower corruption led to higher FDI inflows.

On the other hand, Helmy (2013) used several panel data for 21 MENA countries over the period of 2003 to 2009 found a positive relationship between CCI and FDI. This is consistent with the results of Subasat and Bellos (2011)

in Latin American countries, where they found that high levels of corruption are related with high levels of FDI.

Table 2.7
Summary of Studies that Examined CCI and FDI

Author(s)	Objective	Methodology	Findings
Ghoneim and Ezzat (2014)	Relationship of growth and corruption in 15 Arab countries.	Used panel data, random effects GLS regression, during the period of 1998 -2009.	Result support the negative direct impact of CCI on FDI.
Kelly (2014)	An examination into corruption within African countries.	Theoretical study.	Noted corruption influences FDI.
Quazi et al. (2014)	Impact of corruption on FDI in 53 african nations.	Using the dynamic system GMM modeling framework for the period of 1995 - 2012.	Indicated a negative significant relation with FDI.
Tachiwou (2014)	Study the corruption and economic development in West African Economic and Monetary Union.	Annual survey for the period of 2002 - 2011.	Found CCI influences FDI.
Udenze (2014)	The Effect of corruption on FDI in developing countries.	Using OLS regression in the Eviews statistical package between 2005 – 2011.	A negative correlation between net FDI inflows and corruption.
Castro and Nunes (2013)	Examine the effect of corruption on FDI of 73 nations.	Fixed Effects GLS regression over the period of 1998 – 2008.	Lower corruption led to higher FDI inflows.

Table 2.7 (Continued)

Author(s)	Objective	Methodology	Findings
Helmy (2013)	Study if the corruption inhibit FDI for 21 MENA countries.	Using several panel data over the period of 2003 - 2009.	Positive relation between the CCI and FDI.
Mathur and Singh (2013)	Study the FDI, corruption and democracy developing economies.	Panel data over the time period of 1980 -2000.	That perception of corruption had a major role in the investor's selection of the host country.
Mudambi et al. (2013)	Government regulation, corruption, and FDI in 55 nations.	Across four distinct time periods (1985 – 1986, 1990 – 1991, 1995 –1996, and 1999 – 2000)	Corruption does have significant role on of FDI inflows.
Xu and Liu (2013)	Sudy the host countries'institutional environment affect China's FDI by using data for 152 nations.	By using panel data static OLS and SYS - GMM methods over 2003 – 2009.	Found that high CCI effect China's FDI as host country.
Samanta (2011)	Examines the incidence of corruption and religion for economic performance for OPEC countries.	Panel data, multiple regression analyses, OLS for the period of 2003 – 2007.	FDI positively correlation to less corruption.
Subasat (2011)	Examine the impact of economic freedom on FDI in the context of Latin American countries.	Employs a panel data gravity model. Data cover a period of 24 years (1985 - 2008)	High levels of corruption are related with high levels of FDI.

Table 2.7 (Continued)

Author(s)	Objective	Methodology	Findings
Aburime (2009)	Analysis the impact of corruption on bank profitability in Nigeria.	Using a panel data set comprising 358 observations of 48 unique banks over 1996 - 2006 time period.	Corruption influences the FDI inflows in Nigeria and negatively impacts the country's growth.
Al-Sadig (2009)	Examine the impacts of the corruption level on FDI among 117 countries.	Cross-sectional and panel data analysis, from 1984 – 2004.	Corruption negatively impacted FDI inflows in all the sample countries.
Kardesler and Yetkiner (2009)	The impact of corruption on FDI in EU countries.	Using OLS between 1999 - 2007.	Corruption led to the negative impact on FDI inflows.
Zhou (2007)	The impact of corruption on MNEs' FDI decisions, of 20 OECD source countries and 52 host countries.	Panel (random effect) data for the period from 1996 – 2003.	Corruption effect negatively relates to the FDI inflows.
Egger and Winner (2006)	The impact of corruption control on FDI among 59 developed and underdeveloped host countries.	Panel data for the period of 1983 - 1999.	A negative association between corruption and FDI.
Habib and Zurawicki (2002)	Looked at aggregate investment flows from eighty two countries.	Three years period for the period of 1996 – 1998.	Negative effect of corruption on FDI.

Table 2.7 (Continued)

Author(s)	Objective	Methodology	Findings
Akcay (2001)	Is corruption an obstacle for Foreign Investors in 52 developing countries?	Used cross sectional data.	Failed to find evidence of a relationship between FDI and corruption.

2.4.2.2 Labour Cost (LBC) and FDI

Foreign investors generally attempt to leverage cheaper labour in generation of labour intensive goods (Adresosso-O-Callagham & Wei, 2003). As foreign investors gravitate towards a cheaper labour force, the country having cheap labour will attract more FDI. Developing countries are competing to attract FDIs by opening to external investors, undergoing reform approval processes, opening sectors, and enabling autonomy of capital, cheap and skilled labour and the least official intervention. Based on Mukhtar, Ahmad, Waheed, Ullah, and Inam (2014), a significant FDI inflows determinant is cheap labour. In China, Zou, Liu and Zhuang (2009) underwent reforms of policy and opened up their market 3 decades ago after which the FDI played a significant role in its fast growing economy. The study considered labour cost as independent variable and FDI as the dependent variable. The study made use of co-integration for its analysis of economic factors that bring about FDI attraction in West China. The findings showed that cheap labour is a major determinant of FDI inflows.

Additionally, Ali and Guo's (2005) study highlighted that firms take advantage of emerging foreign opportunities via FDI. As a major emerging market, China

has managed to attract significant FDI inflows, and has become the biggest FDI recipient. This study focused on FDI literature and its potential determinants in China. Twenty-two firms were asked as to what they consider as the most significant motivations for undertaking FDI. They found cheap labour to be the main factor for FDI inflows from the US They reached to the conclusion that cheaper labour has a positive and significant effect on FDI.

Ho, Ahmad and Dahan (2013), Lipsey and Sjoholm (2010) and Hayakawa, Lee and Park (2010) also claimed that cost of doing business is one of the main FDI determinants with the inclusion of labour costs. According to them, foreign firms can leverage cheap labour by investing in developing countries. The positive significant relationship between cheap labour and inward FDI in China was explored by Pereira, Calegario and Reis (2013). They also contended that cheap labour is one of the major attracting factors of FDI inflows. Similarly, Xu and Yeh (2013) reached to the conclusion that cheap labour leveraged by MNCs from Hong Kong, Taiwan, Japan and the US in Guangdong Province in China. However, according to Zhang (2001), labour cost hardly had any impact on US MNEs decisions to undertake investments in China. Contrastingly, low labour costs was the key factor considered by foreign investors in China primarily in manufacturing sector like telecommunication equipment and automobile assembly (Wei & Liu, 2001).

Meanwhile, Lieberthal and Liberthal (2003) revealed that some goods generated by the electronic industry and telecommunications manufacturers industry in the context of Hong Kong and Taiwan are benefits from cheap labour from mainland China. Nevertheless, China's cheap labour may not be sustainable as China now faces competition from rival countries like India,

Laos and Vietnam who all claim cheap labour advantage and have employed various practices for the FDI attraction.

Other studies like Love and Lave-Hidalgo (2000) revealed that wages do not always manage to prevent FDI in sectors and they showed a positive relationship between labour cost and FDI.

This finding is reflected in Wei and Liu's (2001) study that reported the positive influence of attractive investment policy and skilled and cheap Chinese labour on FDI. Majority of research concluded that as labour quality is the top significant variable and positively correlated with FDI. Moreover, illiteracy was selected as the variable of labour quality by Coughlin and Segev (2000) and they found the association between it and FDI as negative and significant. Bevan, Estrin and Institute (2000) empirically showed that FDI inflows are impacted by cheaper labour. Alam and Shah (2013) found the relation between labour cost and was influence on FDI by using a panel of ten OECD member nations over the period of 1985 to 2009.

Gupta and Singh (2014) found that labour costs influenced directly to FDI in BRIC nations from 1991 to 2010. This study found that this factor play an important role in influencing the level of FDI in BRIC Nations. Belloumi (2014) in Tunisia by using the ARDL-OLS regressions, cover the period of 1970 to 2008 and indicated the impact of labour is not significant.

Table 2.8
Summary of Studies that Examined LBC and FDI

Author(s)	Objective	Methodology	Findings
Belloumi (2014)	The dynamic causal relationships between FDI, trade and economic growth in Tunisia.	The ARDL OLS regressions, cover the 1970 - 2008 period.	LBC is not significant with FDI.
Gupta and Singh (2014)	Determinants of FDI in BRIC Nations.	From 1991 – 2010.	LBC influenced FDI.
Mukhtar et al. (2014)	Determinants of FDI flow in developing countries.	Used regression analysis.	A significant FDI inflowsdeterminant is cheap labour.
Ho et al. (2013)	Investigates the major factors that determine the FDI into (BRICS) countries and Malaysia.	Panel data for the period of 1977 -2010.	Claimed that LBC is one of the main FDI determinants with the inclusion of LBC.
Pereira et al. (2013)	Aimed to investigate the factors that determine the investment decision of foreign investors in the Brazilian industry.	Panel data from 2000 - 2005.	The investors seek to operate specific features not available in the original market, such as cheap labour.
Xu and Yeh (2013)	Compares the spatial dynamics and redistribution FDI from Hong Kong, Taiwan, Japan and US.	Panel regression analysis and interviews in 2009.	FDI tends to lower LBC.

Table 2.8(Continued)

Author(s)	Objective	Methodology	Findings
Hayakawa et al. (2010)	The role of home and host country characteristics in FDI in Japan, Korea and Taiwan.	Panel data.	Claimed that LBC is one of the main FDI determinants with the inclusion of LBC.
Lipsey and Sjoholm (2010)	Study the FDI and growth in East Asia.	A regression over the period of 2006 – 2010.	Claimed that LBC is one of the main FDI determinants with the inclusion of LBC.
Zou and Zhuang (2009)	Explore the dynamics of the skill premium in China.	Panel data over the period 1987 –2006.	Cheap labour are major determinants of FDI inflows.
Ali and Guo (2005)	Highlighted the emerging of foreign opportunities via FDI in China.	Panel data from 1987 - 2006.	Cheaper LBC has a positive and significant effect on the FDI.
Adresosso and Wei (2003)	Determinants of EU FDI in China.	A model using OLS regression for the period of 1996 – 1999.	Foreign investors generally attempt to leverage cheaper labour in generation of labour intensive goods.

2.4.2.3 Infrastructure (INFRAS) and FDI

In the infrastructure services sector, the growth of FDI is considered a striking feature which makes it a dominant sector of the global economy (Ahuja, 2015).

The influence of INFRAS can be strong on the process of growth and on the expansion of business in both the developed and developing countries.

79

According to few studies, (Donaubauer, Meyer & Nunnenkamp, 2014; Ivanova & Masarova, 2013; Zafar, 2013; Khadaroo & Seetanah, 2010; Sekkat & Varoudakis, 2007 and Asiedu, 2006), an argument is made in the attraction of FDI, the influence of infrastructure is positive in developing countries. The study of Addison, Khansnobis and Mayrotas (2006) revealed that influence of INFRAS is significant in developed countries but is not proper for developing countries. Bae (2008) however, stated that in developed countries, INFRAS is not a motivator but an indicator to attract FDI in large emerging economies.

Fung and Garcia-Herrero (2011) investigated the INFRAS pertaining to overall good INFRAS implying rising FDI flows in turn. The study is related to INFRAS development which attract respective FDI from countries such as Japan, Korea, US, Hong Kong, and Taiwan to the regions of China. It is found that INFRAS has a positive significant effect on the FDI inflows in China. Globerman and Shapiro (2003) examined how the INFRAS of a country tends to affect the possibility of its share received the FDI inflows. The study found that poor INFRAS of countries showed a positive relationship with the FDI. Countries aspiring development of INFRAS in areas of communication, energy capability, and transportation attracted increased levels of FDI inflows.

In the context of Yemen, AL-Shebami et al. (2013) provided an empirical assessment of the INFRAS factor that play a major role in influencing FDI inflows from 1991 to 2008. They found a positive relationship between INFRAS and FDI inflow. Yemani policy makers' main headache is the poor state of INFRAS. Energy shortages are widespread and take a heavy toll on productivity and competitiveness of the exports and on the quality of life for

the majority of the households. This is a research gap which the present study sought to investigate that is the importance of INFRAS on FDI inflows in the developing country such as Yemen.

Table 2.9
Summary of Studies that Examined INFRAS and FDI

Author(s)	Objective	Methodology	Findings
Donaubauer et al. (2014)	Is the INFRAS helps developing countries attract higher FDI inflows?	Panel estimations with country fixed effects, Regressions, covering the 1990 to 2010 period.	INFRAS appears to have surprisingly strong direct effects on FDI.
AL-Shebami et al. (2013)	Study the determinants of FDI inflows to Yemen.	Autoregressive distributed lag (ARDL) OLS from 1991 - 2008.	Positive relationship between INFRAS and FDI inflow.
Ivanova and Masarova (2013)	Highlight the effects of road infrastructure development on the economic growth and competitiveness of Slovak economy.	Time series and correlation method from 2000 - 2011.	INFRAS can have strong impact on the business expansion and growth process.

Table 2.9 (Continued)

Author(s)	Objective	Methodology	Findings
Zafar (2013)	Examines the impact of economic, social and political factors on inward FDI into Pakistan, India and Bangladesh.	Using a time series data for the period of 1991- 2010.	INFRAS and FDI inflows are positively correlated.
Fung and Garcia-Herrero (2011)	FDI in the major emerging regions: East Asia and the Pacific, Latin America, and Eastern Europe.	Case Studies.	More highways and rail road network, overall good INFRAS implying rising FDI flows in turn.
Khadaroo and Seetanah (2010)	Analyses the role of INFRAS in improving the investment climate for determining the attractiveness of FDI inflows in Mauritius.	Using an ARDL approach, using panel data for the period of 1960 – 2004.	A positive and significant coefficient for INFRAS on FDI.

Table 2.9 (Continued)

Author(s)	Objective	Methodology	Findings
Sekkat and Varoudakis (2007)	Assesses the importance of openness, INFRAS availability, and sound economic and political conditions in increasing developing countries'attractiveness with respect to South Asia, Africa, and the Middle East.	Panel data for year 1990.	A positive and significant coefficient for INFRAS on FDI.
Asiedu (2006)	Study the FDI for 22 countries in Africa.	Panel data Fixed Effects over the period of 1984 – 2000.	INFRAS carries a significant influence attracting FDI to developing countries.
Globerman and Shapiro (2003)	Examined how the INFRAS of US country tends to affect the possibility of its share receiving the FDI inflows.	Panel data during the period of 1981 -1983.	The study found that poor INFRAS of countries showed a positive relationship with the FDI.

83

2.4.3 Moderating Variables (MVs)

2.4.3.1 Political Stability (PS)

In a country, PS is considered an important factor for conducting the business (Durnev, Enikolopov, Petrova & Santarosa, 2015). The dependence of political is on the PS of the government (Hanna, Hammoud & Russo-Converso, 2014; Shahzad & Al-Swidi, 2013; Shahzad et al., 2012; Husain, 2009). Musibah et al. (2015) made an argument that the confidence of investors is enhanced by political stability. In Yemen, there has been continuous political instability, which will adversely influence FDI in the country. If there is political instability in a country, there will be a barrier for FDI and foreign investors and will make no business till they are assured for safer business environment (UNCTAD, 2014; World Bank, 2014; Brada, Kutan & Yigit, 2005).

In fact, the decision of foreign investor will adversely effected by political risks like interference of government, change of regime, and red tape (Hoang & Bui, 2015 and Muchie, Nasrin & Baskaran, 2010). However, the decision is carefully taken by foreign investors and organisations and carefully depending on the political stability indicators such as fighting corruption and transparency of administration (World Bank, 2006).

Meanwhile, Clare and Gang (2010) employed a cross-sectional time series panel comprising of 53 developed and developing nations over the span of five years (1999 to 2003). They noted that political stability positively influenced FDI, but a significant influence was limited to developing countries. This indicated higher concern for political risk in the developing countries compared to their developed counterparts.

84

Additionally, Obwona (2001) showed foreign investors considered the political situation in Uganda because of the fact that a stable political environment is important to their investment confidence. A more extensive study was conducted by Baek and Qian (2011) who examined whether or not political risks hindered FDI in 116 countries from 1984 to 2008. They showed that political risk significantly determines FDI in both categories of nations. A fixed effect model and a dynamic panel model were utilised by Krifa-Shneider and Matei (2010) among 33 developing and transition nations from 1996 to 2008. They reported a negative association between political risk levels and FDI inflow. This negative association between political risk and FDI inflows was supported by Jimenez, Fuente and Duran (2013); Solomon and Ruiz (2012); Kim (2010).

Despite the argument that political risk could minimise FDI inflow, some authors showed that political risks play a key role in the decision of the firm to invest abroad (Wernick, 2014; Bitzenis, 2007 and Block, 2000). For example, Li and Resnick (2003) failed to show a significant impact of political instability on the FDI inflows.

Table 2.10
Summary of Studies that Examined PS and FDI

Author(s)	Objective	Methodology	Findings
Hanna et al. (2014)	Study the FDI in Post-Conflict Countries.	A qualitative methodology, interviews with business and government.	Political instability weaken FDI inflow to the country.

Table 2.10 (Continued)

Author(s)	Objective	Methodology	Findings
Musibah et al. (2015)	Study the FDI in Yemen.	The EViews software and hierarchal regression used the authentic annual data for the period of 1990 – 2013.	Political instability weakens foreign investment flows into the country.
Wernick (2014)	Study the impact of Governing Institutions on FDI flows in 48 African Nations.	Multiple regression over 11 years for the period of 1996 - 2006.	The coefficient is positive and significant between PS and FDI.
Jimenez et al. (2013)	Investigate the existence of an East-West structure in the location of FDI perceived by MNEs in Europe.	By using a Nested Logit Model and a Conditional Logit Model.	Political risk is significantly related to FDI.
Shahzad and Al-Swidi (2013)	Investigation on the effect of Business Environment Factors on the FDI inflows in Pakistan by using Political Stability as Moderating.	The EViews software and hierarchal regression used the authentic annual data for the period of 1991 - 2011.	PS is crucial for the country's domestic and foreign investment.
Shahzad et al. (2012)	Examine the PS and the FDI Inflows in Pakistan.	Used regression analysis.	PS enhances the probability of attracting more FDI inflows into the developing countries.

Table 2.10 (Continued)

Author(s)	Objective	Methodology	Findings
Solomon and Ruiz (2012)	Political risk, macroeconomic uncertainty and the patterns of FDI into African economies.	Panel data, fixed effects.	Negative association between political risk and FDI inflows.
Baek and Qian (2011)	Examined whether or not political risks hindered FDI in 116 countries.	Use a panel data from 1984 – 2008.	Political risk significantly determines FDI.
Clare and Gang (2010)	Examine the political risks of 53 developed and developing nations.	Employed a cross-sectional time series panel, over the span of years of 1999 – 2003.	PS positively influenced FDI, but a significant influence was limited to developing countries.
Krifa-Shneider and Matei (2010)	Political Risk and FDI among 33 developing and transition nations.	Panel Data from 1996 - 2008.	A negative association between political risk levels and FDI inflow.
Kim (2010)	Examine the relationship between FDI and PS.	Pooled OLS Estimation from 1990 – 2002.	Negative association between political risk and FDI inflows.
Bitzenis (2007)	The motivations for and obstacles to FDI in 64 of Bulgaria's largest multinational companies.	A questionnaire survey.	Political risk could minimise FDI inflow.
Li and Resnick (2003)	Democratic institutions and FDI inflows to of 53 developing countries.	From 1982 – 1995.	Failed to show a significant impact of PS on the FDI inflows.

2.4.3.2 Economic Stability (ES)

The study of Molaie and Azad (2013) made comparative analysis of the relationship between ES and FDI in 36 developed, 68 developing and 34 least developed nations. The data was of the period of 1995 to 2010 which resulted in a positive relationship between ES and FDI in developed and developing countries; while in least developed countries the relationship between FDI and ES is a negative significant.

Demirhan and Masca (2008) used cross-sectional econometrics model for the data of 38 developing countries which was for the period of 2000 to 2004. The results of the study show a positive significant relationship between FDI and ES.

ES is considered the basic factor by investors. Basu and Srinivasan (2002) focused on the African countries in the process of decision making of the investors related to the ES of a country which result in increase FDI. The significance of ES is studied by Bloningen (2005) for the ES negatively influence the investment decision. Musibah et al. (2015) suggested that macroeconomic determinant is affect by the ES on FDI inflow.

Table 2.11
Summary of Studies that Examined ES and FDI

Author(s)	Objective	Methodology	Findings
Musibah et al. (2015)	Study the FDI in Yemen.	Used regression analysis for the period of 1990 - 2013.	Contended that ES is a macroeconomics determinant of FDI inflow.

Table 2.11(Continued)

Author(s)	Objective	Methodology	Findings
Molaie and Azad (2013)	Conducted a comparative examination of the relationship between democracy and FDI in 138 countries.	Unit Root Tes, regression and fixed effect pooled effect for the period of 1995 -2010.	A positive and significant relationship between ES and FDI in the former two categories of countries, but a negative and significant one in the last category.
Demirhan and Masca (2008)	Study the determinants of FDI in 38 developing countries.	Across sectional econometric model over the period of 2000 - 2004.	Positive and significant relationship between ES and FDI.
Bloningen (2005)	A Review of the empirical literature on FDI determinants.	A Review.	ES can affect the FDI.
Basu and Srinivasan (2002)	The Effect ES on FDI in African countries.	Case studies, historical data.	ES can increase return on FDI.

2.5 Remarks on Literature Review

This section presents summary of the literature review. It can be concluded that political stability and economic stability plays a significant impact on the FDI inflows either in the context of developed and developing countries inconsistent findings have been observed. In studying the effect of the political instability on the FDI inflows, there have been mixed findings in the literature. Many other studies on the other hand, such as Shahzad et al (2012) and Younis, Lin and Sharahili (2008) established that political stability have significant impact of FDI inflow. Similarly, other studies such as those conducted by Molaie and Azad (2013) and Wei and Liu (2001) found that political stability and economic stability has a positive effect on FDI inflow. Since, investors are very sensitive to the political stability of the targeted countries, it is expected that the political stability of the country can attract FDI inflows. Some researches such as Kim (2010) have contended in their studies on political system welcoming to a foreign investment suggested that property rights and civil rights play a pivotal role for attracting FDI to the host country.

Most of the researchers mentioned that shortage of political stability and economic stability, inhibit foreign investors from more FDI to the host country such as (Benassy, Coupet & Mayer, 2007; Kostevc, Redek & Susjan, 2007; Daniele & Marani 2006; Bevan and Estrin, 2004; Xu & Shenkar, 2002; Clarke, 2001).

Countries that have political stability and economic stability are likely to be more foreign investment catcher (Krifa-Schneider & Matei, 2014; Mukhtar et

90

al., 2014; Nayyra et al., 2014). Some studies (Khrawish, 2014; Thorpe & Leitao, 2014; Louzi & Abadi, 2011; Asiedu, 2002; Pigato, 2001) elucidate that the country economic stability does influence very significantly FDI inflows, and foreign investors avoid countries where political risks and economic instability are high.

There are very few studies have used the political stability as moderator between the macroeconomic variables (GDPGR, Inflation Rate, Balance of Payment, Exchange Rate and Gross National Income) and FDI such as (Musibah et al, 2015 & Shahzad and Al-Swidi, 2013), and there are no studies seem to the researcher used the political stability as moderator between business environment and FDI.

In terms of the economic stability, the literature shows that no remarkable study used this variable as moderator between macroeconomic variables, business environment and FDI especially in developing countries such as Yemen, therefore there is a need to fill this gap in the literature.

In terms of macroeconomic variables (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment) and business environment (Corruption Control Index, Labour Cost and Infrastructure) it can be concluded that the findings of the previous studies are not consistent either in developed or developing countries, such as (Badr and Ayed, 2015; Musibah et al., 2015; Belloumi, 2014; Brixiova et al., 2014; Donaubauer et al., 2014; Ghoneim & Ezzat, 2014; Gupta & Singh, 2014;

Hansen, 2014; Kelly, 2014; Kumar, 2014; Mahmoodi & Mahmoodi, 2014; Mukhtar et al., 2014; Mina, 2014; Offiong & Atsu , 2014; Pan & Song, 2014; Pradhan & Kelkar, 2014; Tachiwou, 2014; Tang et al., 2014; Quazi et al., 2014; Udenze 2014; Zakaria et al., 2014; AL-Shebami et al., 2013; Antwi et al., 2013; Barros et al., 2013; Busse et al., 2013; Cantah et al., 2013; Castro & Nunes, 2013; Helmy, 2013; Ho et al., 2013; Ivanova & Masarova, 2013; Martinez-Zarzoso, 2013; Mathur & Singh, 2013; Mudambi et al., 2013; Shahzad & Al-Swidi, 2013; Pereira et al.,2013; Xu &Yeh, 2013; Xu and Liu, 2013; Zafar , 2013; Anyanwu, 2012; Ngowani ,2012; Okafor, 2012; Ehimare, 2011; Fung & Garcia-Herrero, 2011; Mitze, 2011; Samanta , 2011; Shapiro, 2011; Subasat, 2011; Awan et al., 2010; Hayakawa et al., 2010; Khadaroo & Seetanah, 2010; Krifa-Schneider & Matei, 2010; Lipsey & Sjoholm, 2010; Mohammad & Sidiropoulos, 2010; Mottaleb & Kalirajan, 2010).

The researcher does not find a study which examined macroeconomic variables, business environment wiht the dependent variable FDI in single study, therefore, the present study, thus, attempted to fill up the gap by providing a fresh comprehensive study of the FDI inflows and related issues pertaining to macroeconomic variables and business environment in the growth process of Yemen as a developing country.

It has also been noted that majority of the previous studies concentrated on certain regions and countries including Sub-Saharan Africa (SSA) by Asiedu (2006), the Middle East North African (MENA) countries by Mohamed and Sidiropoulos (2010), India by Kumar and Chadha (2009), China by Cheung

and Qian (2009), Hungary, Poland and the Baltic region by Deichmann, Karidis and Sayek (2003), the Southern African Development Community by Mhlanga, Blalock and Christy (2010) and Brazil, Russia, India, China and South Africa (BRICS) by Vijayakumar, Sridharan and Rao (2010).

Only very few studies cover a wider range of countries and determinants of FDI in the Middle East and North Africa (MENA) region countries such as Yemen (Musibah et al., 2014; AL-Shebami et al., 2013), however, not much attention is paid by the researchers in providing comprehensive analytical studies. Aside from these studies, only a few were dedicated to an extensive range of nations and determinants,therefore, this study investigates the FDI inflows determinants in the context of Yemen – a country still undergoing a low level of FDI inflows.

2.6   Underpinning Theory

The major purpose of this study is to examine the FDI and growth nexus in Yemen. In view of the nature of the variables used in the present study, some major underpinning theories can be cited in determining the analytical framework of the study. The following sub-sections are meant to outline these theories and provide supportive arguments. To recapitulate, the present study has attempted to integrate major thoughts on the Firm Investment Theory to substantiate the analytical framework of the study.

2.6.1 FDI Theories

In economic literature, FDI theories have sought to explain various perspectives on FDI in the contemporary era. One set of FDI theories seeks to
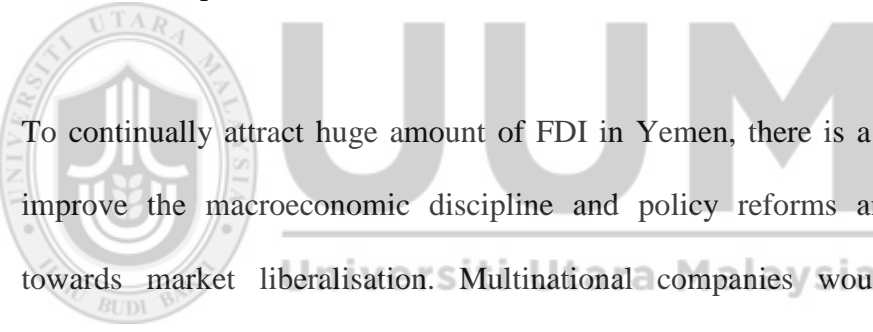
explain why a firm will favour direct investment as a mode of entering a foreign market when two other alternatives solution are available such as exporting and licensing. Exporting involves producing goods at the home and then shipping them to receiving country for sale. Licensing involves granting a foreign entity the right or permission to produce and sell the firm's goods to the recipient countries. Limitations of exporting are the constraints posed by transportation costs and trade barriers.

This is mostly true for those products that have a low value-to-weight ratio and that can be produced in almost any location (e.g., cement, soft drinks, etc). For such products, the attractiveness of exporting decreases relative to either FDI or licensing. For products with high value-to-weight ratio, the transportation costs are normally small, such as electric components, personal computers, software, medical equipment and high tech have little impact on relative attractiveness of exporting and FDI.

In a country like Yemen, corruption and political instability and economic instability affect the control of firms. The FDI generally goes to the countries where it is possible to join the ownership advantages, with the location specific advantages of the host countries through internalization advantages of foreign investments (UNCTAD, 1998).

Yemen is an attractive place for foreign investment because of its big market size due to around 25 million populations. Evidently, several economic theories are attributed to explore the complexities of the FDI in reality. The present

study is, on the whole, specifically confined to a major and most significant FDI theory in focus. With location specific advantages, the multinational firms by establishing a physical presence in other countries. FDI undertaken by many of world's oil companies have invested where oil is located in order to combine their technological and managerial capabilities with these valuable location-specific resources. Another obvious example is valuable and potential human resource, in terms of low cost and highly skilled labour. This theory explicitly implies that the countries endowed with plentiful natural and human resource, will easily attract FDI looking for cheap labour. On this count, there is great potential and scope for the FDI in Yemen because it is a land of cheap labour with under-exploited natural resources.

To continually attract huge amount of FDI in Yemen, there is a dire need to improve the macroeconomic discipline and policy reforms and measures towards market liberalisation. Multinational companies would be more confident and happy to invest in Yemen if there is stability. FDI needs to be based on sound monetary and economic policies, stable political environment, strong institutional framework and availability of skilled and productive labour force, good quality of infrastructure and consistency in policies.

2.6.1.1 Investment Theory of Firm

Investment Theory of Firm consists of a number of economic theories to explain the nature of the firm or company including its existence, behaviour, structure, and relationship to the markets in the process of investment criteria determination and decision making. In economic parlance, any establishment

which produces good and service is called the firm. The theory of the firm is based on the assumption that the goal or objective of the firm is to maximise the profit. A microeconomic concept founded in neoclassical economics states that firms or corporations exist and make decisions in order to maximise profit. The Investment Theory of the firm explain the condition of profit maximisation has already been the subject of a research, such as Barney (1991), Williamson and Masten (1995), Buckley and Michie (1996, 1998) and Christie, Joye and Watts (2003). In the capital budgeting process, as explained in the investment theory of the firm, the business firms on practical consideration are often observed to sacrifice short-term profits for the sake of increasing future or long term profits. This is given by the present value of all expected future profit of the firm. Future profits must be discounted to the present because a Dollar of profit in the future is worth less than a Dollar of profit today.

Formally stated, the value of the firm is given by:

$$PV = 1 + \frac{\pi 1}{(1+r)^1} + \frac{\pi 2}{(1+r)^2} + \cdots + \frac{\pi n}{(1+r)^n}$$

Where PV is the present value of all expected future profit of the firm, $\pi 1$, $\pi 2$,....., π n representing the expected profits in each of the n years considered, and r is the appropriate discount rate used to find the present value of future profits. On country, the more uncertain the stream of expected future profit is, the higher is the discount rate that the firm will use, and, therefore, the smaller is the present value of firms. The following factors are considered by the firm in perceiving the course of future profits, such as:

1) Opportunity cost of money

2) Risk premium

The discount rate (r) depends on the perceived risk of the firm and on the cost of borrowing funds. Political instability and economic instability of the country reduces the firm's perception of future profit and increases the cost of doing business (Feenstra & Hanson, 2004). In this regard, the factors to be considered include: the host country's political and government system, the degree of integration into the world system, regional security; and key macroeconomics indicators. Theory of the firm highlights the importance of risk factors that will reduce the net profit expectations the business ventures.

2.7 Chapter Summary

The crux of the matter in this chapter is that political stability have role to play in the relationship between macroeconomics variables and business environment to attract FDI inflows into Yemen. in effect, the present study is devoted in tracing the impact of the course of political stability or instability time to time in Yemen as major moderating factors among determining variables in attracting the FDI inflows in the country's economy as a crucial factor in persuasion of economic growth and prosperity over the years. As a matter of fact, it follows from the literature surveyed and reviewed above that due consideration of the role of government policy persuasion tuned with political are conspicuously absent in the available studies on the issues of FDI and growth phenomenon in Yemen. In view of the dearth of a comprehensive research study with a focus on political stability, the present study in fact aims to endeavour as a fresh look towards the issues of FDI and economic growth in Yemen.

97

CHAPTER THREE

RESEARCH FRAMEWORK AND METHODOLOGY

3.1 Introduction

This chapter explains the theoretical framework for the hypotheses envisaged under the study. Specifically, this chapter outlines the relevant hypotheses concerning the relationship between FDI inflows in Yemen. It also reports the data collection procedures and the techniques of analysis. Finally, this chapter explains the statistical techniques in fulfil the objectives of the study.

3.2 Research Framework

In light of the literature review and the subsequent theoretical gaps identified in the previous chapter, research frmaework and methodology of the present study has been crafted. In specific terms, the theoretical research framework was designed to illustrate the variables incorporated in this study in tracing their relationship to detect their influences on FDI inflows in Yemen. Figure 3.1 pertains to the research framework model envisaged for the present study.

Independent Variables

Macroeconomics Determinants

- GDP Growth Rate

- Degree of Openness

- Exchange Rate

- Inflation Rate

- Gross National Income

- Balance of Payment

Dependent Variable

Foreign Direct

Investment Inflows

Business Environment

- Corruption Control Index

- Labour Cost

- Infrastructure

- Political Stability

- Economic Stability

Moderating Variables
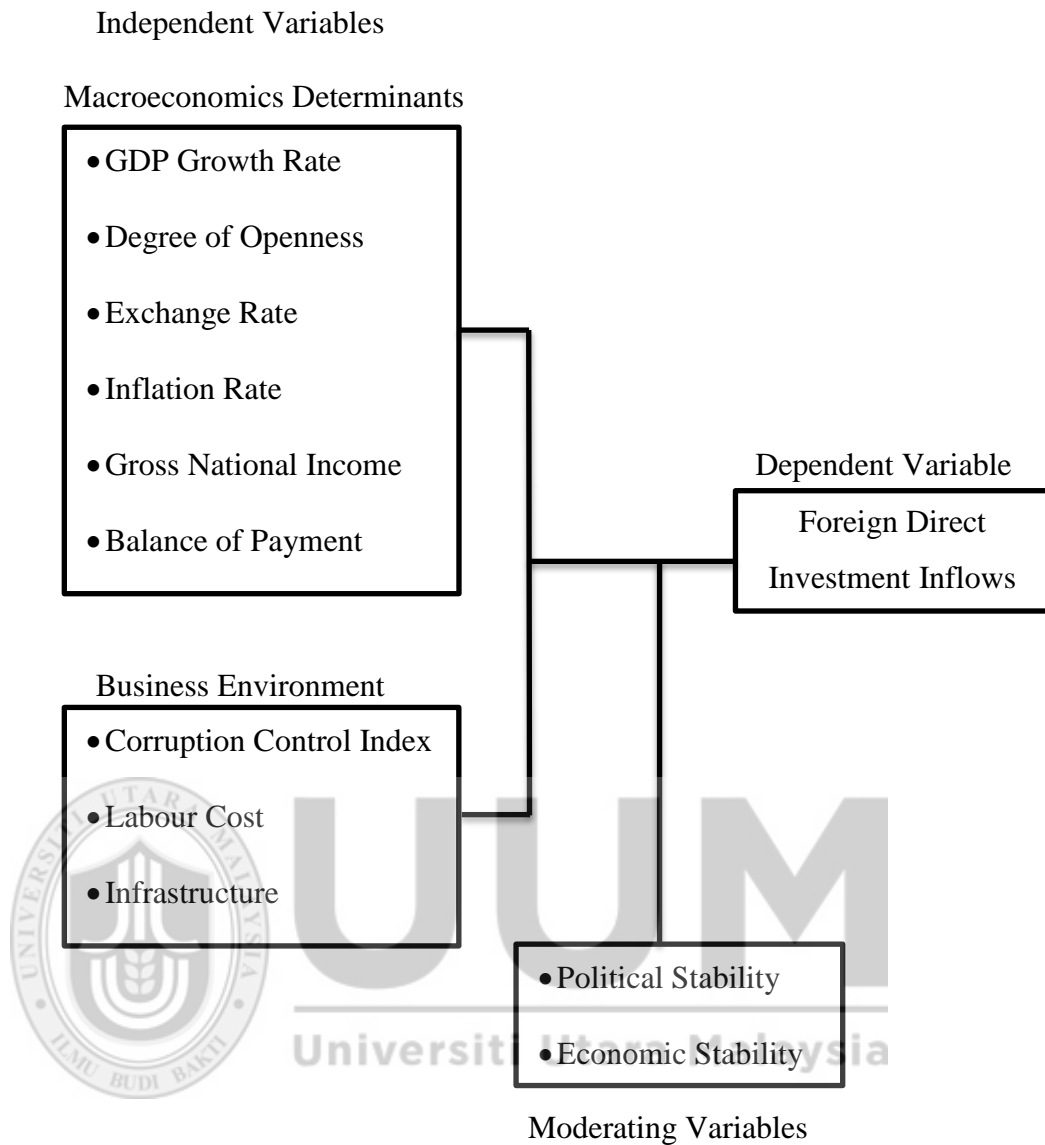
Figure 3.1
Research Framework

On the basis of the research framework model developed, and the research

design chosen, the present study method of investigation caters to specific

hypothesis to check the empirical relation between the macroeconomics

determinants (GDPGR, DoP, EXR, INFR, GNI, BoP), business environment

(CCI, LBC, INFRAS) as independent variables with (FDI inflows) as

99

independent variable, also will check the effect of (Politcal Stability and Economic Stability) as moderating variables between independent variables and dependent variable.

3.3 Hypotheses Development

3.3.1 Macroeconomics Determinants (IVs) and FDI

3.3.1.1 Gross Domestic Product Growth Rate (GDPGR) and FDI

Several studies have been dedicated to the relationship between GDPGR and FDI in the context of developing nations. Accordingly, the findings of such studies (e.g. Mahmoodi & Mahmoodi, 2014; Mina, 2014; Mukhtar et al., 2014; Pradhan & Kelkar, 2014; Antwi et al., 2013; Barros et al., 2013; Okafor, 2012 and Martinez-Zarzoso & Nowak-Lehmann, 2004) revealed that GDPGR significantly impacts FDI among developing nations. In addition, Iqbal, Azim, Akram and Farooq (2013) demonstrated a positive impact of GDPGR on FDI.

On the other hand, studies of the same caliber by Carkovic and Levine (2005) employed new econometric methods but failed to reveal evidence of a positive association between GDPGR and FDI, and Calderan, Loayza, Servan and Bank (2004) reported a relationship but in the opposite direction. They showed that GDPGR results in increased FDI. In the context of Eastern European economies, the rate of GDP growth was shown to adversely affect FDI (Mencinger, 2003). Another relationship comes from Choe (2003) who showed a bidirectional correlation between the two variables and highlighted that the significant effects occurred from GDPGR towards FDI. On the other hand, Hussein (2009) demonstrated a weak correlation between the two and Al-

Shebami et al. (2013) reported that GDPGR in Yemen is insignificant in the short-run, but Musibah et al. (2015) revealed that GDPGR negatively impacts FDI in the developing economies.

According to firm investment theory, if the economic growth of the country is low, the investors will have low confidence to invest in a country because of the high risk of investment, which in turn leads to high cost of doing business and low expected profit for the projects which will encourage foreign capital to escape from the country. Therefore, base on the above discussion, the researcher proposes the following first hypothesis:

H1: GDP growth rate has a significant effect on the FDI inflows in Yemen.

3.3.1.2 Degree of Openness (DoP) and FDI

DoP has shown a significant positive determinants of FDI inflows in the context of Ethiopia and Singapore by researchers (e.g. Asiedu, 2006 and Haile & Assefa, 2006). Similarly, the study by Badr and Ayed (2015) concluded that the DoP was the highest FDI determinants in Egypt, Tunisia, Morocco and Algeria. Some other studies contended that the DoP positively impacts the FDI inflows in developing nations (e.g. Guesmi & Teulon, 2014; Offiong & Atsu, 2014; Zakaria et al., 2014; Cantah et al., 2013; Shapiro, 2011; Seim, 2009; Baharom et al., 2008; Chakrabarti & Scholnick, 2002 and Morisset, 2000).

The host country's openness is deemed as a positive factor in the viewpoint of FDI and its openness to trade indicates an efficient and attractive environment to foreign firms (Zakaria et al., 2014; Piteli, 2010; Campos & Kinoshita, 2002). However, other studies showed openness to trade to be a significant FDI

101

determinant only for specific sectors and FDI categories (Lim, 2001). Also, a recent study by Torrisi and Corbett (2014) showed an insignificant relationship between the two variables.

Studies also showed that DoP significantly and positively relates to FDI inflows in the development economy (e.g. Al-Shebami et al., 2013; and Awan, Zaman & Khan, 2010). According to firm investment theory, multinational firms engaged in export-oriented investments may prefer to invest in a more open economy since increased imperfections that accompany trade protection generally imply higher transaction costs associated with exporting, then the expectation profit will be low which will encourage foreign capital to escape from the country. Thus, this study proposes the following hypothesis;

H2: Degree of openness has a significant effect on the FDI inflows in Yemen.

3.3.1.3 Exchange Rate (EXR) and FDI

Some studies (Blonigen & Ma, 2011) confirmed a negative and significant relationship between EXR and FDI while others (Musibah et al., 2015; Kyereboah & Osei, 2008) reported an insignificant effect.

In the context of Pakistan, EXR significantly and positively affected FDI inflow (Javed et al., 2012 and Rehman, Ilyas, Mobeen Alam & Akram, 2011). In another study, Bleaney and Greenaway (2001) found evidence that distortions in EXR in the host country failed to negatively impact FDI inflows.

In the context of Yemen, EXR was found to be a negative short-run determinant of FDI (Al-Shebami et al., 2013). Based on the above discussion, and according to firm investment theory, anticipated exchange rate moves may be reflected in a higher cost of financing the investment project, since interest rate parity conditions equalize risk-adjusted expected rates of returns across countries , then the expectation profit will be low which will encourage foreign capital to escape from the country. the following hypothesis is proposed:

H3: Exchange rate has a significant effect on the FDI inflows in Yemen.

3.3.1.4 Inflation Rate (INFR) and FDI

INFR is commonly utilised for the measurement of the price stability level and economic stabilisation. It has a negative and significant relationship with FDI inflows in the context of Africa as evidenced by Naude and Krugell (2007) and in MENA countries as evidenced by Mohamed and Sidiropoulos (2010). Similarly, according to Sayek (1999) and Zakaria et al. (2014), there is a significant and negative relationship between INFR and FDI. Contrastingly, a positive and significant relationship between INFR and FDI inflows was evidenced by Awan et al. (2010) and Zaman, Hashim and Awan (2006) while no significant relationship was found between the two variables by several studies (e.g. Musibah et al., 2015; Hela, 2014; Shahzad & Al-Swidi, 2013; Anyanwu, 2012; Parajuli & Kennedy, 2010; Vijayakumar et al., 2010; Wafure & Nurudeen, 2010; Onyeiwu, 2003 and Obwona, 2001). Based on the firm investment theory, greater inflation rates increase uncertainty which means high investment costs, thus the expected returns will be low

103

and discourage investment. Hence, the fourth hypothesis of the present study is proposed as follows:

H4: *Inflation rate has a significant effect on the FDI inflows in Yemen.*

3.3.1.5 Gross National Income (GNI) and FDI

The World Bank report (2014) and McGowan and Moeller (2009) indicates that GNI reflects that economic environment and the countries potential is significantly related to economic development measures.

Prior studies reported mixed results concerning the two variables relationship. Busse (2003) revealed a positive significant relationship between GNI and FDI, Busse and Hefeker (2007) reported this significant positive relationship only in high income countries and Antwi et al. (2013) reported a negative relationship between the two. Meanwhile, no significant relationship was found between GNI in Cuba and FDI, in China by Villaverde (2010) and in Yemen by Musibah et al. (2015).

Although mixed results were revealed by prior studies regarding the relationship between GNI and FDI, the former is probably the top most factor in explaining the latter (Chakrabarti, 2001). Gross national income plays an important role because it indicates how well a country's population demand for the productivity. According to firm investment theory, if the income of the country is low, the investors will have low confidence to invest in a country because of the high risk of investment, which in turn leads to high cost of doing business and low expected profit will encourage foreign capital to escape from

104

the country. It is therefore worthwhile to examine the following proposed hypothesis:

H5: Gross national income has a significant effect on the FDI inflows in Yemen.

3.3.1.6 Balance of Payment (BoP) and FDI

Literature reveals that economic FDI inflows have a tendency to enhance the host country's BoP. Majeed and Ahmad (2009) analysed the host country characteristics that determine FDI in 72 developing countries. This study used panel data for the period of 1970 to 2008. The results of the study shows that BoP deficit have a negative effects on FDI. Musibah et al. (2015) also found a negative relationship between BoP and FDI in Yemen. Other study such as Shahzad and Al-Swidi (2013) used annual data in Pakistan for the period of 1991 to 2011. The result of the study shows that BoP a positive significant determinant of FDI inflows.

Based on this discussion, and according to the firm investment theory a deficit in BoP leads to lower aggregate demand and therefore slower growth, also, the expected profit from the establishment of investment projects will be low ,this can lead to capital flight and loss of investor confidence, the following hypothesis is proposed:

H6: Balance of payment has a significant effect on the FDI inflows in Yemen.

3.3.2 Business Environment (IVs) and FDI

3.3.2.1 Corruption Control Index (CCI) and FDI

A review of prior literature examining the relationship between CCI and FDI inflows shows that the studies reported mixed findings. No evidence of a relationship between CCI and FDI was reported by Akcay (2001) and Wheeler and Henisz (2000).

On the other hand, a negative impact of CCI on FDI was revealed by Habib and Zurawicki (2002), which was explained by the premise that foreign investors generally steer clear of investing in corrupted business environment as it lacks security and may lead to operational defects. Similarly, corruption perception played a major role in investment decisions (Mathur & Singh, 2013) and overall corruption effect significantly and negatively impacts FDI inflows into the country (Zhou, 2007). Bahmani and Nasir (2002) conducted an analysis of a cross-sectional data comprising 65 countries and showed that countries characterised as having higher levels of corruption experienced lower FDI inflows.

In similar studies, Portugal, Manuel, Helder Costa Carreira, Dan and Fernando (2013), Egger and Winner (2006), Voyer and Beamish (2004), Lambsdorff (2003) and Wei (2000) highlighted a negative corruption-FDI inflows relationship. Corruption control is generally related to enhanced country's institutions.

Based on the above and according to the firm investment theory corruption has negative effects on the levels of both foreign and domestic investment. Investors will ultimately avoid environments where corruption is rampant because it increases the cost of doing business and undermines the rule of law. Corruption is also often associated with a high degree of uncertainty, something that always drives investors away and vice versa, it is logical to propose the following hypothesis:

H7: *Corruption control index has a significant effect on the FDI in Yemen*.

3.3.2.2 Labour Cost (LBC) and FDI

In order to maintain low production costs, foreign investors often take advantage of cheap labour (Mukhtar et al., 2014; Pereira et al., 2013; Xu & Yeh, 2013; Andresosso-O-Callagham & Wei, 2003 and Adresosso & Wei 2003). In China, LBC was found to have a positive and significant relationship with FDI inflows (Lan & Yen, 2009). Along a similar line, Ali and Guo (2005) stated that firms take benefits from low LBC in China and that such costs has a positive and significant impact on FDI. In fact, LBC factor is one of the top FDI determinants and is significantly related to FDI (Gupta & Singh, 2014; Ho et al., 2013; Hayakawa et al., 2010; Lipsey & Sjoholm, 2010; Zou & Zhuang, 2009 and Zhang, 2001).

However, although majority of studies such as Love and Lave-Hidalgo (2000) found a positive relationship between LBC and FDI inflows. Belloumi (2014) reported no significant relationship between them (either negative or positive). On the basis of the above discussion, and according to firm investment theory,

a higher cost of labour means increase the cost of doing business, then the expectation profit will be low which will encourage foreign capital to escape fromthe researcher proposes the following hypothesis;

H8: *Labour cost has a significant effect on the FDI inflows in Yemen.*

3.3.2.3 Infrastructure (INFRAS) and FDI

INFRAS has a major role in obtaining FDI inflows as evidenced in Cheng and Kwan (2000) study. Recent studies also support this finding – for example, Khadaroo and Seetanah (2010) conducted their study using 20 nations from Africa for the sample study and revealed that INFRAS has a key role in realising FDI inflows. Also, Kok and Erosoy (2009) employed a cross sectional data of 24 developing countries and concluded that INFRAS significantly and positively affects FDI. This finding is supported by Bae (2008) in his study of 36 emerging economies, Li and Park (2006) in their study in the context of China and Asiedu (2006) in the context of Sub-Saharan Africa (SSA). In other words, the significant effect of INFRAS on FDI has been extensively proven (Quazi, 2005).

In Yemen, an empirical assessment of INFRAS showed its major role in influencing FDI from 1991 to 2008 (Al-Shebami et al., 2013), where a positive relation was found between the two variables.

Although literature confirms the significant impact of INFRAS on FDI inflows, this relationship still needs to be examined in the context of developing nations, like Yemen, as studies of this caliber is still few and far between.

Nevertheless, as it is clear that INFRAS is significant for FDI inflows in developing nations as evidenced by the findings (Mukhtar, 2014; Onyeiwu, 2003).

According to firm investment theory, good infrastructure lead to reducing the costs of production and enhancing competition in markets; expanding trade, and encouraging economies of scale and the division of labour; producing a more efficient allocation of activity across regions; fostering the diffusion of new technologies; encouraging better organisational practices in business and beyond; and providing access to new raw material and other resources, thereby reducing the risk and costs of the business and thus stimulate foreign capital to come to the country. The corollary, of course, is that poor or inadequate infrastructure can constrain a country's economic development, by encouraging congestion, restricting trade and innovation, increasing transport costs, undermining the reliability of power supplies and telecommunications, polluting water, and leaving workers unhealthy and poorly educated, which increases the risk and thus increase the cost of business, which discourages investors and avoid investing in this country.

Thus, following hypothesis is proposed:

H9: *Infrastructure has a significant effect on the FDI inflows in Yemen.*

3.3.3 Moderating Variables (MVs)
3.3.3.1 Political Stability (PS)

In order to create an environment that is conducive for business and to maintain a macroeconomics balance, political stability is essential. Political risks greatly depend on political stability, and as such, political stability is

significant in attracting FDI. This contention comes from several studies including Musibah et al. (2015), Shahzad et al. (2012), Kirfa-Schneider and Matei (2010), Clare and Gang (2010), Husain (2009), Busse and Hefeker (2005), Busse (2003), Janeba (2002), Stasavage (2002), Harms and Ursprung (2002), Obwana (2001), Smarzynska and Wei (2000) and Henisz (2000), Specifically, Musibah et al. (2015) revealed that PS enhances the potential to attract FDI inflows, particularly in developing countries.

In this regard, Yemen is characterised by a country that has been facing a continuous onslaught to the stability of its political system. This explains why the foreign and domestic investment in the country is limited. An unstable political system drives foreign investors to look for other places that is favourable for investment (World Bank, 2011; UNCTAD, 2010; and Brada et al., 2005).

Baek and Qian (2011) investigated if PS prevented FDI in 116 nations from the years 1984 to 2008. They revealed that PS is a significant determinant of FDI. In a similar study, they revealed a positive relationship between levels of PS and FDI inflow. The same positive relationship was evidenced by Solomon and Ruiz (2012), Kim (2010) and Asiedu (2006).

Other studies revealed that such risks have a major role to play in the firm's decision to invest in foreign markets (Wernick, 2014; Bitzenis, 2007 and Block, 2000). Specifically, Li and Resnick (2003) reported that PS has no significant impact on FDI inflows. Javed et al. (2012) and Asiedu (2002) on the

other hand found that PS are not as significant as economic variables when it comes to determining FDI inflows. The same holds true for the findings in developed countries as evidenced by Jimenez et al. (2013) and Bitzenis et al. (2009). Meanwhile, in a study by Musibah et al. (2015) and Shahzad and Al-Swidi (2013) macroeconomics determinants influence on FDI by PS in developing countries.

On the basis of the above discussion, and based on firm investment theory, the understanding risk partly as probability and partly as impact provides insight into political risk. For a business, the implication for political risk is that there is a measure of likelihood that political events may complicate its pursuit of earnings through direct impacts (such as taxes or fees) or indirect impacts (such as opportunity cost forgone). As a result, political risk is similar to an expected value such that the likelihood of a political event occurring may reduce the desirability of that investment by reducing its anticipated returns. This study uses PS as moderating between macroeconomics determinants (GDPGR, DoP, EXR, INFR, GNI, BoP), business environment (CCI, LBC, INFRAS) and dependent variable (FDI). This moderating variable affects the strength of the relationship between the independent and dependent variable (Frazier, Tix & Barron, 2004; Baron & Kenny, 1986). the researcher proposes the following hypothesis:

H10: Political stability has a significant effect on the FDI inflows in Yemen.

H11: Political stability moderates the relationship between GDP growth rate and the FDI inflows in Yemen.

H12:Political stability moderates the relationship between Degree of Openness and the FDI inflows in Yemen.

H13: Political stability moderates the relationship between Exchange Rate and the FDI inflows in Yemen.

H14: Political stability moderates the relationship between Inflation Rate and the FDI inflows in Yemen.

H15:Political stability moderates the relationship between Gross National Income and the FDI inflows in Yemen.

H16:Political stability moderates the relationship between Balance of Payment and the FDI inflows in Yemen.

H17:Political stability moderates the relationship between Corruption Control Index and the FDI inflows in Yemen

H18:Political stability moderates the relationship between Labour Cost and the FDI inflows in Yemen

H19: Political stability moderates the relationship between Infrastructure and the FDI inflows in Yemen.

3.3.3.2 Economic Stability (ES)

Another essential factor to be considered, when it comes to FDI, is its relationship with ES (World Bank, 2013). Some authors such as Sadni-Jallab et al. (2008) and Chan and Gemayel (2003) confirmed that ES is critical in order to favour positive impact of FDI.

Molaie and Azad (2013) found a positive and significant relationship between ES and FDI in the developed and developing nations, but a negative and

significant one in the least develops nations. The same result was found also by Demirhan and Masca (2008) in developing countries.

In the context of North African countries, the decisive aspect of the ES for investors was emphasised in an environment which can minimise risk and maximise return on investment in a study by Basu and Srinivasan (2002). Other studies (Bloningen, 2005) evidenced the specific significance of ES. Moreover, Musibah et al. (2015) suggested examine the moderating effect of the ES between macroeconomic determinants and business environment with FDI inflows.

On the basis of the above discussion, and based on firm investment theory, lack of stability economic is effect on increases the costs of setting up projects,and reduce the expected value may reduce the desirability of that investment by reducing its anticipated returns. According to Frazier et al. (2004) and Baron and Kenny (1986) the moderating variable affects the direction or strength of the relation between an independent or predictor variable and a dependent variable, this study uses ES as moderator between macroeconomics determinants (GDPGR, DoP, EXR, INFR, GNI, BoP), business environment (CCI, LBC, INFRAS) and FDI as dependent variable. thus, the researcher proposes the following hypothesis:

H20: Economic stability has a significant effect on the FDI inflows in Yemen.

H21: Economic stability moderates the relationship between GDP growth rate and the FDI inflows in Yemen.

H22: Economic stability moderates the relationship between Degree of Openness and the FDI inflows in Yemen.

H23: Economic stability moderates the relationship between Exchange Rate and the FDI inflows in Yemen.

H24: Economic stability moderates the relationship between Inflation rate and the FDI inflows in Yemen.

H25: Economic stability moderates the relationship between Gross National Income and the FDI inflows in Yemen.

H26: Economic stability moderates the relationship between Balance of Payment and the FDI inflows in Yemen.

H27: Economic stability moderates the relationship between Corruption control index and the FDI inflows in Yemen.

H28: Economic stability moderates the relationship between Labour Cost and the FDI inflows in Yemen.

H29: Economic stability moderates the relationship between Infrastructure and the FDI inflows in Yemen.

The following model test the hypotheses (H1-H29) in the present study.

$FDIt = a_0t + a_1GDPGRt + a_2DoPt + a_3EXRt + a_4INFRt + a_5GNIt + a_6BoPt + a_7CCIt + a_8LBCt + a_9INFRASt + a_{10}PSt + a_{11}ESt + a_{12}GDPGRt^* PSt + a_{13}DoPt^* PSt + a_{14}EXRt^* PSt + a_{15}INFRt ^*PSt + a_{16}GNIt ^*PSt + a_{17}BoPt ^*PSt + a_{18}CCIt ^*PSt + a_{19}LBCt ^*PSt + a_{20}INFRASt ^*PSt + a_{21}GDPGRt ^*ESt + a_{22}DoPt ^*ESt + a_{23}EXRt ^*ESt + a_{24}INFRt ^*ESt + a_{25}GNIt ^*ESt + _{26}BoPt ^*ESt + a_{27}CCIt ^*ESt + a_{28}LBCt ^*ESt + a_{29}INFRASt ^*ESt + et$.

Where:

FDI= Foreign Direct Investment inflows in year t.

GDPGR= Gross Domestic Production Growth Rate in year t.

DoP= Openness measured as exports plus imports as percentage of GDP in year t. DoP= (Imports + Exports) / GDP, in year t.

EXR= Real Exchange Rate in year t.

INFR= Inflation Rate in year t.

GNI= Total amount of output produced by the domestic and foreign residents of a country, in year t.

BoP= Balance of Payment measured as current account balance in year t.

CCI= Corruption Control Index ranking in year t.

LBC= Labour Cost set by the government in year t.

INFRAS= Infrastructure rank using in year t.

PS= Political Stability index in year t.

ES= Economic Stability measured as total reserves on total import. ES= total reserves / total import, in year t.

a_0 = Model intercept.

e = error term.

3.4 Data Collection Procedures

This study is based on the secondary data. The relevant data for the analysis of FDI determinants and important issues covered by the study were taken from several authentic sources. Data that will be used is obtained from the annual data for the years 1985 to 2014, with the major sources being the Central Bank of Yemen (CBY), UNCTAD reports, World Bank reports, and Economic Surveys of Yemen.

Table 3.1
The Sources of Data Collection for each Variable

Variables	Description
Foreign Direct Investment Inflows (FDI)	FDI inflows data in Yemen during the period of 1985 - 2014. Data collected from CBY, UNCTAD and World Bank Reports.
Gross Domestic Production Growth Rate (GDPGR)	GDPGR growth rate data collected from UNCTAD Reports.
Degree of Openness (DoP)	Exports, Imports and GDP (Gross Domestic Product) data collected from the UNCTAD Report and IMF Reports. The DoP calculated by using the following formula: DoP = (Imports + Exports) / GDP.
Exchange Rate (EXR)	Yemen Exchange Rate against USD annual, data collected from the UNCTAD reports for the period of 1985 - 2014.
Inflation Rate (INFR)	Data collected from CBY.
Gross National Income (GNI)	Data collected from UNCTAD reports.
Balance of Payment (BoP)	Data collected from World Bank reports.
Corruption Control Index (CCI)	Data collected from World Bank Reports and Indicator Corruption Control Index.
Labour Cost (LBC)	Data collected from the labour department and economic surveys of Yemen.
Infrastructure (INFRAS)	Data collected from UNCTAD reports.
Political Stability (PS)	Data collected from World Bank reports and economic surveys of Yemen.
Economic Stability (ES)	Data collected from UNCTAD reports.

3.5 Operational Definitions

The variables used in the present study are conceptualised as follows (refer to Table 3.2). This section will describe the operational defenition and also how to measure the variables. Table 3.2 summarises the operation definition for the variables used in this study.

Table 3.2
Measurement of the Variables

Variables	Operational Definition	Authors/Agency
Foreign Direct Investment inflows (FDI)	Refer to quantum of foreign investment inflows into the country.	UNCTAD (2014)
Gross Domestic Production Growth Rate (GDPGR)	Describe as the changes in the gross domestic between two years.	UNCTAD (2014)
Degree of Openness (DoP)	Measured by (Exports+Imports)/ GDP.	UNCTAD (2014)
Exchange Rate (EXR)	Refer to the price of one currency expressed in terms of another currency. (USD/YR).	UNCTAD (2014) Serge (2006) and Chinn, (2006)
Inflation Rate (INFR)	Measured by the average of percentage increased in the price of goods and services comparing between two years.	UNCTAD (2014)
Gross National Income (GNI)	GNI is the total value added by the local producers and net income from other countries.	UNCTAD (2014)
Balance of Payment (BoP)	The difference between a nation's total payments to foreign countries, including movements of capital and gold, investments, tourist spending, etc., and its total receipts from foreign countries.	UNCTAD (2014)

Table 3.2 (Continued)

Variables	Operational Definition	Authors/Agency
Corruption Control Index (CCI)	The World Bank created a corruption control index that measures the perception of the level at which public power is used for personal profit, including both large and small scale cases. This measure ranges from -2.5 to 2.5, with greater numbers indicating a lower level of corruption.	World Bank (2014)
Labour Cost (LBC)	Measured by the minimum salary decided by the government.	UNCTAD (2014)
Infrastructure (INFRAS)	Measured by the billing collection rates and country overall infrastructure, electricity consumption, excessive losses from the network in power, gas, roads, telecommunication, ports etc.	UNCTAD (2014)
Political Stability (PS)	Measured by the discernment of the likelihood that the government will be destabilised or overthrown by unlawful or violent means, armed conflict, violent demonstrations, social unrest, international tensions and terrorist threat, orderly transfers, government stability, internal conflict, external conflict, ethnic tensions as well as domestic violence and terrorism in the country and ranges between (-2.5 weak; 2.5 strong).	UNCTAD (2014) and World Bank (2014)
Economic Stability (ES)	Where total reserve includes gold and imports includes import of goods and services with respect to current USD. ES= total reserves / total import.	Molaie and Azad (2013)

3.6 Data Analysis

The data for the present study were analysed using STATA software. However, the data were statistically analysed through the following process, in the first step; to check the Stationary Analysis, The second step; data were summarised and initially analysed through descriptive statistics. The thired step continued to check the major assumptions have to be confirmed before employing the regression analysis namely outlier, normality, linearity, multicollinearity, heteroscedasticity, and autocorrelation. Finally, the hypotheses were tested through multiple regression analysis and heretical regression.

3.6.1 Stationary Analysis of Data

Data was prepared to determine the stationary or non-stationary data analysis and to ensure the assumptions of the stationary analysis. This study adopts time series data for the period 1985 to 2014. The initial step involved the determination of the variables integrations with the help of Augmented Dickey Fuller (ADF) test. It is important to note that time series data has properties of non-stationary levels. Therefore, to avoid spurious regression, an investigation into the time series data properties will be conducted to determine their nature (stationary or non-stationary) through the Augmented Dickey Fuller (ADF) test.

3.6.1.1 Augmented Dickey Fuller (ADF)

Preliminary steps had to be followed in analysing time series data. The form in which the series is usable for any subsequent estimation was determined. For instance, non-stationary data may impact regression issues, or time series data

trend may reveal growth or decline over time – these must be resolved before applying any estimation procedure. Hence, the ADF unit root tests are employed to test the stationary feature of the series and the non-stationary data's integration order (Said & Dickey, 1984).

3.6.2 Preparing Data for Multiple Regression Analysis

Six major assumptions have to be confirmed before employing the regression analysis namely outlier, normality, linearity, multicollinearity, heteroscedasticity and autocorrelation (Hair, Anderson, Tatham & Black, 2010; Coakes & Steed, 2003). Specifically, Hair et al. (2010) stated that the size of the sample directly affects the multiple regressions strength and to guarantee reliable outcome, researchers proposed more than 20 observations for every independent variable (Hair et al., 2010). In this analysis, the coefficient of determination R^2 refers to the model goodness of measure indicating the variance of the dependent variable accounted for by the independent variables (Hair et al., 2010).

3.6.2.1 Outliers

Outliers are observations which have unique characteristics that make them different from other observations (Hair et al., 2010). There are few methods to check outliers. Standardised residual, a widely used method to detect for any outliers. Observations with a high standardised residual which have the potential to be influential outliers are identified and removed (Hair et al., 2010). Winsorizing or eliminating, can used to be standard ways of treating outliers. The desire for robust statistics and for measures insensitive to outliers

was satisfied by dropping outliers or by modifying their values (Nilsen, 2105, Ghosh & Vogt, 2012).

3.6.2.2 Normality

Normality is defined as the distribution of normal error. With the help of histogram, the normality of every variable is tested. In multiple regressions, there is no need for normality to estimate the regression but the need of normality arises in testing the validity of hypothesis. For using the parametric test, the data is found to ensure the requirement of normality assumptions. Using different graphs on the basis of predicted residuals, normality is properly tested. Standardised normal probability plot, quartile of a variable versus the quartile of a normal distribution plot and kernel density estimate plot will be included in these graphs.

Moreover, according to the study of Pallant (2001), with the help of testing the skewness and kurtosis of the variable, normality assessment cannot be carried out. The statistical test like Kolmogorov-Smirnov test and Shapiro-Wilks tests are considered among the normality tests. There will be normality if linear relationship is found in both dependent and independent variables (Hair et al., 2010).

3.6.2.3 Linearity

Many researchers have a consensus regarding this assumption of linearity of model i.e. both parameters and variables as it directly affects the biasedness of output in the study (Keith, 2006). Linearity can be defined as dependent

121

variable (DV) is linearly associated with included independent or explanatory variables (IVs) (Darlington, 1968). This linear relationship among dependent and included independent variables can be best explained by using multiple regression function (Osborne & Waters, 2002). There is an evident probability of non-linear relationship among dependent and independent variables in all social sciences, hence it is imperative to do an investigation of linearity of the model before going towards estimation of regression model (Osborne & Waters, 2002). If we cannot have linearity in our regression model then estimated betas (usually known as regression coefficients) are usually biased, inconsistent and inefficient and diagnostic testing remain invalid in such case (Keith, 2006).

3.6.2.4 Multicollinearity

When there are no colinearity between two independent variables it is considered an important assumption underlying multiple regression analysis; this is regarded as multicolinearity (Cheng, Hossain & Law, 2001). The estimated regressions coefficient will become unstable and unreliable if there is high multicollinearity. In situation like this, it will suddenly changed if a minor change is made in the model (Hamilton, 2003). The results of the model might be influence by this issue, thus, it will be considered more difficult to make accurate estimation of the coefficient of variables in the model (Cheng et al., 2001). The easiest way for multicolinearity checking is the examination of correlation matrix for the independent variables. A rule of thumb is created that the values of 0.8 will be in the range of acceptance (Bryman & Cramer, 1990). If the correlation is either 0.9 or above, there will be a serious issue (Hair,

122

Black, Babin, Anderson & Tatham, 2010; Pallant, 2001). VIF is also a notes procedure where with the help of VIF for independent variables, the variance of coefficients and standard error is means that how it increases with including another variable (Hamilton, 2003). According to the rule of thumb, there will be high correlation of the variable if VIF is found more than 10 (Hair et al., 2010; Ho, 2006; Gujarati, 2003). According to Hair et al. (2010), Wooldridge (2003) and Cheng et al. (2001) the issue will be solved with dropping of one variable.

3.6.2.5 Heteroscedasticity

Heteroscedasticity means that the variance of a variable must be constant, showing similar amounts of difference across the range of values for the independent variable (Ashley, 2012, Hair. et al, 2010). Heteroscedasticity is a problem if the variance of the residuals is non-constant, indicating that residuals should be randomly dispersed throughout the predicted value of the dependent variable. In other words, if the model is well-fitted, there should be no pattern to the residuals plotted against the fitted values. The hypotheses will reject if the p-value exceed 0.05.

3.6.2.6 Autocorrelation

The last test is on autocorrelation or as it is also called the correlation coefficient. The autocorrelation function can be used to answer the question of whether the sample data set are generated from a random process. The Durbin-Watson test is employed to determine whether the error terms in all regressions are auto correlated. For detecting whether there is any autocorrelation or not in

the data set used, it can be seen from the value of the Durbin-Watson (DW) test. The DW test is frequently used as a statistical test for detecting autocorrelation. In this regard, Kazmier (1996) stated that the value of the test statistic can range from 0 to 4.0, and is approximately 2.0 when there is no autocorrelation present with respect to the residual. Generally, if the value of the statistic is below 1.4, it indicates the existence of a strong positive series of correlation, while, a value greater than 2.6, indicates the existence of a strong negative series correlation (Kazmier, 2003).

3.6.3 Multiple Regression Analysis Results

For regression analysis, STATA 12.0 will be used for analysing the predictive power of the model hypothesised. Furthermore, is determining the predictive power of every independent variable with dependent variables, multiple regression analysis will be used. In addition, Moreover, it was used to identify and compare the predictive power of macroeconomic variables (GDPGR, DoP, EXR, INFR, GNI, BoP) and business environment (CCI, LBC, INFRAS) toward the FDI.

3.6.4 Hierarchical Regression Analysis

In this study, the hierarchical multiple regressions are used for examining the moderating influence of both political stability and economic stability on the macroeconomic variables and business variables in the FDI inflow of Yemen. In this study, the method of Frazier et al. (2004) and Baron and Kenny (1986) will be used in analysis of the moderating influence of both political stability and economic stability on the mentioned relationship.

124

3.7 Chapter Summary

This study is a combination of descriptive research framework, hypothesis development and analytical methods aimed at examining the FDI flows determinants (macroeconomics determinants and business environment) in the context of Yemen, with political stability and economic stability considered as a moderating variable. This study provides an empirical overview of the determining factors of FDI inflows into Yemen for the period of 1985 to 2014.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter reports the data analysis results pertaining to the hypothesised model. The chapter is divided into four main sections; unit roots analysis of the data, the descriptive analysis, model estimation, and the summary. The moderating effects of the political stability on the relationships were examined. In this chapter, before undertaking the hypotheses testing procedure, the researcher performed the stationarity analysis of the data, descriptive analysis, and the regression between, macroeconomic variables (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment), business environment variables (Corruption Control Index, Labour Cost and Infrastructure) and two moderating variables namely political stability with foreign direct investment inflows as the dependent variable.

4.2 Data Analysis

By using STATA software, the data for the present study was analysed in the following sequence; first, to check the stationarity of data to the multiple regression assumptions and second, to summarise data and analyse it through descriptive statistics. Finally, the hypotheses were tested through Pearson correlation of multiple regression analysis.

4.2.1 Stationarity Analysis of the Data

At this stage, the data was prepared to check the stationarity or non-stationarity of data analysis by ensuring the fulfilment of the stationarity analysis

126

assumptions. Under the present study, the empirical investigation was conducted on the determinants of FDI in Yemen with the help of time series data for the period from 1985 to 2014. The first step is to determine the variables order of integration and for this, the Augmented Dickey Fuller (ADF) test was employed. In this regard, time series data possesses the property of non-stationarity in levels. So the unit root tests were performed first for the variables stationary levels and to steer clear of spurious regression the properties of time series, data was investigated to identify whether or not the variables are stationary or non-stationary in nature.

4.2.1.1 Augmented Dickey Fuller (ADF)

Using the time series data in analysis involves preliminary steps. First, we should determine the form in which the series can be used for any subsequent estimation. For example, the non-stationary data will affect the regression issues, and the time series data trend showing growth or decline over time, must be removed prior to undertaking any estimation procedure.

In the present study, the Augmented Dickey Fuller (ADF) unit root tests are used to examine the stationary feature of the series used and integration order of non-stationary time series. All the variables have been checked one by one to see whether they are stationary or non-stationary.

The null hypothesis is that the variable consist of a unit root (non stationary), whereas the alternative is that the variable was created by a stationary process. Here we can overwhelmingly reject the null hypothesis of a unit root for variables (INF, BoP, DoP, and INFRAS) at common significance levels as the test statistic value is higher than the critical value .01 significant which is -

127

2.485, but a unit root for variable (FDI, GDPGR and CCI) at common
significance level as the test statistic value is higher than the critical value .05
significant which is -1.708, and a unit root for variable (LBC and ES) at
common significance level as the test statistic value is higher than the critical
value .10 significant which is -1.316. Aunit root for variable (EXR) at common
significance level as the test statistic value is higher than the critical value .05
significant which is -1.740, but in lagged differences is 5. And aunit root for
variable (PS) at common significance level as the test statistic value is higher
than the critical value .05 significant which is -1.833, but in lagged differences
is 5.

Table 4.1

ADF Unit Root Test Result

Variable	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value	lagged diff.	S/NS
FDI	-2.338	-2.485	-1.708	-1.316	1	S
GDPGR	-2.090	-2.485	-1.708	-1.316	1	S
DoP	-4.360	-2.485	-1.708	-1.316	1	S
EXR	-2.090	-2.567	-1.740	-1.333	5	S
INFR	-4.360	-2.485	-1.708	-1.316	1	S
GNI	-2.167	-2.485	-1.708	-1.316	1	S
BoP	-3.047	-2.485	-1.708	-1.316	1	S
CCI	-2.010	-2.485	-1.708	-1.316	1	S
LBC	-1.378	-2.485	-1.708	-1.316	1	S
INFRAS	-3.874	-2.485	-1.708	-1.316	1	S
PS	-1.895	-2.821	-1.833	-1.383	9	S
ES	-1.378	-2.485	-1.708	-1.316	1	S

FDI= Foreign Direct Investment inflows. GDPGR= Gross Domestic Production
Growth Rate. DoP= Degree of Openness. EXR= Exchange Rate. INFR= Inflation
Rate. GNI= Gross National Income. BoP= Balance of Payment. CCI= Corruption
Control Index. LBC= Labour Cost. INFRA= Infrastructure. PS= Political Stability.
ES= Economic Stability.

The null hypothesis of unit root is rejected if the test statistic is less than
.01,.05 and .1 critical value.

4.2.2 Descriptive Analysis

The descriptive analysis was conducted to describe the general situation of FDI inflows, macroeconomic variables (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment) and business environment variables (Corruption Control Index, Labour Cost and Infrastructure) and moderating role of political stability and economic stability in Yemen. In Table 4.2, the mean, standard deviation, minimum and maximum of the values of the variables are presented. These results reflect the level of FDI inflows and political stability and economic stability in the country. They indicate the minimum and maximum value, mean and standard deviation of variables namely FDI inflows, macroeconomic variables (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment), business environment variables (Corruption Control Index, Labour Cost and Infrastructure), political stability and economic stability.

Figure 4.1 shows that the mean of Foreign Direct Investment inflows in Yemen is US 109.69 million, with a standard deviation of US 480.303 million. The minimum value is in 2012 when the FDI inflow was US -531 million, whereas the maximum is in 2008, when the FDI inflow was US 1554.6 million. This is clearly seen from Figure 4.1.
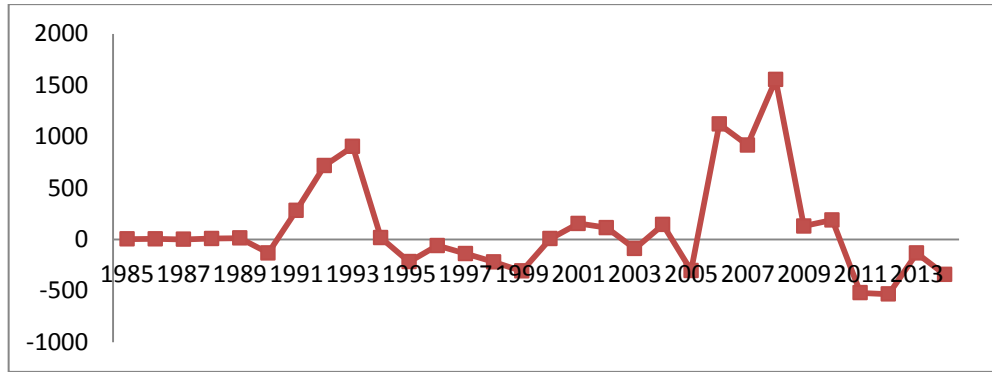
Source: CBY, UNCTAD, World Bank Reports, 2014
Figure 4.1 Foreign Direct Investment inflows

In terms of the Gross Domestic Production Growth Rate, Yemen has an average of 3.32 percent, with a standard deviation of 4.15 percent. Meanwhile, the minimum Gross Domestic Production Growth Rate is -13.00 percent in 2011. In 1993 and 2008, Yemen has the highest Gross Domestic Production Growth Rate, which is 8.20 for both years. This is clearly seen from Figure 4.2 when the Gross Domestic Production Growth Rate improved slightly but keeps decreasing from 2012 to 2014.
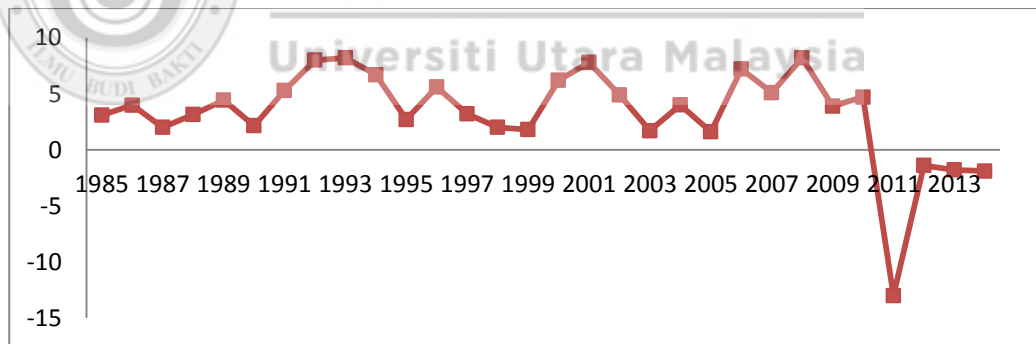
Source: UNCTAD, 2014
Figure 4.2 Gross Domestic Production Growth Rate

Yemen has a mean of .57 points of Degree of Openness, while the standard deviation of this index is .05. In terms of the minimum points, these are 0.49 in 1990 and 2001 and maximum points is 0.71 points for the year of 1996.
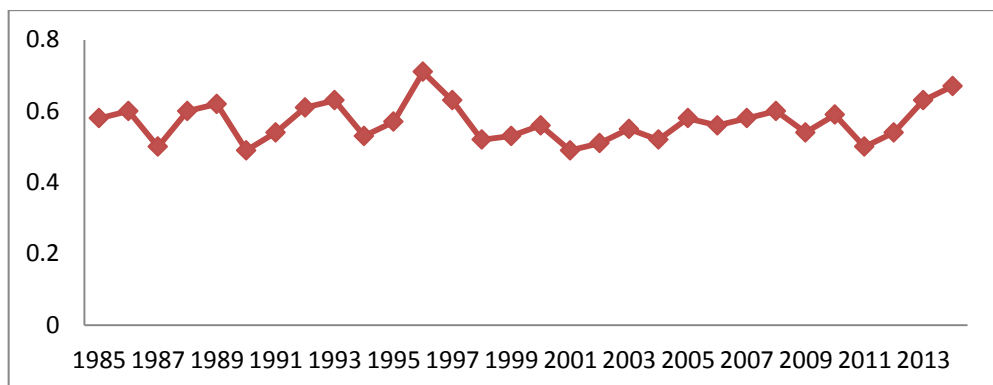
Source: UNCTAD, IMF, 2014
Figure 4.3 Degree of Openness

The average of the Exchange Rate is 133.55, with standard deviation values of 72.99. The lowest Exchange Rate is 33.80 in year 1990. On the other hand, year 2010 has the highest Exchange Rate, which is 219.6. Figure 4.4 shows that the Exchange Rate variable in Yemen reached its peak in 2010, then decreased slightly and rose again in 2014. The Exchange Rate was fairly stable from 1985 to 1990, then it rose in 1991 and fell in the period from 1992 to 1994. After that, it gradually rose with some minor fluctuation to reach its peak in 2010.
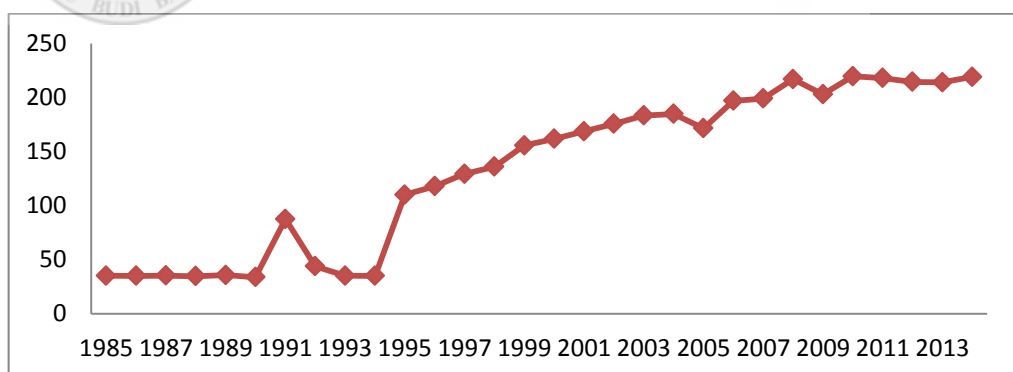
Source: UNCTAD, 2014
Figure 4.4 Exchange Rate

The mean of the percentage Inflation Rate is 18.45 while the minimum and maximum percentage are 1.5 and 55.10, respectively. Figure 4.5 indicates that Inflation Rate variable in Yemen drastically decreased in 1990, then increased dramatically to reach the maximum height in year 1995, then suddenly fell in

131

1997. This is followed by a moderate fluctuation. However, in the last three years, Inflation Rate began to decrease again.
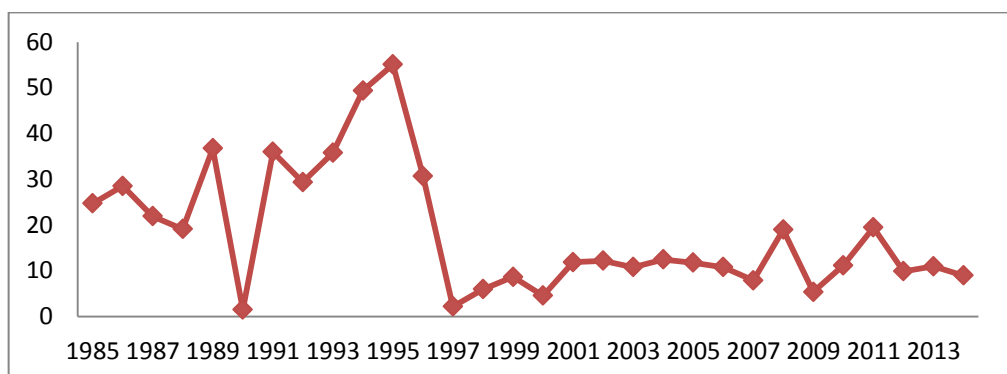
Source: CBY, 2014
Figure 4.5 Inflation Rate

For the variable of Gross National Income, Yemen has an average of 13.782 mn USD, with a standard deviation of 11.288 mn USD. Meanwhile the minimum Gross National Income is 2.06 mn USD in 1987. Yemen had the highest Gross National Income, which is 38.50 mn USD in the year 2014. This is clearly seen from figure 4.6 when the Gross National Income improved slightly except for some slight decrease in 2009.
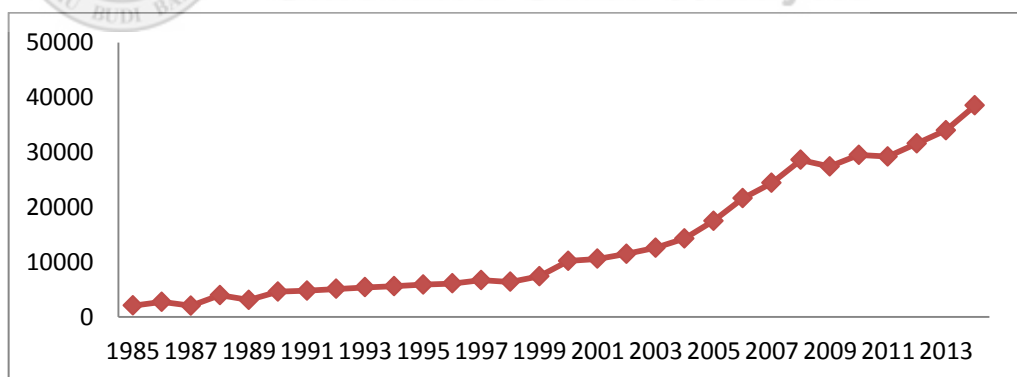
Source: UNCTAD, 2014
Figure 4.6 Gross National Income

The mean of the percentage of Balance of Payment is -.2551 while the minimum and maximum percentage are -10.00and 15.80 respectively, with standard deviation of 5.76. Figure 4.7 indicates that Balance of Payment variable in Yemen was low from 1985 until 1989. In 1990 it rose and reached

the highest level, then decreased in the next three years 1991, 1992 and 1993,
then rose in 1994. It decreased again in1998 just to rise again in the next two
years (1999 and 2000). It then dropped dramatically, especially in the last eight
years, where it remained low by negative percentage.
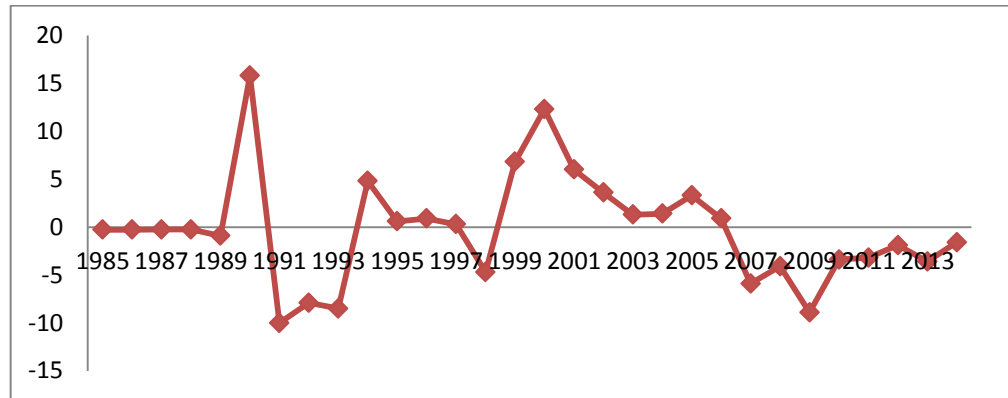
Source: World Bank Reports, 2014
Figure 4.7 Balance of Payment

As for the Corruption Control Index variable, Yemen has an average of -.90
score, with a standard deviation of .183. Meanwhile, Yemen reported the
lowest Corruption Control Index in 1996, which is -.4, and the highest
Corruption Control Index, which is -1.20 for each of the last five years.
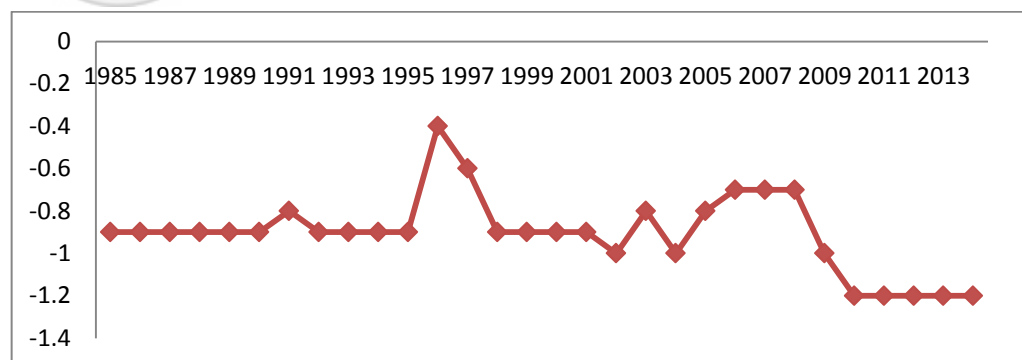
Source: World Bank Reports, 2014
Figure.4.8 Corruption Control Index

The mean of the Labour Cost is 65.85 USD while the minimum and maximum
are 22.70 and 100.05 USD respectively, with standard deviation of 28.98.
Figure 4.9 shows that the average minimum wage in Yemen rose with some

volatility from 1985 to 1999, it decreased in 2000 and 2001, only to increase

again with some minor volatility from 2002 to 2014.
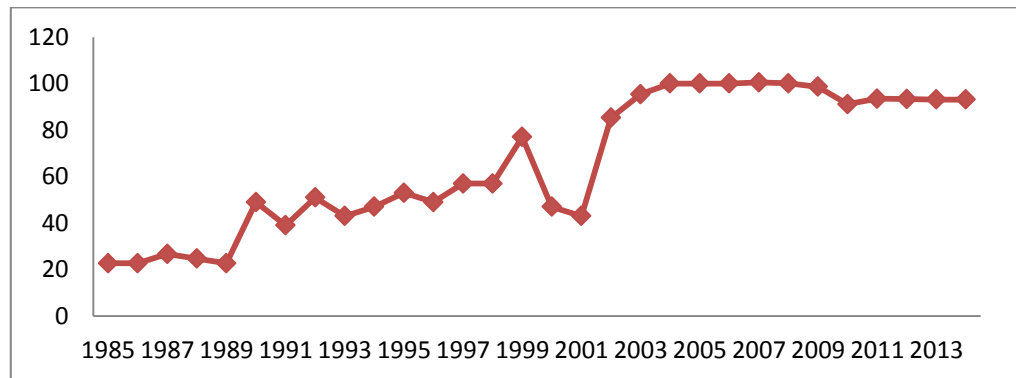
Figure.4.9 Labour Cost

With regards to Infrastructure, Yemen has an average of 2.89 score, with a

standard deviation of 0.20. In this regard, Yemen reported the highest

Infrastructure, which is 3.22 in the year 2003, and the minimum is 2.50 in the

years 1994 and 1996.
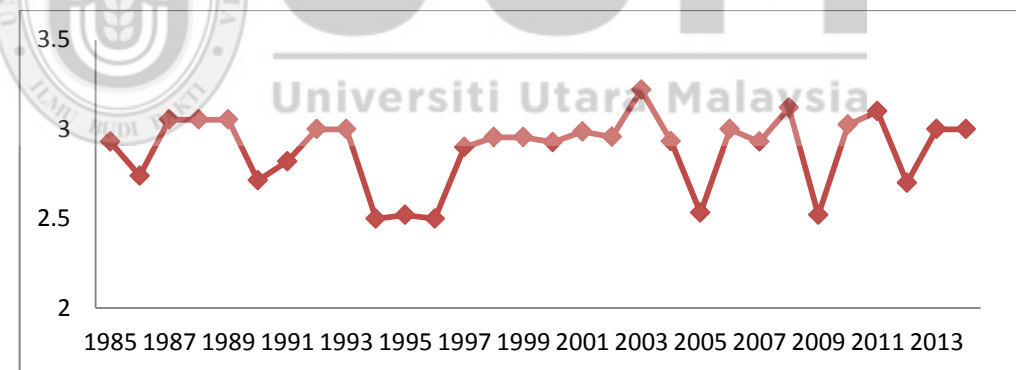
Figure.4.10 Infrastructure

The score of the PS variable ranges from (-2.5 weak; 2.5 strong), whereby the

lower Political Stability is indicated by a lower score, and vice versa.

Yemen has a mean of -1.75 points indicating that Yemen is considered as is a

country with a moderate Political Stability, while the standard deviation of this

score is 0.41. In terms of the minimum point, it is -2.50 in 1994 during the

Yemeni civil war. Figure 4.10 shows that Yemen Political Stability decreased gradually over the last eight years.
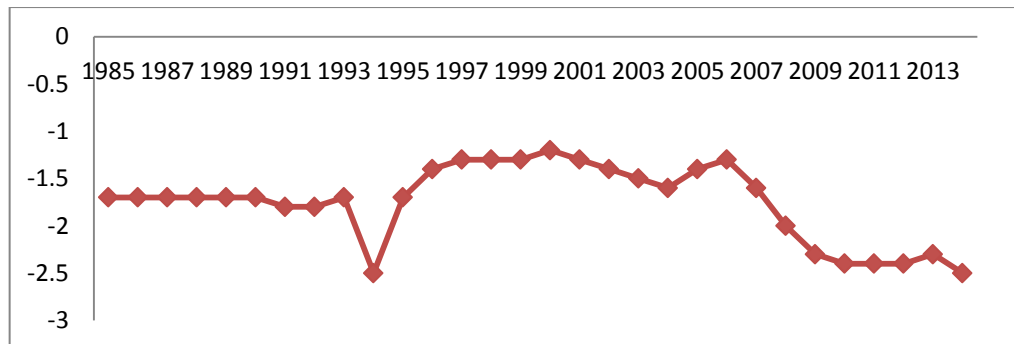
Source: World Bank Reports, 2014
Figure.4.11 Political Stability

As for the Economic Stability, Yemen has an average of .55 percentage, with a standard deviation of .43 percentage. The country obtained the the highest Economic Stability (1.45) in the year 2002, and the minimum (0.05) in the year 1993 followed by 0.09 percentage in 1994 and 0.11 in 2011. Figure 4.11 shows that Yemen Economic Stability fluctuated and decreased over the last ten years.
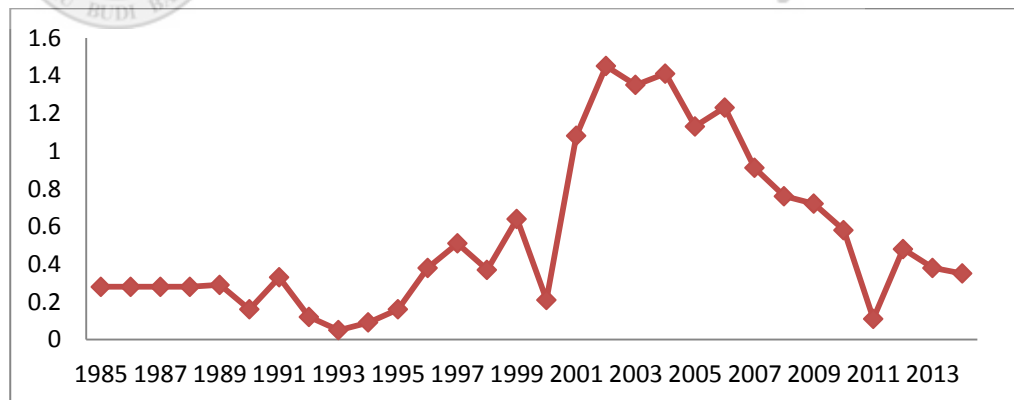
Source: UNCTAD, 2014
Figure.4.12 Economic Stability.

Table 4.2

Descriptive Statistics of the Variables (n=30)

variable	Unit	mean	min	max	sd
FDI	Mil. USD	109.69	-531.00	1554.60	480.30
GDPGR	Percentage	3.32	-13.00	8.20	4.15
DoP	Index	0.57	0.49	0.71	0.05
EXR	USD/YR	133.55	33.80	219.60	72.99
INFR	Percentage	18.45	1.50	55.10	13.76
GNI	Mil. USD	13782	2060	38500	11288
BoP	Percentage	-0.26	-10.00	15.80	5.76
CCI	Index	-0.90	-1.20	-0.40	0.18
LBC	USD	65.85	22.70	100.50	28.98
INFRAS	Index	2.89	2.50	3.22	0.20
PS	Index	-1.75	-2.50	-1.20	0.41
ES	Percentage	0.55	0.05	1.45	0.43

FDI= Foreign Direct Investment inflows. GDPGR= Gross Domestic Production Growth Rate. DoP= Degree of Openness. EXR= Exchange Rate. INFR= Inflation Rate. GNI= Gross National Income. BoP= Balance of Payment. CCI= Corruption Control Index. LBC= Labour Cost. INFRA= Infrastructure. PS= Political Stability. ES= Economic Stability

4.3 Diagnostic Test

Before running the multiple regression analysis, it should be noted that there are several classic assumptions namely outlier, normality, linearity, multicollinearity, heteroscedasticity and autocorrelation that have to be confirmed first. All these tests are conducted accordingly.

4.3.1 Outliers

Outliers refer to observations possessing distinct characteristics that differentiates them from other observations (Hair et al., 2010). A few methods were proposed in literature for the detection of outliers. In regards to this, observations having high standardised residual have the potential to be

influential outliers and as such, they are identified and deleted as recommended by Hair et al. (2010). Winsorizing or eliminating used to be the common way of handling outliers.. This is because in order to achieve robust statistics, outliers their values are modified (Nilsen, 2015; Ghosh & Vogt, 2012).
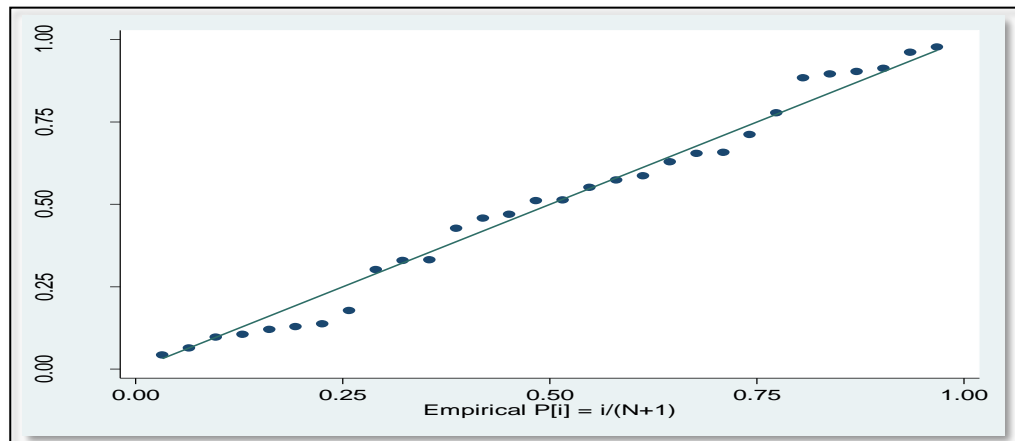
Figure 4.13 Outliers

4.3.2 Normality Test

Normality, being the major assumption in data analysis, refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution. Hair et al. (2010) referred to it as the benchmark for statistical methods. As it is a requirement for one to use the F and t statistic, the variation from the normal distribution needs to be small. For large variations, this renders all statistical tests resulting from the analysis invalid. There are several ways in which one could describe the distribution if it differs from the normal distribution.

In other words, the normality for each variable may be checked in a number of ways, such as using a histogram with normality plot, the Kolmogorov-Smirnov, and skewness and kurtosis values. As the Kolmogorov-Smirnov normality test is very sensitive, the standard skewness and kurtosis was adopted in this study. Skewness and kurtosis are among the most popular

137

approaches in describing the shapes or distribution of a data set. The data is said to be normal if the standard skewness is within ±1.96 and standard kurtosis is between ±3.0 (Abdurrahman & Haniffa, 2004; Haniffa & Hudaib, 2004). However, for skewness, Hair et al. (2010) and Kline (1998) suggested a higher threshold of ±3. Kline (1998) also suggested a higher threshold of kurtosis at ±10.

Following the guidelines of severe nonnormality (i.e. skewness > 3; kurtosis > 10) proposed by Kline (2005), the results from this approach in Table 4.3 leads to the conclusion that the data set has no serious violation of the normality assumption. Therefore, it is assumed that the data is normally distributed.
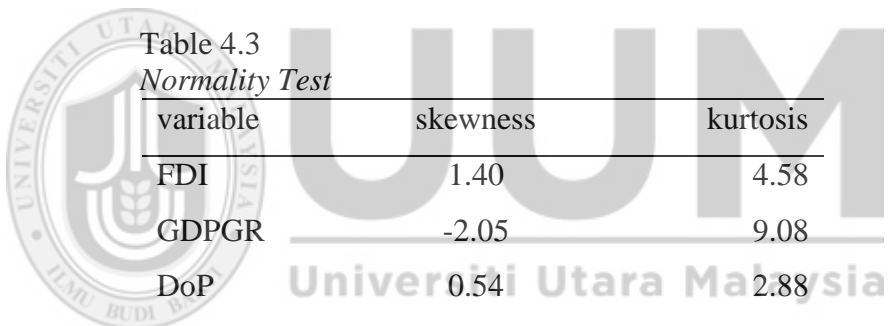
Table 4.3
Normality Test

variable	skewness	kurtosis
FDI	1.40	4.58
GDPGR	-2.05	9.08
DoP	0.54	2.88
EXR	-0.33	1.50
INFR	1.05	3.35
GNI	0.78	2.14
BoP	0.72	3.91
CCI	0.29	3.74
LBC	-0.11	1.46
INFRAS	-0.82	2.56
PS	-0.61	2.13
ES	0.90	2.52

FDI= Foreign Direct Investment inflows. GDPGR= Gross Domestic Production Growth Rate. DoP= Degree of Openness. EXR= Exchange Rate. INFR= Inflation Rate. BoP= Balance of Payment. CCI= CorruptionControl Index. LBC= Labour Cost. INFRAS= Infrastructure. PS= Political Stability. ES= Economic Stability.

The assumption of normality also was confirmed by examining kernel density estimate. Figure 4.14 showed that the data set has no serious violation of the normality assumption; therefore, it is assumed that the data are normally distributed.
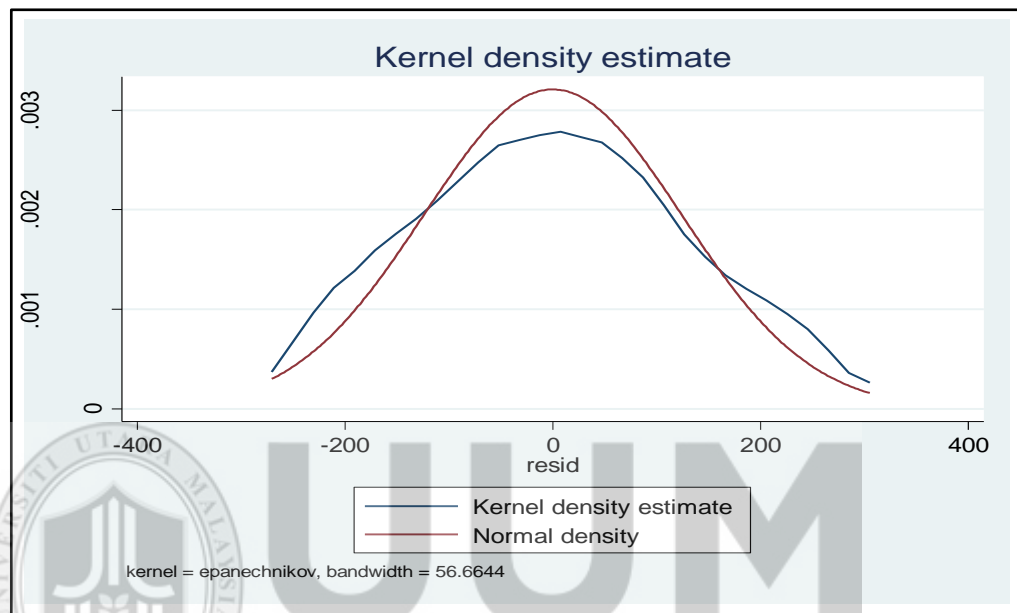
Figure 4.14 Normality

4.3.3 Linearity

The relationship between the dependent variable and independent variables should be linear. In order to confirm the linearity assumption of the regression model, the standard test involves plotting a histogram of the residuals distribution. If the distribution line forms a normal curve, the data is aligned with normal assumption. The linearity relationship between the dependent and independent variables indicates the level to which any change in the dependent variable is related to its independent counterparts (Hair et al., 2010). Hence, nonlinearity is not an issue in regression if the standard deviation of the dependent variable is higher compared to that of residuals.

The standard deviation of the dependent variable in this study is higher than that of the residuals as presented in Table 4.4.

Table 4.4

Linearity Test

variable	sd
FDI	480.3026
resid	124.3059

4.3.4 Multicollinearity

Before the regression results can be considered valid, the degree of multicollinearity and effect on the results are examined. Multicollinearity is the inter-correlation of the independent variables. It decreases the ability to predict the measure and ascertain the relative role of each independent variable. Substantial multicollinearity between independent variables is not good as the estimated regression coefficient becomes unreliable. To check for multicollinearity, this study looks at the correlation matrix (r) for the bivariate analyses between independent variables and the variance inflation factor (VIF). The acceptable values for collinearty on the basis of Hair et al.'s (2010) study is a tolerance value over 0.1 or a VIF value lower than 10 - such values indicate little to no multicollinearity. Added to this, a maximum VIF value exceeding 10 frequently indicates that multicollinearity may affect the least squares estimates. In other words, a considerably large VIF value and small tolerance value are indicators of multicollinearity issue. Thus, Table 4.5 indicates that there is no multicollinearity problem. Further, the results of the standard tests on VIFs in Table 4.5 indicate that there is no multicollinearity problem, as the VIFs are below the threshold value of 10.

Table 4.5
Multicollinearity Test

Variable	VIF	1/VIF
GDPGR	1.79	0.560
DoP	1.53	0.654
EXR	5.02	0.199
INFR	2.27	0.441
GNIwins	8.21	0.121
BoP	1.56	0.641
CCI	2.96	0.338
LBC	7.97	0.125
INFRAS	1.43	0.701
PS	5.5	0.181
ES	3.61	0.277
Mean VIF	3.8	

FDI= Foreign Direct Investment inflows. GDPGR= Gross Domestic Production Growth Rate. DoP= Degree of Openness. EXR = Exchange Rate. INFR= Inflation Rate. GNI= Gross National Income. BoP= Balance of Payment. CCI= Corruption Control Index. LBC =Labour Cost. INFRAS= Infrastructure Index. PS= Political Stability. ES= Economic Stability.

Table 4.6 presents the correlation matrix for the dependent, independent and moderating variables. The correlation coefficients between variables are obtained from Pearson tests. A rule of thumb established that values of 0.8 are in the range of acceptance (Bryman & Cramer, 1990). If the correlation is either 0.9 or above, there will be a serious issue (Hair et al., 2010; Pallant, 2001). Overall, there are a number of statistically significant correlations between, macroeconomic variables, business environment variables, moderating variables and FDI inflow but the correlation is no more than 0.90.

Table 4.6
Pearson Correlation Matrix

	FDI	GDPGR	DoP	EXR	INFR	GNI	BoP	CCI	LBC	INFRAS	PS	ES
FDI	1								.			
GDPGR	.663**	1										
DoP	.160	.164	1									
EXR	-.027	-.267	-.052	1								
INFR	.097	.207	.200	-.535**	1							
GNI	.147	-.337	.015	.785**	-.480**	1						
BoP	-.336	.012	-.319	-.080	-.241	-.235	1					
CCI	.396*	.536**	.277	-.163	.138	-.383*	.087	1				
LBC	.114	-.280	-.072	.849**	-.499**	.874**	-.139	-.233	1			
INFRAS	.281	-.103	-.050	.097	-.298	.138	-.145	-.196	.073	1		
PS	.129	.405*	-.085	-.064	-.177	-.459*	.372*	.651**	-.258	.096	1	
ES	.202	.174	-.252	.576**	-.452*	.418*	.111	.146	.601**	.167	.354	1

N=30

** : p< 0.01 (2-tailed), *: p< 0.05 (2-tailed). Where:

FDI= Foreign Direct Investment inflows. GDPGR= Gross Domestic Production Growth Rate. DoP = Degree of Openness. EXR = Exchange Rate. INFR = Inflation Rate. GNI = Gross National Income. BoP = Balance of Payment. CCI = Corruption Control Index. LBC = Labour Cost. INFRAS = Infrastructure Index. PS = Political Stability. ES = Economic Stability.

According to Hair et al. (2010), when determining the strength of the relationships between every independent and dependent variable, the correlation value of 0 shows no relationship and the correlation of ±1.0 shows perfect relationship. On the other hand, Cohen (1988) established the following set of criteria between 0 and 1.0; correlation (r) value between ±0.1 and ±0.29 indicates small relationship, between ±0.30 and ±0.49 indicates medium relationship and lastly, value above ±0.50 indicates significant and robust relationship.

For example in the table above, PS and ES > 0.05 value indicates that we can't reject the null hypothesis that the two variables are not correlated withe FDI. In other words, we have evidence the variables are not significantly related.

Based on the results in Table 4.6, some of the Pearson correlation coefficients were found to be significant at the 0.01 and 0.05 level of significance . In other words, the data under the present study supported the existence of significant relationships between FDI construct and its factors and political stability of Yemen.

4.3.5 Heteroscedasticity

Heteroscedasticity refers to the constant variance of the variable, revealing similar amounts of difference throughout the independent variable's range of values (Ashley, 2012, Hair. et al, 2010). It becomes an issue if the variance of the residuals is not constant in which case the residuals should be randomly dispersed according to the predicted value of the dependent variable. Stated

differently, if the model has a well-fit, there should be no residual pattern plotted against the fitted values. If the p-value exceeds 0.05, the hypothesis is rejected. In this study, Breusch-Pagan/ Cook-Weisberg test used for heteroscedasticity . heteroscedasticity p-value exceeded 0.05 indicating that the study sample does not suffer from heteroscedasticity.

4.3.6 Autocorrelation

Autocorrelation of the correlation coefficient is the next test to be conducted. The function of autocorrelation can be utilised to determine whether or not the sample data set is produced randomly. For this test, the Durbin-Watson test is used to know whether the error terms in the entire regressions are auto-correlated. To determine if there are any autocorrelation in the data set utilised, the value of Durbin-Watson (DW) should be calculated. The DW test is often employed as a statistical test to detect autocorrelation. In relation to this, Kazmier (1996), opined that the value of the test statistic can differ from 0 to 4.0 and in case there is no autocorrelation with respect to the residual, it is approximately 2.0. Moreover, if the statistic value is lower than 1.4, it shows the presence of a significant positive series of correlation, whereas if the the value is higher than 2.6, it shows the presence of a significant negative series correlation (Kazmier, 2003). The Durbin-Watson value (DW) can be determined through the STATA program with the coefficient of determination (R2), and the Standard Error Estimation (SEE) value that is higher than 1.4 and higher than 2.6 respectively.

4.4 Results of Regression

After all the regression assumptions were checked, no issues were found and therefore, this study ran the regression analysis using STATA 12.0 to examine the predictive power of the hypothesised model. In other words, the main purpose of the multiple regression analysis is to determine the predictive power of each independent variable toward the dependent variable. Moreover, it was used to identify and compare the predictive power of the dimensions of macroeconomic variables (GDPGR, DoP, EXR, INFR, GNI, BoP) and business environment variables (CCI, LBC, INFRAS) and moderating role of political stability (PS) and economic stability (ES) in Yemen toward the FDI.

4.4.1 Multiple Regression Analysis Results

According to the multiple regression analysis performed, and its results reported in Table 4.7, it can be concluded that GDGDR(β =86.68, t= 9.63, p<0.01), GNI(β =0.0573, t=5.08, p<0.01), CCI(β =952.8, t=3.63, p<0.01), LBC(β=7.925, t=2.91, p<0.01) and INFRAS(β =976.9, t=5.94, p<0.01), have a significant positive impact on FDI inflows at 0.01 levels of significance, INFR (β =8.783, t=2.88, p<0.05) has a significant positive impact on FDI inflows at 0.05 level of significance, and PS(β=301.7, t= 1.89, p<0.1) has a significant positive impact on FDI inflows at 0.1 level of significance. On the other hand, DoP(β=-2028.5, t=-3.19, p<0.01), EXR(β=-325.6, t= -3.95, p<0.01) and ES(β =-464.7, t= -3.74, p<0.01), have significant negative impact on FDI inflows at 0.01 level of significance, and BoP(β=-12.90, t=-2.13, p<0.05) has a significant negative impact on FDI inflows at 0.05 level of significance. Additionally, the

145

results revealed that DoP, CCI, and INFRAS have greater impacts than other

variables on the FDI inflows in Yemen.

These results, supported all hypotheses (H1, H2, H3, H4, H5, H6, H7, H8, H9,

H10 and H11) confirming the the impact of GDPGR, DoP, EXR, INFR, GNI,

BoP, CCI, LBC, INFRAS, PS and ES.

Table 4.7
Examining Variables' predictive power

FDI= a_0+ a_1GDPGR+ a_2DoP+ a_3EXR+ a_4INFR+ a_5GNI+ a_6BoP+ a_7CCI+ a_8LBC+ a_9INFRAS+ a_{10}PS+ a_{11}ES + e.

	Coef	t.stat	Sig
GDPGR	86.68***	9.63	0.000
DoP	-2028.5***	-3.19	0.005
EXR	-325.6***	-3.95	0.001
INFR	8.783**	2.88	0.010
GNI	0.0573***	5.08	0.000
BoP	-12.90**	-2.13	0.047
CCI	952.8***	3.63	0.002
LBC	7.925***	2.91	0.009
INFRAS	976.9***	5.94	0.000
PS	301.7*	1.89	0.075
ES	-464.7***	-3.74	0.002
_cons	-51.78984	-0.07	0.947

N=30
F(11, 18)   =   25.23
Prob > F   =   0.0000
R-squared   =   0.9391
Adj R-squared =   0.9019
Durbin-Watson=   2.1778
Heteroscedasticity = 0.905

*, **, *** = p-value < .10, .05, .01, respectively, Where:
FDI= Foreign Direct Investment inflows. GDPGR= Gross Domestic Production Growth Rate. DoP= Degree of Openness. EXR = Exchange Rate. INFR= Inflation Rate. BoP= Balance of Payment. CCI= Corruption Control Index. LBC= Labour Cost. INFRAS= Infrastructure Index. PS= Political Stability. ES Economic Stability.

Table 4.8
Summary of the Hypotheses Testing Results of predictive power

Hy no	Hypothesis statement	Decision
H1	GDP growth rate has a significant effect on the FDI inflows in Yemen.	Supported
H2	Degree of Openness has a significant effect on the FDI inflows in Yemen.	Supported
H3	Exchange Rate has a significant effect on the FDI inflows in Yemen.	Supported
H4	Inflation Rate has a significant effect on the FDI inflows in Yemen.	Supported
H5	Gross National Income has a significant effect on the FDI inflows in Yemen.	Supported
H6	Balance of Payment has a significant effect on the FDI inflows in Yemen.	Supported
H7	Corruption Control Index has a significant effect on the FDI in Yemen.	Supported
H8	Labour Cost has a significant effect on the FDI inflows in Yemen.	Supported
H9	Infrastructure has a significant effect on the FDI inflows in Yemen.	Supported
H10	Political Stability has a significant effect on the FDI inflows in Yemen.	Supported
H11	Economic Stability has a significant effect on the FDI inflows in Yemen.	Supported

4.4.2 Hierarchical Regression Analysis Results

As stated earlier, this study employed hierarchical regression to examine the moderating effect of political stability on the macroeconomic variables and business variables in FDI inflows in Yemen. The hierarchical regression results were reported following the analysis stage. First, this study examined the

moderating effect of political stability on the above mentioned relationships following the method of Frazier et al. (2004).

Before proceeding to get the interaction terms to measure the moderating effect, all the variables mean to be used were standardised. This means that the mean of each variable was subtracted from all the values of that variable and subsequently all the values of the variable were divided by its standard deviations. As suggested by Baron and Kenny (1986), the regression analyses were performed in several blocks. In the first block, the independent variables were included to examine their predictive power against the dependent variable. The second block includes the moderator variable while the third block includes the interaction terms. This implies that the third block includes all the variables and the interaction terms.

According to the analysis of hierarchical regressions, the results are reported in the following fashion:

4.4.2.1 The Moderating Effect

According to the regression results depicted in Table 4.9 the analysis was processed through the following steps:

Effect of (IVs) on FDI : In this step the predictors namely, macroeconomic variables (GDPGR, DoP, EXR, INFR, GNI and BoP) and business environment variables (CCI, LBC and INFRAS) were introduced to the model. This step was found to be significant at the 0.01 level of significance with an R2 of 0.8914. In addition to that, eight predictors were found to be significantly different from zero. More specifically, GDGDR(β =74.83, t=7.21, p<0.01), GNI(β =0.05, t=4.07, p<0.01), CCI(β =1058.10, t=3.98, p<0.01), INFRAS(β

148

=922.58, t=4.76, p<0.01), INFR(β=7.36, t=2.05, p<0.1) had significant positive impact on FDI inflows. DoP(β = -1344.62, t=-1.79, p<0.1), EXR(β=-305.63, t=-3.27, p<0.01), BoP(β=-13.13, t=-1.76, p<0.1) had significant negative impact on FDI inflows in Yemen. Another predictor namely LBC had no significant impact on FDI inflows.

Effect of (IVs) and (MV) on FDI: The moderating variable in this step namely political stability (PS) and economic stability (ES) was introduced as independent variables after which the model was proven to be significant at the significance level of 0.001 (F=25.23, P<0.001), with an R2 of 0.9391. In this step, macroeconomic variables (GDPGR, DoP, EXR, INFR, GNI, BoP) and business environment variables (CCI, LBC, INFRAS) and the moderating variable (PS) were all found to be significant with FDI inflows. In other words, GDGDR (β =86.68, t= 9.63, p<0.01), GNI (β =0.0573, t=5.08, p<0.01), CCI (β =952.8, t=3.63, p<0.01), LBC (β =7.925, t=2.91, p<0.01), INFRAS (β =976.9, t=5.94, p<0.01),INFR (β = 8.783, t=2.88, p<0.05) and PS (β = 301.7, t= 1.89, p<0.1) had significant positive impacts on FDI inflows.

On the othe hand, ES (β =464.7, t=-3.74, p<0.01), DoP (β =-2028.5, t=-3.19, p<0.01), and EXR (β = -325.6, t=-3.95, p<0.01) and BoP (β =-12.90, t=-2.13, p<0.05) had significant negative impact on FDI inflows in Yemen.

Furthermore, Adj R-squared increased from 0.8426 in step One to 0.9019 in step Two, while Coef. value for GDPGR increased from 74.83 in step One to 86.68 in step Two. Added to this, Coef. value for DoP increased from -1344.62 in step One to -2028.5 in step Two. Coef of EXR variable also increased from -305.63 in step One to -325.6 in step Two and Coef. of INFR value increased

from 7.36 in step One to 8.783 in step Two, and Coef. value of GNI became 0.0573, indicating an increase from 0.05 in step One. BoP Coef. value decreased from -13.13 in step One to -12.90 in step Two, while CCI Coef. value decreased from 1058.10 in step One to 952.8 in step Two but remained significant. In step One, Coef. of LBC variable was not significant at 3.32, and became significant and increased to 7.925 in step Two. Coef. value for INFRAS increased from 922.58 in step One to 976.9 in step Two.

Effect of (IVs*MV(PS)) on FDI: In this step, the interaction terms between the macroeconomic variables, business environment variables and political stability were examined to test the moderating effect. The results in Table 4.13 indicated that GDPGR was a positive significant predictor of the FDI inflows at the 0.01 level of significance (β =302, t=5.17, p<0.01).

The interaction terms between political stability, macroeconomic variables, variables were examined. It was found that while the interaction terms between GDPGR and PS was found to be positive and significant at the 0.01 level of significant (β =99.25, t= 374, p<0.01).

The interaction terms between political stability, business environment variables were also examined and the result highlighted that interaction between CCI and PS was negative and significant at the 0.05 level of significant (β =-1912.8, t=-2.39, p<0.05).

These results indicated that political stability positively and significantly moderated the effect of GDPGR on FDI inflows at the 0.01 level of significance. They also indicated that political stability negatively and

significantly moderated the effect of CCI on FDI inflows at the 0.05 level of significance.

This result supported hypothesis H12, and H18. Details of the interaction terms are presented in Table 4.9.

Effect of (IVs*MV(ES)) on FDI: In this step, the interaction terms between the macroeconomic variables, business environment variables and economic stability were examined to test the moderating effect. The results in Table 4.9 indicated that GDPGR and GNI were positive significant predictors of the FDI inflows at the 0.01 level of significance (β =70.50, t=3.80, p<0.01) and (β = 0.0875, t=-2.50, p<0.01), while EXR was negative significant predictor of the FDI inflows at the 0.01 level of significance (β =-618.6, t=-3.33, p<0.01).

The interaction terms between economic stability and macroeconomic variables, and business environment variables were examined. It was found that while the interaction term between GDPGR and ES was found to be positive and significant at the 0.01 level of significance (β=121.1, t=3.49, p<0.01), the interaction term between GNI and ES was found to be negative and significant at the 0.1 level of significance (β=-0.0950, t=-1.93, p<0.1).

The interaction terms between business environment variables and economic stability were not significant. The results also indicated that economic stability positively and significantly moderated the effect of GDPGR on FDI inflows at the 0.01 level of significance and indicated that economic stability negatively and significantly moderated the effect of GNI on FDI inflows at 0.1 level of significance. This result supported hypothesis H21, and H25. Details of the interaction terms are presented in Table 4.9.

151

Table 4.9 *Examining the Moderating Effect*

$FDI = a_0 + a_1GDPGR + a_2DoP + a_3EXR + a_4INFR + a_5GNI + a_6BoP + a_7CCI + a_8LBC + a_9INFRAS + a_{10}PS + a_{11}ES + a_{12}GDPGR*PS + a_{13}DoP*PS + a_{14}EXR*PS + a_{15}INFR*PS + a_{16}GNI*PS + a_{17}BoP*PS + a_{18}CCI*PS + a_{19}LBC*PS + a_{20}INFRAS*PS + a_{21}GDPGR*ES + a_{22}DoP*ES + a_{23}EXR*ES + a_{24}INFR*ES + a_{25}GNI*ES + _{26}BoP*ES + a_{27}CCI*ES + a_{28}LBC*ES + a_{29}INFRAS*ES + e.$

Variables	IV(s) Coef	t.stat	IV(s), MV Coef	t.stat	IVs*MV(PS) Coef	t.stat	IVs*MV(ES) Coef	t.stat
GDPGR	74.83***	7.21	86.68***	9.63	302.0***	5.17	70.50***	t.stat
DoP	-1344.62*	-1.79	-2028.5***	-3.19	-2342.4	-0.62	-975.4	3.80
EXR	-305.63***	-3.27	-325.6***	-3.95	-1708.0	-1.56	-618.6***	-0.65
INFR	7.36*	2.05	8.783**	2.88	-29.61	-0.93	-1.560	-3.33
GNI	0.05***	4.07	0.0573***	5.08	-0.0235	-0.28	0.0875**	-0.31
BoP	-13.13*	-1.76	-12.90**	-2.13	-39.45	-1.10	-19.78	2.50
CCI	1058.10***	3.98	952.8***	3.63	-2167.6	-1.43	-219.0	-1.47
LBC	3.32	1.08	7.925***	2.91	38.76	1.67	9.381	-0.26
INFRAS	922.58***	4.76	976.9***	5.94	0.749	0.00	300.9	1.59
PS			301.7*	1.89	2705.7	0.70	538.9*	0.71
ES			-464.7***	-3.74	-355.1**	-2.51	-2758.9	2.24
GDPGR* PS					99.25***	3.74		
DoP* PS					-548.1	-0.29		
EXR* PS					-856.3	-1.38		
INFR* PS					-18.64	-0.94		
GNI* PS					-0.0364	-0.68		
BoP* PS					-17.94	-0.81		
CCI* PS					-1912.8**	-2.39		
LBC* PS					18.64	1.23		
INFRAS* PS					-320.7	-0.74		

152

Table 4.9 (Continued)

Variables	IV(s)		IV(s), MV		IVs*MV(PS)		IVs*MV(ES)	
	Coef	t.stat	Coef	t.stat	Coef	t.stat	Coef	t.stat
GDPGR* ES							121.1***	-0.48
DoP* ES							120.1	3.49
EXR* ES							487.9	0.03
INFR* ES							27.97	0.59
GNI* ES							-0.0950*	1.77
BoP* ES							-15.60	-1.93
CCI* ES							1153.4	-0.48
LBC* ES							9.075	0.94
INFRAS* ES							144.4	1.24
_cons	-606.91	-0.68	-51.78984	-0.07	4894.8	0.65	1904.4	0.26

N=30	*N=30*	*N=30*	*N=30*
F(9,20) =18.24	*F(11,18)=25.23*	*F(19,10)= 18.79*	*F (20, 9) =31.87*
Prob > F = 0.0000	*Prob > F=0.0000*	*Prob > F=0.0000*	*Prob > F=0.0000*
R-squared = 0.8914	*R-squared=0.9391*	*R-squared=0.9728*	*R-squared= 0.9861*
Adj R-squared= 0.8426	*Adj R squared=0.9019*	*Adj R-squared = 0.9210*	*Adj R squared= 0.9551*
Durbin-Watson= 1.8740	*Durbin-Watson= 2.1778*	*Durbin-Watson= 1.7290*	*Durbin-Watson= 2.1042*
Heteroscedasticity =0.905	*Heteroscedasticity=0.493*	*Heteroscedasticity= 0.134*	*Heteroscedasticity= 0.791*

*, **, *** = p-value < .10, .05, .01, respectively, Where:

FDI= Foreign Direct Investment inflows. GDPGR= Gross Domestic Production Growth Rate. DoP= Degree of Openness. EXR = Exchange Rate. INFR= Inflation Rate. BoP= Balance of Payment. CCI= Corruption Control Index. LBC= Labour Cost. INFRAS= Infrastructure Index. PS= Political Stability. ES= Economic Stability.

153

Based on the findings from the Pearson correlation analysis and hierarchical regression analyses conducted, Table 4.10 summarised the findings related to the hypotheses testing procedures at the 0.1, 0.05 and 0.01 levels of significance.

Table 4.10
Summary of the Hypotheses Testing Results of the Moderating Effect

Hy no	Hypothesis statement	Decision
H12	Political Stability moderates the relationship between GDP growth rate and the FDI inflows in Yemen.	Supported
H13	Political Stability moderates the relationship between Degree of Openness and the FDI inflows in Yemen.	Not Supported
H14	Political Stability moderates the relationship between Exchange Rate and the FDI inflows in Yemen.	Not Supported
H15	Political Stability moderates the relationship between Inflation Rate and the FDI inflows in Yemen.	Not Supported
H16	Political Stability moderates the relationship between Gross National Income and the FDI inflows in Yemen.	Not Supported
H17	Political Stability moderates the relationship between Balance of Payment and the FDI inflows in Yemen.	Not Supported
H18	Political Stability moderates the relationship between Corruption Control Index and the FDI inflows in Yemen.	Supported
H19	Political Stability moderates the relationship between Labour Cost and the FDI inflows in Yemen	Not Supported
H20	Political Stability moderates the relationship between Infrastructure and the FDI inflows in Yemen.	Not Supported
H21	Economic Stability moderates the relationship between GDP growth rate and the FDI inflows in Yemen.	Supported
H22	Economic Stability moderates the relationship between Degree of Openness and the FDI inflows in Yemen.	Not Supported
H23	Economic Stability moderates the relationship between Exchange Rate and the FDI inflows in Yemen.	Not Supported

Table 4.10 (Continued)

Hy no	Hypothesis statement	Decision
H24	Economic Stability moderates the relationship between Inflation Rate and the FDI inflows in Yemen.	Not Supported
H25	Economic Stability moderates the relationship between Gross National Income and the FDI inflows in Yemen.	Supported
H26	Economic Stability moderates the relationship between Balance of Payment and the FDI inflows in Yemen.	Not Supported
H27	Economic Stability moderates the relationship between Corruption Control Index and the FDI inflows in Yemen.	Not Supported
H28	Economic Stability moderates the relationship between Labour Cost and the FDI inflows in Yemen	Not Supported
H29	Political Stability moderates the relationship between Infrastructure and the FDI inflows in Yemen.	Not Supported

4.5 Chapter Summary

This chapter reported the findings of this study. This study is based on the time series data for the period from 1985 to 2014 of Yemen. In the first step, the assumption of the data to be stationary or non-stationary was determined using the STATA version 12.0. The next step entailed a detailed discussion on the construct validity to ensure the quality of the model that was undertaken for the hypotheses testing procedures.

In the process of empirical analysis, however, some limitation may be attributed to the time length of the data that was confined to 30 years. To test the hypotheses of this study, Pearson correlation and hierarchical multiple linear regression were employed. The results of this study supported some of the hypotheses; apparently, the findings did not support all the hypotheses in

the testing. In the course of the above discussion, tables and graphs in the preceding subsections were devoted to examine the obtained results of the statistical techniques that have been used. In particular, data in Table 4.9, 4.11, 4.13 and table 4.15 summarily reported the findings of the study obtained from the moderated model discussed in this chapter.

In sum, the results of this study obtained from Pearson correlation and hierarchical multiple linear regression analyses revealed that while several hypotheses were supported by the empirical results, some were rejected. In specific terms, the relevant tables (4.7 and 4.9) showed that H1, H2, H3, H4, H5, H6, H7, H8, H9, H10, H11, H12, H18, H21 and H25 were supported, whereas, H13, H14, H15, H16. H17, H19, H20, H22, H23, H24, H26, H27, H28 and H29 were not supported.The hypothesis supported that GDPGR, DoP, EXR, INFR, GNI, BoP, CCI, LBC and INFRAS in Yemen are very important variables, and that political stability and econpmic stability are both decisive for the country's FDI inflow.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter explains the findings, the contribution of the study to current literature and it summarises the study. For macroeconomic policy, this chapter points out future course of directions which constitute the several supportive roles to the policy makers of Yemen and other countries which are considered developing in order to create an environment which is considered attractive for foreign investors. This chapter also entails the study's limitation and recommendations to tackle the encountered limitations in future research. The chapter provides conclusive remarks at the end of the study.

5.2 Summary of the Study

Foreign Direct Investment provides different benefits to the economic growth of the host country through the provision of several benefits such as foreign exchange, capital, organisational framework and managerial skills and the access of exports in foreign markets (Badr & Ayed, 2015; Margeirsson, 2015; Alfaro, 2014; UNCTAD, 2014; Hanif & Jalaluddin, 2013; Selma, 2013).

On the basis of the problem statement and comprehensive review of Chapter One, Chapter Two and Chapter Three, the following objectives are focused on in this study:

1. To examine the relationship between macroeconomic determinants (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment) and FDI inflows in Yemen.

2. To determine the relationship between business environment (Corruption Control Index, Labour Cost and Infrastructure) and FDI inflows in Yemen.

3. To examine the moderating effect of the political stability and economic stability on the relationship between macroeconomic determinants (GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income, and Balance of Payment) and the FDI inflows in Yemen.

4. To investigate the moderating effect of the political stability and economic stability on the relationship between business environment (Corruption Control Index, Labour Cost and Infrastructure) and the FDI inflows in Yemen.

In Chapter Two, literature review was conducted for the purpose of achieving the objectives of the study. It was revealed in the literature related to business environment, political stability, economic stability and macroeconomic that these factors were considered by researchers with reference to foreign direct investment. In fact, as stated earlier, the majority of the previous studies addressed the impact of macroeconomic variables on foreign direct investment and the country's growth. On the other hand, insufficient research has been done on business environment under political and economic situation and foreign direct investment inflows in developing countries, such as Yemen.

In the present study, we argue that when the political situation and economic situation are not stable in the country, they will adversely affect the macroeconomic and business environment. To resolve the inconsistent findings regarding the macroeconomic variables, business environment and FDI inflows
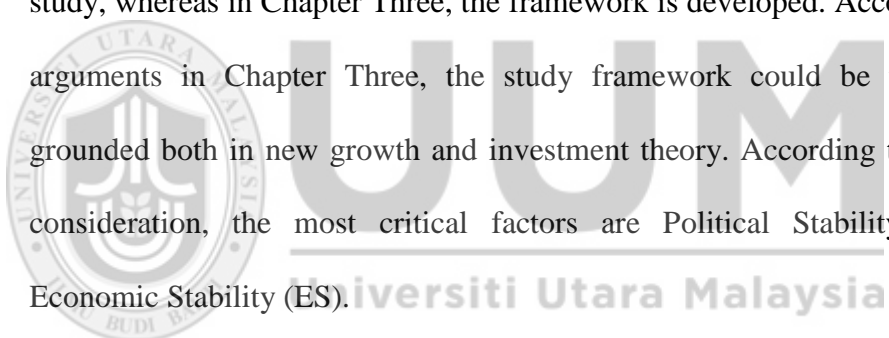
relationship, many researchers asserted that Political Stability (PS) and Economic Stability (ES), that stemmed from the national issues, in most of the developing countries might be one of the main factors that explain the interaction and needs to be further investigated (Burger et al., 2015; Musibah et al., 2015; Molaie & Azad, 2013; Mahmood et al., 2011). This study, in essence, was a response to that call, giving the necessary theoretical underpinning and data analysis, meant to examine the role of Political Stability (PS) and Economic Stability (PS) on the articulated relationships in the context of FDI inflows.

According to the literature review conducted and reported in Chapter Two and Chapter Three, six critical factors of macroeconomic behaviour and three dimensions of business environment have been identified. Specifically, this study recognised some macroeconomic variables including GDP Growth Rate (GDPGR), Degree of Openness (DoP), Exchange Rate (EXR), Inflation Rate (INFR), Gross National Income (GNI), Balance of Payment (BoP).Similarly, Corruption Control Index (CCI), Labour Cost (LBC) and Infrastructure (INFRAS) where the three recognised dimensions of the business environment have been the most commonly traced dimensions in the literature of business environment.

Furthermore, in Chapter Two, many issues were raised indicating the existence of many future research opportunities. Firstly, for instance, the direct effect of macroeconomic variables on the FDI inflows that has been commonly supported by many researchers yet needs to be further examined in different

contexts. Secondly, the inconsistent results regarding the business environment variables and FDI inflows performance relationship call for further examination to achieve the convergence desired. The role of political stability and economic stability in country implementation processes remains inefficiently explored. In the light of new growth theory, firm investment theory in this crucial area of research offers a promising opportunity for in-depth research.

On the basis of the provided discussions and objectives of the study, Chapter One and Chapter Two help in the extraction of variables to be used for this study, whereas in Chapter Three, the framework is developed. According to the arguments in Chapter Three, the study framework could be theoretically grounded both in new growth and investment theory. According to the above consideration, the most critical factors are Political Stability (PS) and Economic Stability (ES).

The present study used time series data from the period ranging from 1985 to 2014. Data was collected from the authentic sources including World Bank Reports, International Monetary Fund, Central Bank of Yemen, UNCTAD, and Finance Ministry Economic Survey of Yemen. After the stationary check, this study performed the hypotheses testing procedures employing hierarchical regression analysis using STATA software package version 12.0. This analysis was used to examine the relationship between the macroeconomic variables and business environment variables and the FDI inflows. This analysis was

also used to examine the moderating effect of political stability and economic stability dimensions on the aforementioned relationships.

5.3 Discussion

The following sub-sections discuss the findings of the study according to the objectives of the study.

5.3.1 Independent Variables (IVs) and FDI

5.3.1.1 Macroeconomic Determinants and FDI

In order to achieve the first objective of this study regarding the effect of GDP growth rate, degree of openness, exchange rate, inflation rate, gross national income and balance of payment on the investment, the regression paths between macroeconomic determinants and foreign direct investment inflows were examined.

Nonetheless, the regression analysis results reported in Table 4.7 in Chapter Four revealed that all macroeconomic determinants were found to be significant predictors of the FDI inflows in Yemen. More specifically, INFRAS(β =976.9, t=5.94, p<0.01),CCI(β =952.8, t=3.63, p<0.01), GDGDR(β =86.68, t= 9.63, p<0.01), LBC(β=7.925, t=2.91, p<0.01), GNI(β =0.0573, t=5.08, p<0.01), have a significant positive impact on FDI inflows at 0.01 levels of significance, and INFR (β =8.783, t=2.88, p<0.05) has a significant positive impact on FDI inflows at 0.05 level of significance, and PS(β=301.7, t= 1.89, p<0.1) has a significant positive impact on FDI inflows at 0.1 level of significance. On the other hand, DoP(β=-2028.5, t=-3.19, p<0.01), ES(β =-

464.7, t= -3.74, p<0.01) and EXR(β=-325.6, t= -3.95, p<0.01) have significant negative impact on FDI inflows at 0.01 level of significance, and BoP(β=-12.90, t=-2.13, p<0.05) has a significant negative impact on FDI inflows at 0.05 level of significance

As illustrated in Table 4.7 in Chapter Four, the positive relationship between, macroeconomic variable of GDPGR with FDI inflows was found to be positively significant at the significance level of 0.01. This finding is consistent with the findings of the previous studies (such as Badr & Ayed, 2015; Hansen, 2014; Mahmoodi & Mahmoodi, 2014; Pradhan & Kelkar, 2014; Martinez-Zarzoso, 2013; Okafor, 2012; Mitze, 2011; Mottaleb & Kalirajan, 2010; Mottaleb, 2007; Fedderke & Romm, 2006; MartAnez-Zarzoso & Nowak-Lehmann, 2004; Uppenberga & Riess, 2004; Birch & Halton, 2001, Cheng & Kwan, 2000; Woodward et al., 2000). In other words, this finding emphasised the positive effect of GDPGR on FDI inflows that has been widely reported in the economic literature. So, if the economic growth of the country is height, the investors will have high confidence to invest in a country because of the low risk of investment, which in turn leads to low cost of doing business and height expected profit for the projects which will encourage foreign capital to inflow into the country.

The GDP Growth Rate of the country is very important to attract FDI into a developing country such as Yemen as the country's consistent GDP growth rate will change the investors mind to invest in it (Martinez-Zarzoso & Nowak-Lehmann, 2004) .Therefore, a high GDP growth rate can help Yemen economy

to attract more foreign investment into the country. Thus, GDPGR plays a pivotal role in stimulating economic growth and enhancing foreign investors' confidence in the economy (Kim, 1993).

Degree of Openness (DoP) is found to be a negative significant predictor of FDI inflows in Yemen at 0.01 level of significance. This result is the opposite of firm investment theory, where multinational firms engaged in export-oriented investments may prefer to invest in a more open economy since increased imperfections that accompany trade protection generally imply higher transaction costs associated with exporting, then the expectation profit will be low which will encourage foreign capital to escape from the country. In Yemen the the relationship between DoP and FDI was negative, Which means lower expected profit because of competition, raising the cost of the face of that competition, which in turn will impact on the price of goods thus expected profit forecast low therefore refrain from investing in this country.

This result is in line with that reported by Al-Shebami et al. (2013), but inconsistent with observations of most previous studies (e.g. Offiong & Atsu, 2014; Zakaria et al., 2014; Cantah et al., 2013; Shapiro, 2011; Majeed & Ahmad, 2009; Baharom et al., 2008; Haile & Assefa, 2006; Majeed & Ahmad, 2006; Binh & Haughton, 2002; Chakrabarti & Scholnick, 2002). Prior studies' mentioned failed to support the effect of degree of openness on FDI inflows as has been widely reported in the business and economic literature and the contention that increasing DoP means that the openness of the economy is important to attract the FDI into the country (Baharom et al., 2008) and vice versa.

In the case of Yemen, imports are more than exports. This implies that in the course of corrective measures of macroeconomic policy to be pursued toward the adjustments in the balance of payments, there will be greater emerging opportunities for foreign investors to invest in Yemen. Yemen often faces problems with foreign reserves. Thus, to augment the foreign reserves, Yemen needs to increase the exports. Yemen can increase her exports through export-led growth strategy and export oriented FDI policy, by inviting the multinational companies to invest in the export zones of the country. This implies that high Degree of Openness (DoP) and investment friendly macro policies and well established infrastructure are major determinants to attract FDI inflows into any country (Awan et al., 2010). Although foreign investors looking to expand markets perceive that in the face of high openness, less limitation and lower trade cost, the market could be serviced in a more effective manner via exports entry as opposed to FDI (Ponce, 2006; Navaretti, Venables & Barry, 2004; Markusen & Maskus, 2002).

Exchange Rate (EXR) has a negative significant correlation with the FDI as revealed by the results of this study, where the causality relationship was supported. In the case of Yemen, the exchange rate appeared to have negative significant sign with FDI inflows. This result is consistent with the study by Al-Shebami et al. (2013) in the context of Yemen who found EXR to be a negative short-run determinant of FDI. But, in some developing countries the exchange rate is positively and significantly related with FDI inflows (Mukhtar et al., 2014).

Justification for a negative impact of exchange rate on FDI can be found in the

irreversibility literature pioneered by Dixit and Pindyck (1984). A foreign direct investment in a country with a high degree of exchange rate will have a riskier stream of profits, all else being equal. As long as this investment is partially irreversible. Given that there are a finite number of potential direct investments; countries with a high degree of currency risk will lose out on FDI to countries with more stable currencies (Foad 2005). By other words, it depends upon various factors, including assumptions about risk attitudes. The most common explanations are the transaction cost, for the negative relationship between exchange rate volatility and trade comes. The cost of converting a currency to other and the risk associated with potential changes in exchange rates have a dampening effect on trade flows. Lot of theories has analyzed the impact response of commercial enterprises to exchange rate uncertainty, by focusing on their degree of risk aversion.

An association between FDI and EXR has been contended. With the devaluation of the country's currency, a chance arises for foreign investors to invest in the country to purchase reasonably cost assets. This is particularly true in the case of foreign firms that have certain potentiality in their targeted markets (Busse, Hefeker & Nelgen, 2013).

The hypothesis of several studies posited a negative relationship between INFR and FDI, because INFR is a significant factor that influences the FDI inflows, in which case, the high INFR indicates instability in the economy and ambiguity related with internal economic stress, and the lack government control, and the inability of the CBY to balance the budget through the money supply. Significant INFR is related with lower FDI inflows and a negative relationship is expected between the two. Investors generally invest in

countries with stable economies as this would reflect a lower possibility of uncertainty, and hence, it is logical to expect that inflation has a tendency to negatively impact FDI but the result in current study revealed a positive significant relationship. This result is in line with Kang and Huang (2012), Srinivasan (2011), Awan et al. (2010), Buckley et al. (2007), Zaman, Hashim, Awan (2006) and Bengoa and Sanchez-Robles (2003). These studies mentioned that higher INFR indicates higher price levels and increased in the production activities of the host country and attraction of investments from foreign firms, which then leads to an increased expected level of profitability.

This study revealed the positive significant link between Gross National Income and FDI – it achieves an increased purchasing power of the citizens of the country and ultimately affects FDI inflows (Musibah et al., 2015). This positive relation converge with the result of Busse (2003) in the context developing countries, where the economic development and competitiveness of the country depend on the country's ability to sustain high growth rates in GNI. Subsequently, it leads to the increase purchasing power of the citizens of the country that affects FDI inflows, which means more goods are produced and this in result will reduce the production costs, which attracts foreign capital to invest in this country to take advantage of the high expected returns.

In this study, Balance of Payment (BoP) is reported to directly affect FDI in Yemen indicating that the role of deficit inflow in the financial and capital account of BoP statement is of utmost importance in reducing the FDI (Devarajan, 2015; Jackson, 2015). Justify BoP deficit by arguing that poorer nations should be importing capital by running a current-account deficit. Providing productive investments are made, this gives a country the extra

166

capital to drive future GDP growth so it can pay the foreigners back. This deficit could also be a sign of a strong, efficient and transparent local economy, in which foreign money finds a safe place for investment. So a deficit could be the result of increased claims by foreign investors, whose money is used to increase local productivity and stimulate the economy.

Overspending Without Enough Income Sometimes governments spend more than they earn, simply due to ill-advised economic planning. Money may be spent on costly imports while local productivity lags behind. Or, it may be deemed a priority for the government to spend on the military rather than economic production. Whatever the reason, a deficit will ensue if credits and debits do not balance.

BoP results in the inefficacy of a nation to pay for essential imports and/or to service its debt repayments. Typically, this causes a rapid decrease in the value of currency related to the nation affected. Large capital inflows are generally followed by crises, which are directly related with the rapid economic growth. In effect, the foreign investors show their concern about the debt level generated by their inbound capital and makes a decision to withdraw their funds.

In Yemen, BoP's negative impact on FDI stems from decreased BoP. The CBY on 10th Jan 2015 released a report, which states that the level of earning of Yemeni Government from oil sales is at its lowest. Based on the report, the government of Yemen has raked $1.5 Bn because of oil sales in the period of January to November, 2014 which shows $892 Mn decrease if compared with the same period of the previous year.

167

5.3.1.2 Business Environment Determinants and FDI

In order to realise the second objective of the present study regarding the effect of business environment on the investment, the relationship between business environment and foreign direct investment inflows was examined. The regression analysis results reported in Table 4.9 in Chapter Four revealed that the three business environment variables (i.e. corruption control index, labour cost and infrastructure) were found to be significant in the case of the FDI inflows in Yemen.

Specifically, Corruption Control Index (CCI), CCI (β= 952.8, t=3.63, p<0.01) has a positive impact on FDI inflows at the 0.01 level of significance in Yemen. Based on firm investment theory control of corruption has positive effects on the levels of both foreign and domestic investment. Investors will ultimately prefer environments where control of corruption is high because it decreases the cost of doing business and raises profit forecast. Control of corruption is also often associated with a high degree of certainty, something that always attracts investors to invest in the country.

The finding that supports the effect of Corruption Control Index (CCI) on FDI inflows as has been widely reported in the economic literature. As such, in public administration, good governance like corruption control is very important to attracting FDI into a developing country, such as Yemen (US Department of State, 2014). Corruption-less society tends to grow faster economically. In the case of Yemen, Corruption Control Index (CCI) is very important for its growth. According to the report by the US Department of

State (2014), the overall business-enabling climate presents a number of challenges. Corruption and bribery are common, and some Yemeni officials view foreign investment as an opportunity to seek out personal profit. Navigating the inner workings of competing centres of authority within the government may require a competent local partner – a contention in line with the study by Haksoon (2010) where he found that countries with a high level of control corruption have higher FDI inflows. Yemen's public administration requires relationship and reforms to capture the attributes of good governance.

Unlike most previous studies, this study found the Labour Cost (LBC) was a positive significant with FDI in case of Yemen - this is in harmony with the study by (Lan & Yen, 2009) in China.

Labour costs might be an important factor in deciding FDI especially for some labour-intensive manufacturing industries. Developing countries such as Yemen, usually have an abundant supply of labour and thus can offer low labour costs to the investors but investors care about other things as well, not just the labour costs. When considering factors related to labour market, investors care about the availability of skills, education levels and productivity levels rather than just labour costs (World Bank, 2014; OECD, 1996). Improve rights to workers can give them a sense of fair treatment at work which can improve worker-employer relationship and creates a socially stable atmosphere at work. This can also have a positive impact on workers' motivation, productivity and quality of work, and decrease the labour risk, which lead to high profit expectation.

For the purpose of operation of sophisticated technology, the FDI often seeks skilled labour and therefore, in case of Yemen, FDI is more sensitive to labour quality than labour cost if compared to more technologically advanced nations

Moreover, in the context of Yemen, there is a positive relationship between Infrastructure (INFRAS) and FDI, where, in developing countries, the INFRAS poses a significant attractiveness for FDI inflows (Khadaroo & Seetanah, 2010; Asiedu, 2006). This result is consistent with Al-Shebami's et al. (2013) study, which shows an empirical assessment of the factors of INFRAS that plays an important role in influencing the inflows of FDI. A positive relationship between FDI inflow and INFRAS was found. The poor condition of INFRAS is the main challenge for policy makers of Yemen. There is a widespread shortage of energy which takes heavy toll on productivity, competitiveness of exports and on the quality of life for most of the households.

Similarly, in terms of communication network and transportation infrastructure, Yemen is considered unfavourable if compared with its neighbours in the Middle East. Roads are in poor condition, though, there are several plans for the upgrading the system. Rail network is not available, the effort of upgrading the facilities of airport is languished and the use and capabilities of both internet and telephone are limited. From the 2002 terrorist attack, a promising recovery is seen in Port Aden and in the period from 2004 to 2005, there is a significant increase in the throughput of container. However, the future throughput will be decreased because of the expected implementation of higher insurance premium for shippers (US Department of State, 2009). The fighting in the last four years of political conflict has destroyed schools, infrastructure, government buildings, universities and others

(Europa.eu, 2015). In short, to attract FDI in Yemen, the development of infrastructure is considered the key determinant.

5.3.1.3 The Relationship between Political Stability and FDI

For the achievement of this study's objective related to the influence of political stability on the inflows of FDI in Yemen, the regression analysis between FDI and political stability were examined. This study found that political stability (PS) (β =301.7, t=1.89, p<0.1) tend to have significant positive impact on the FDI inflows at the 0.01 level of significance. In line with the investment theory of firm, it follows that political instability and corruption causes increased cost of doing business in a developing country, such as Yemen (US Department of State, 2014).

Incidentally, Hanna et al. (2014) traced significant effects of political stability on the level of economic growth and investment. Some studies like Li and Resnick (2003) observed that PS insignificant effect FDI inflows.

In the case of Yemen, however, political stability for country's growth is an important factor. Similar to other states in the region, Yemen has always been in a state of crises, specifically from the 1990s until now, because of the continuous competition between ruling state authority and different clans, secessionists, tribal groups and transnational movements. Aside from these conflicts, regional players, for their own interests, have made their efforts to exploit domestic instability. This intervention from outsiders is the basic reason of conflicts in Yemen (Richard, 2015). Historically, the reason of conflicts in Yemen clans, tribes, Sunni and Zaydi communities and the recent was the most known offshoot of Shi'i' Islam in Yemen (Stephen, 2012). Since the end of the

171

Zaydi Imamate in the 1960s, the Zaydis of the north were politically and socioeconomically marginalised by the republican regime, and this marginalization led Houthis dissent to those who are Zaydi (Salmoni, Loidolt, & Wells, 2010), The latest research done by Musibah et al (2015) revealed that political stability, macroeconomic stability and attractive policy are influencing factors that increase FDI inflows in the country. Lower private investment in Yemen may be attributed mainly to the political instability (IFPRI, 2014). The present study virtually substantiates these points through empirical findings.

5.3.1.4 The Relationship between Economic Stability and FDI

For the achievement of study's objective related to the influence of economic stability on the inflows of FDI in Yemen, the regression analysis between FDI and economic stability were examined. Our findings show that the economic stability (ES) (β =-464.7, t=-3.74, p<0.01) tend to have significant negative impact of the FDI inflows at the 0.01 level of significance. This result is in line with the study of Molaie and Azad (2013) in least developed countries. This negative impact refers to low total reserve including gold, low exports of goods and services and high imports of Yemen (IMF, 2014), primarily owing to shifts and decrease in global oil prices (Devarajan, 2015). Oil represents the biggest part of Yemeni exports about 90 percent of export earnings and income from oil production constitutes 70 to 75 percent of the government revenue (FAO, 2014). In addition, the increase in imports can be attributed to the import of arms to Yemen to quell the revolt in the country (Mundi, 2012; ACA, 2011).

Explanation regarding the results may be that firms have acquired skills and knowledge in how to manage operations in low economic stability countries in

long term. There may also be other pulling factors that are relatively more important than low economic stability,such as growth gross domestic product, exchange rate,infrastructure, political stability making it more difficult for firms to justify their keeping out from profitable markets.

5.4 The Moderating Effect

5.4.1 The Moderating Effect of Political Stability

Focusing on the third objective of the study related to the political stability's (PS) moderating role on the relationship between macroeconomic variables and FDI inflows in Yemen, interaction terms between moderating political stability and macroeconomic variables were specifically examined. As reported in Chapter Four, Table 4.9, the interaction term between macroeconomic variable of GDP growth rate was found to be positive and significant at the 0.01 level of significance (β =99.25, t= 3.74, p<0.01). The results presented in Table 4.9 showed that high GDP growth rate leads to higher foreign direct investment inflows when political situation of the country is higher. That means that GDP growth rate of the country is dependent on political situation of the country. It follows that the moderating role of political stability is well established in the case of Yemen. Based on the investment theory of firm, the risk premium causes increased cost of doing business.

For the political stability's (PS) moderating role between FDI inflows and business environment in Yemen, the regression result for interaction term between political stability and business environment was examined. The moderating effect on business environment can be seen clearly but the role of

political stability on the relationship between CCI and FDI gives better insights as illustrated in Table 4.9.

The results concluded from Table 4.9 indicate that low CCI leads to high foreign direct investment inflows when political situation of the country is lower. That means that CCI of the country is dependent on its political situation. It follows that the moderating role of political stability is well established in the case of Yemen. Political stability provides the time for reputations to build and relationships to form across the public-private border in which both sides can have confidence. Thus, while increasing the potential loss if bureaucrats are fired, political stability might actually increase the expected returns to corruption. where lead to to the accretion of interest groups with ties to officials. This is supported by the investment theory of firm positing that the risk premium such as corruption causes increased cost of doing business. Investors will ultimately avoid environments where corruption is rampant because it increases the cost of doing business and undermines the rule of law. Corruption is also often associated with a high degree of uncertainty, something that always drives investors away and vice versa.

5.4.2 The Moderating Effect of Economic Stability

Focusing on the third objective of the study related to the Economic stability's (ES) moderating role on the relationship between macroeconomic variables and FDI inflows in Yemen, interaction terms between Economic stability and macroeconomic variables were specifically examined. As reported in Chapter Four, Table 4.9, the interaction term between macroeconomic variable of GDP growth rate was found to be positive and significant at the 0.01 level of

significance (β=121.1, t=3.49, p<0.01). The result shows that the GDP growth rate leads to higher foreign direct investment inflows when economic situation of the country is higher. This indicates that GDP growth rate of the country is highly dependent on its economic situation. It follows that the moderating role of economic stability is well established in the case of Yemen as supported by the investment theory of firm positing that risk premium causes increased cost of doing business.

In terms of GNI, the result presented in Table 4.9 showed the negative significant impact of GNI at the 0.1 level of significance (β=-0.0950, t=-1.93, p<0.1). This means that low GNI leads to higher foreign direct investment inflows when economic situation of the country is lower. It follows that the moderating role of economic stability is well established in the case of Yemen. Explanation regarding the results may be that firms have acquired skills and knowledge in how to manage operations in low economic stability countries in long term even with low national income which making it more difficult for firms to justify their keeping out from this country, as not supported by the investment theory of firm. The theory posits that risk premium causes increased cost of doing business.

5.5 Contributions of the Study

In this study, different issues were focused and significant insight was provided to the FDI in Yemen. In developing countries, this study has been considered among the studies in finding out the influence of business environment and macroeconomic variables on the FDI inflows. In addition, this study attempts to expand the boundary of the current literature as it investigated the

moderating effect of the political stability on the relationship of macroeconomic variables and business environments and the FDI inflows by using the hierarchical regression analysis. By integrating the effect of macroeconomic factors, business environment, political stability, the present study can claim significant relevant contributions to the literature besides entailing pragmatic suggestions for the considerations of the policy makers as well. The gist of the contributions of this study is presented in the following sub-sections.

5.5.1 Contribution to Literature

As discussed in Chapter One, this study contributes in several dimensions and as narrated below: First, considering the theoretical perspective, the importance of political stability and economic stability of the country is demonstrated from foreign and domestic investor's points of view. Furthermore, this study examined the relationship between FDI and macroeconomic variables and business invironment variables and thus contributes to the macroeconomic literature.

In particular, the glaring disagreements in the literature regarding the impact of macroeconomic variables such as GDP growth rate, degree of openness, gross national income, balance of payment, exchange rate and inflation rate on foreign direct investment called for further in-depth investigation under the present study. This study, thus, significantly contributes to the existing literature by integrating the effect of macroeconomic variables to the FDI inflows in the growth process of a developing economy of Yemen. It is

176

observed that the macroeconomic variables such as GDPGR, DoP, EXR, INFR, GNI and BoP significantly impacted the FDI inflows in Yemen.

Second, in Yemen, a developing nation, the significance of business environment situation for FDI is highlighted in the study. In addition, this study contributes to the management and economic literature by examining the impact of infrastructure and corruption control and cheap labour phenomenon on the foreign direct investment inflows. A review of the literature concerning this relationship revealed that the empirical results were inconsistent. Notwithstanding the extensive research work in the literature that examined the infrastructure and corruption control and FDI inflows, there has been glaring disagreements. Due to these inconclusive results, many academics and practitioners have questioned the appropriateness of examining business environment such as infrastructure and corruption control and cheap labour control that may impact the foreign direct investment inflows in to the country.

Third, in the results of this study, the joint effect of business environment and macroeconomic was found significantly stronger than otherwise. Additionally, the results of this study show that more FDI will be attracted to the developing countries if macroeconomic stability and business environment are maintained. This was clear from the GDP Growth Rate, Inflation Rate, Gross National Income, Corruption Control Index, Infrastructure and political stability's positive sign as influencing determinants of FDI. Besides, in order to compare the effects of macroeconomic and business environment, they were tested

individually – in this manner the effects of their dimensions on investment suitable policy orientation are highlighted.

Fourth, the role of political stability in FDI inflows was focused on in this study. This study's results show that the focus on political stability is a crucial step for the attraction of FDI to the country. The lack of country's political stability condition may lead to its unsuccessful economic growth. This result is supported by both the investment theory and growth theory that consider it among the change initiatives that change the investment activity. Specifically, when investment growth from domestic saving is low, the gap should be filled up with foreign direct investment.

Fifth, the important role of economic stability in FDI inflows was focused in the study. If the purpose is to attract FDI to the country, then economic stability should be maintained, otherwise this may lead to unsuccessful economic growth of the country. This result is supported by both the Investment Theory and Growth Theory that considered it as a change initiative aiming to change the investment activity - whereby when investment growth from domestic saving is low, the gap should be filled with foreign direct investment.

Sixth, this study focused on the inflows of FDI and its relationship with Exchange rate, Gross National Income, Inflation Rate, GDP Growth rate, Balance of Payment and Degree of Openness and as such, it contributed to the current literature related to business like political stability, corruption, infrastructural control and control index, and their impact on the Yemeni economic growth.

Moreover, the study attempted to provide empirical insights into the political stability of Yemen that are very important in enhancing the foreign capital and domestic investment into the country.

Finally, this study, for the validation of the model, conducted a rigorous goodness of fit with sound analysis. To meet the research methodology criterion, the research instrument was rigorously validated in this study for the purpose of getting valid and reliable results since poorly validated measures will result in erroneous conclusions.

5.5.2 Practical Contribution

For the policy makers and practitioners, this study provides important contribution and policy implications. This study provides insight on how macroeconomic factors, business environment, political stability and economic stability can help in the enhancement of overall FDI to the country. Some of the contributions are enumerated as follows:

Firstly, because of this study, awareness will be made among the government officials and policy makers of Yemen to bring more FDI to the country. Moreover, the results also highlighted that improved and lucrative business environments form one of the main attractions of FDIs. Taking the guide from these findings, the policy makers of Yemeni should make effective plans to enhance business opportunities in the country. A specific set of short term and long term rolling FDI plans may be spelt out referring to policies, opportunities, approaches and incentives that are needed to attract FDI inflows.

Secondly, other important macroeconomic factors were highlighted in the study. The results of this study demonstrated by the firm investement theory,

179

political stability in the country can facilitate the change initiatives of macroeconomic and business environment.

Therefore, policy makers can ensure the success of macroeconomic and business environment through the establishment of supportive political. In other words, the finding of this study suggests that policy makers and politicians and economists in Yemen should vigorously seek to improve and maintain its Political Stability (PS).

Thirdly, from the result of negative relation between DoP and FDI; to encourage more openness in trade with ensuring security and political stability, it was suggested in the results of the study that several economic zones must be established by the government of Yemen in order to ensure attractive packages for FDI like the adoption of low tax strategy and construction of good infrastructure having high security for the property and life of foreign investors.

The government should also enact new laws to protect the foreign investment activity constitutionally. The change of political situation in the country should never affect the foreign investment company's law. FDI economic zone areas should provide the facilities comparable to developed countries.

Fourthly For more political stability must be the policy makers in Yemen coordination with other developing neighbouring countries like the Horn of Africa countries and GCC countries in the field of cooperation in the fight against terrorism and crime to increase the political stability.

Policy makers should invite multinational companies to invest in Yemen with confidence under the given full government support and creation of conducive

business environment. In short, Yemeni policy-makers should endeavour to establish a more friendly and reliable business environment in the country and handle issues related to development with the help of provision of investment space in different economic sectors of the Gulf, Arab and other foreign countries for the purpose of making the integration of Yemen with the GCC as such countries have high political stability and economic stability.

Fifthly, the findings of this study confirmed that political stability positively moderates macroeconomic variables, such as GDP growth rate relationship with FDI inflows. It follows that GDP growth rate is a crucial factor to a developing country such as Yemen to attract the foreign capital. This suggests that the Yemeni policy-makers should develop a good business environment, and reassess market-friendly and growth-oriented economic policy to be in good alignment and consistent with the cultural values of the country.

As a result of the weakness of the balance of payments of the country and its negative impact on foreign investment, the government of Yemen should also expediently construct the area of economic zone with full security and support to facilitate investment activity in industrial arena, to reinforce the fact that Yemen is a regional and international business hub having worldwide accessibility due to its strategic location between Asia, Europe and Africa. The country's well equipped Port of Aden, Free Zone and half dozen other ports on its 2,200 km coast are globally connected to the busiest shipping lanes. In fact, the Yemeni international waters provide passage to the half of the world's cargo traffic. There are also six international airports which handle the air travel network that spans the globe. A temperate climate year round is

guaranteed by the geographical position of the country which is considered ideal for both leisure and business activities.

Sixthly, Because the cost of labour do not constitute an element to attract foreign investors, the quality of labour or human capital is considered the main advantage. FDI provides advance technology to the host country which needs expert personnel in order to achieve maximum efficiency. Workers having quality of education are easy to train as foreign investors prefer highly educated workers.

Seventhly, Yemen is considered among the pioneers of exporting labour to the remaining world. The migrants and expatriates of Yemen have broad and tangible contribution around the world, which make them successful businessmen. And many businessmen in Southeast Asia, especially Indonesia, Malaysia and Brunei and East Africa, Comoros, Kenya, Tanzania and the Arab Gulf express their relation with Hadramout (the largest part of Yemen) (Sultan, Weir & Park, 2010; Jacobsen, 2009; Levtzion and Pouwels, R. (Eds.), 2000).

Therefore, the policy makers must exert increasing effort in using this sector and must review it positively in order to create better interaction with development and all investment sectors and to overcome the weakness in openness of the country. This can be done with the help of remittances and investment in the country by providing suitable business environment for more investments in the country which in turn raises the national income and national output and enhances the local currency.

Finally, this study is also of a great value to other developing countries as well as for policy-makers and academia.

As it is the case of research work, the following sub-section discusses the policy-making contribution of this study.

5.6 Policy Implications

If the policies related to FDI are appropriately developed, it will benefit the country in the upcoming years.

The shift from macroeconomic policy towards economic development instead of just growth accumulation is facilitated by the inflows of FDI and the induced policy. The flow of investment is considered important for political stability and economic stability and integration along with human fairness and dignity in the enhancement of harmonious relationship among the people of Yemen.

Unlike, big neighbouring countries such as GCC, in a country such as Yemen the issues of trade liberalisation and degree of openness can deem to be a real starter not just an academic exercise in her policy strategies. In order to attract foreign capital into the country on a large scale, interest rate in the financial sector of Yemen should be globally competitive.

Gross national income has a positive effect on the flow of foreign investments to Yemen, so the government must improve this factor especially it influenced by a decrease of the country's economic stability, through attention to natural resource, where Yemen has a reserve of natural resources, in the form of oil, gas etc can easily increases the size of national income and vice versa, also the

factors of production are land, labour, capital and organization. If these factors are available in larger quantity, then the size of national income increases, If advance technology and latest equipment used in the process of production, then more goods can produced, the technical know-how then the size of national income increase, which in turn will encourage foreign investors to come to this country, depending on its high national income

The empirical evidence suggests that FDI inflows are influenced to a large extent by the stability of a country's exchange rate and political climate. To enhance more FDI flows into Yemen, the authorities need to ensure the stability of exchange rate and the political environment. Thus, Yemen should continue its program of economic reforms to stabilize its exchange rate. It is recommended that the government formulate policies advocating for the stabilization of exchange rate and establishing favorable political conditions to attract more FDIs to the country.

Using the revealed openness, the study concludes that, the use of traditional measure of openness does not present a clear picture of whether the economy is open or not. The study finds that the degree of openness is negatively related to FDI flow in Yemen. The implication of this finding is that, for country to attract foreign direct investment, the policy framework on openness should be geared toward a more opened economy in terms of policy. If this is done, the economy would be able to attract more FDI inflows into the region. This creates an enabling environment for global interaction which benefits the source of FDI into the region.

Another practical implication is that economic reforms need to consider the instability of inflation rate. Based on this study' result, the high inflation in Yemen appears to attract foreign investment . This can be justified as the higher inflation risk in Yemen enhances the purchasing power of the investors in foreign currency terms, and this attracts foreign investors to invest in Yemen.

Balance of Payment situation, fiscal situation and foreign exchange reserves of Yemen have not been very good over the years. Foreign investment is discouraged with no macro balancing and un-conducive macroeconomic environment for business ventures into the country. Certain measures are needed in the country for the fiscal deficit reduction and to raise the trade surplus and reserves for foreign exchange.

Control of corruption lead to increase FDI, but when it is low with low political stability, it increases foreign capital to come to yemen, in view of the presence of a suitable environment and the power of many parties in the government and the authority to make deals and alliances and breakthrough of the law and the absence of state authority or have decreased. But if the state settled politically with low control corruption, this will frustrate investors to come to this country because of the presence of the force of law. So the decision makers to take several mechanisms to reduce or eliminate corruption such as Creating transparency and openness in government spending, establishing international conventions, deploying smart technology, rule of law will be on the top priority in the country, judicial reforms i.e. appointment of more judges and establishment of special courts for investment issues and new courts on emergency basis in the country to speed up the judicial process and creation of

monitoring and inspection department in the judiciary to monitor and eliminate the ever increasing corruption,the land record system must be immediately computerized in whole of the country to reduce the chances of corruption and changing in the record of land.

A positive relationship as wage rate could be regards as a signal for the labour quality. Higher wage rate may indicate the higher skill labours that foreign investors seek. This indicates that FDI aim at high quality labour rather than the specific cheap labour cost in Yemen. especially that the foreign investment in Yemen and exports depends on the gas and oil industry, which requires high skills, therefor the policy makers and government of Yemen should train human resource to strengthen its capabilities and capacities. Moreover, human resource development should introduce proper manpower planning and vigorous training programs.

Policy makers should promote the exports of the country's products. The present study also suggests that higher GDP growth rate is important for Yemen.

Instability of the Yemeni economy does not constitute important for the foreign investors, Instability of the Yemeni economy does not constitute important for the foreign investor. where, the low economic stability leads to increased on investment returns especially if combined with national income . Ensuring economic stability leads to boast in investor confidence in economy of Yemen. Ones investors perceive the economy to be stable; FDI will flow into the country, therefore the decision-makers in Yemen must seriously consider this factor

Despite the positive impact of infrastructure on forgien investment in Yemen, However, it is necessary focus on the field of education and infrastructure will make Yemen at par with the developing economies of MENA countries. Specifically, policy makers should immediately suggest to the government of Yemen to solve the problem of energy crisis in the country. Alternative modern and potential sources of energy should be detected and exploited.

To reduce the costs of setting up the business and provide a high profit margin for investors, the government must focus on the reduction of exorbitant tax rate and unnecessary taxes for the modernisation of tax administration and simplification of tax policy. A high level tax reformation committee should be appointed to suggest the necessary actions on this front. In short, Yemeni policy-makers should provide investment friendly business and economic environment.

Also, the national security of Yemen is of utmost importance. The issues related to national security keeps on changing. It should be noted that industries such as electric power, transportation, and communication have long been shaping the FDI polices in developing countries including Yemen. Generally speaking, in the Middle East and North African region (MENA), with the inclusion of Yemen, both political and social upheavals followed the "Arab Spring" in 2011, regardless of political changes and the expectations for economic freedom.

Guardian News Paper, published in 2012, states that in the world, the highest gun ownership rate is in US – on average 88 people out of 100 have guns.

Yemen is considered second after US in gun ownership but have significantly lower gun owners at an average of 54.8 people out of 100.

The above aspects are where the significance of social stability and security factors of the investment process arises, and its role in attracting FDI, enhancing polarisation power, stabilising transactions, supporting competitiveness, providing transparency, enhancing foreign competition, and increasing the state resources from the proceeds of economic activity. These could lead to maximised capital flows and foreign investment and extend the scope of direct domestic investment while boosting investor's confidence to enter into the production and business.

Moreover, violence and corruption help in the establishment of monopolies, facilitate to control the local institutions and market function and also distort allocation of resources and a portion of public expenditure is acquired (CPI, 2008). The capabilities of market and institutions are compromised this way and as a result the development of local economies is regressed (Centorrino & Signorino, 1993).

Furthermore, existence of crime incurs economic and social costs – for instance, domestic and foreign investment is often discouraged by them and high crime rates have a tendency to negatively impact the capacity of the region to attract FDI (Daniele & Marani, 2011; Basile, 2001).

Following a list of the above suggestions, the next sub-section explains the limitations of the present study.

5.7 Limitations of the Study

The studies related to economic and business studies usually have many limitations and this study is no exception. In this study, specific limitations are listed as:

Since sample size is the main root of the problems, it is highly recommended that next researchers who are interested in further studying this paper should increase the sample size. Researchers may use monthly, quarterly or semiannual data instead of using annual data. This is because the bigger the sample size, the lower the probability of having multicollinearity, heteroscedasticity and autocorrelation problems. Hypothesis testing will provides researchers with better results in detecting the heteroscedasticity and autocorrelation problems. And it will be made clear to researchers the severity of the problems, allowing them to carry out the appropriate steps and solutions in solving the problems for the best result.

This study, in different analytical stages, has faced problem in data collection from different reporting agencies. A specific problem is found in the comparison and finding of data from different sources. The time series, used for different averages and variables, has no homogeneity and accuracy to some extent.

Specifically, the imitations of studies regarding the time series data related to doing business, investor protection, investor confidence, starting business and other determinants in that it is only available for the last few years.

There are no reporting agencies in Yemen on several such issues. Statements that FDI has been the only source for development in the Yemen economy in

189

the post liberalised period can be a debatable issue. However, no proper methods were available to isolate the effect of FDI to support the validity of this statement.

This study looks at Yemen as a developing country in a macro sense only. Any consideration of a particular industry or multinational firm or product group in Yemen economy at micro level is out of the purview of the present study. Also, there is restriction on the type of the FDI or the multinational companies covered in this study and the very inflow of direct investment is considered in a broad sense in its context. It refers to the business scope, nature, activity or function of the multinational companies doing their business in Yemen in aggregate terms.

Above all, the study is solely confined to secondary data. As such, it is more in the nature of conceptual exploration and empirical measurements and its data analyses are based on the information collected from the reports and authentic publications referring to macro variables and related issues. Apparently, any analyses of micro variables have remained out of the purview of the present study.

In short, the study is limited to the country's macroeconomic behaviour instead of business and entrepreneurial behaviour of the companies present.

5.8 Directions for Future Research

The present study ensures the significant analysis of the relationship between business environment and macroeconomic variables with FDI. Moreover, in this study, the moderating effect of economic stability and political stability on

190

business environment and macroeconomic variables with FDI inflows in Yemen are focused on.

This study used secondary data which collected from several sources, for best results the future resesch can use other data sources such as the questionnaire or interviews with foreign investors, So researcher found that very difficult to take place because of the political situation in Yemen.

There is a need to include other variables, which are not included in this study, due to lack of data availability, for example, variables such as investor confidence, investor protection variables and the cost of doing business, and related variables need to be investigated for further studies to trace their daunting economic effects and impact on the decision of the foreign direct investor. By and large, the missing link in the present study can inspire further in-depth and extended study on the issues of FDI and economic growth of Yemen in the future course of direction. The issues of political stability related problems in Yemen can also be probed by the researchers in the gamut of public administration. The role of political stability and economic stability and FDI may further be investigated in the contexts of the developing MENA nations.

5.9 Concluding Remarks

This study is among the first to analyse the influence of business environment and macroeconomic variables on inflows of FDI using the context of political stability's moderating role from the data of time period from1985 to 2014 in Yemen. In this study, the FDI inflows related historical scenario is reviewed in Yemen. In the context of such a developing economy, this study makes

191

substantial contribution to the current literature of FDI inflows, macroeconomic variables and business environment. In order to attract more investment into the country, it is suggested in the study that the government and policy makers of Yemen must revamp their policies related to FDI. On FDI, the political stability's moderating effect is empirically examined in this study with the help of hierarchal regression analysis.

The present study's main finding is that the impact of political stability on FDI inflows in to Yemen. The study empirically traced that macroeconomic variables including GDP Growth Rate, Degree of Openness, Exchange Rate, Inflation Rate, Gross National Income and Balance of Payment and business environment variables such as Corruption Control Index, Labour Cost and Infrastructure variables and the moderating role of political stability effectuated the FDI inflows in Yemen. Specifically, the study traced that over the years, variables, namely GDP growth rate, inflation rate, gross national income, corruption control index, labour cost, infrastructure variables and political stability indices produced positive and significant effect on the FDI inflows in Yemen.

The moderating role of political stability and economic stability interaction terms with GDPGR is positive and significant with FDI inflows in Yemen. The study highlights the importance of GDP growth rate in Yemen to attract the FDI inflows.

The study also concludes that CCI is very important to be considered to tackle decreased foreign direct investment inflows into the country. The study

192

suggests that Yemen policy makers need to draw a proper investment policy to attract the foreign investors in the country.

The interaction between GNI and FDI was found to be negative and significant, indicating that lesser GNI leads to higher foreign direct investment inflows when economic situation of the country is lower. It follows that the moderating role of economic stability is well established in the case of Yemen.

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214

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