SITUATION OF FDI AND BIPPA

AND IT'S CONTRIBUTION IN ECONOMIC GROWTH OF NEPAL

WITH ECONOMETRIC ANALYSIS

A Thesis

Submitted to

The Faculty of Humanities and Social Sciences

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In Economics

Submitted by

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March, 2021

DECLARATION

I hereby declare that this Dissertation entitled **"Situation of FDI and BIPPA and it's Contribution in Economic Growth of Nepal with Econometric Analysis"** submitted to the Central Department of Economics, Tribhuvan University (TU), is entirely my independent work prepared under the supervision of my supervisor. I have made the acknowledgement to all ideas and information borrowed from different sources in the course of writing this thesis. The result of this thesis have not been presented or submitted anywhere else for the award of any degree or for any other purpose. No part of the contents of this thesis has ever been published in any form before. I shall be solely responsible if any evidence is found against my declaration.

_____

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RECOMMENDATION LETTER

The thesis entitled **"Situation of FDI and BIPPA and it's Contribution in Economic Growth of Nepal with Econometric Analysis"** prepared by Ms. Bimala Pokharel is recommended for final/external examination as a partial fulfillment of requirements for the degree of MASTER OF PHILOSOPHY in ECONOMICS.

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VIVA-VOCE SHEET

We have conducted the viva-voce examination of the thesis entitled **"Situation of FDI and BIPPA and it's Contribution in Economic Growth of Nepal with Econometric Analysis"** submitted by Bimala Pokharel in partial fulfillment of the requirements for the degree of MASTER OF PHILOSOPHY in ECONOMICS. We found this thesis satisfactory in scope and quality and written according to the prescribed format. Therefore, we accept it for the degree of M.Phil. in Economics.

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Bimala Pokharel

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Abbreviations

N : North
E : East
GDP : Gross Domestic Product
US : United States
A.D. : Anno Domini (Gregorian calendars
GoN : Government of Nepal
FDI : Foreign Direct Investment
BIPPA :Bilateral Investment Promotion and Protection Agreement
i.e., : That is
UK : United Kingdom
$/ USD : United States Dollar
USA : United States of America
PPP : Purchasing Power Parity
SAP :Structural Adjustment Program
IMF : International Monetary Fund
ESAP :Enhanced Structural Adjustment Program
WTO :World Trade Organization
B.S. :Bikram Sambat (Nepali Calendar)
NPR :Nepali Rupees
SEZ :Special Economic Zone
MW :Mega Watt
DOI : Department of Industries
SWOT:Strength, weakness, opportunities and threats
UNCTAD: United Nations Conference on Trade and Development
NRN : Non-resident Nepali
MOF : Ministry of Finance
FY : Fiscal Year
sq. km : Square Kilometer
UTL : United Telecom Limited
NTC : Nepal Telecom
OLS : Ordinary Least Square
VECM:Vector Error Correction Model
LN : Log Natural
p value: Probability Value

Chapter-I
Introduction

1.1 Background of the Study

Nepal lies between two big countries of Asia - India and China on the southern slope of Himalayas. It covers 0.03 percent of the total area of the earth and 0.3 percent of the total area of Asia continent. The location of Nepal is 26º 22´ N to 30 º 27´ N in latitude and 80 º4´E to 88 º12´ E in longitude and its length is 885 km (east to west). Whereas mean Width is 193 km (north to south) covering 1, 47,181 sq.km. area.

The country is divided administratively into 7 provinces and 77 districts. It has 753 local units. Geographically it is divided into three ecological regions – Mountains, Hills and Terai.

Federal Democratic Republic of Nepal is a beautiful land-linked country. There is not easy access to the ocean. This hinders Nepal's economic development with the huge transportation cost. Therefore, the role of industrialization is very important. For the country to be developed, industrial development is the main key. But majority of Nepali people are helplessly depending upon the subsistence agriculture.

1.2 Economy of Nepal and Neighboring Countries

In the composition of Gross Domestic Product (GDP) of Nepal; primary, secondary and tertiary sector have contributed 28.2 percent, 13.7 percent and 58.1 percent respectively by the year 2019/20 (preliminary assumption). At the same time contribution of those sectors in China is 7.11 percent,

38.97 percent and 53.92 percent respectively. And sectorial contribution in GDP of India is 15.96 percent, 24.88 percent and 49.88 percent respectively.

China has made much progress since it first opened to the outside world in 1978 A.D. China is striving to develop along similar lines and transform from an export-capital investments-driven economy into one based on domestic consumption and services. According to the World Bank, China's GDP in 2019 was 2nd largest in the world on current US dollar basis ($14.280 trillion). Similarly, India's GDP in 2019 was 5th largest in the world on current US dollar basis ($2.869 trillion). (https://data.worldbank.org/). Nepal's neighboring economies India and China are rising as the emerging economies.

1.3 Statement of the Problem

In the present highly competitive globalized world, there is a great challenge for Nepal to increase exports due to the qualitative production of developed countries. The trade gap is so high that trade deficit is measured about more than one Trillion Rupees and exports share to total trade is 7.55 percent only at the Fiscal Year 2019/020 (preliminary value).

Although the structural reform introduced in 1985/86 in Nepal responded positively to the manufacturing sector, it could not affect positively in the long run. The investment in Nepali industries is not much attracted. Economic theory suggests that a proper mix of labour and capital is essential to effectively carry out production but the low domestic saving rate, standing at 18.1 (Economic Survey 2019/20) percent of GDP suggests that Nepal, alone, may not possess the ability to build up enough capital to

devise realistic strategies to achieve its development targets. While the country holds immense potential as an industrial development as the increased income level, hydropower developing country, as a religious, cultural, and adventurous tourism destination, as a breeding ground for information technology experts, or even as a regional hub for world-class education services, current trends do not provide evidence to guarantee efficient utilization of resources.

Due to the relatively safe political environment, Nepal can easily offset its low domestic capital formation rate by allowing the participation of foreign entities in the markets as foreign investments. Investments are not possible without an encouraging environment. So, it is of utmost importance that the GoN clearly communicate its intentions to welcome and encourage private investments from within and without its boarders by providing an unambiguous picture of the terms and conditions, incentives, privileges, guarantees, and restrictions.

Development aid cannot transform a post-conflict economy, and it is here that Foreign Direct Investment (FDI) can be an effective technique for revitalizing industries and rebuilding infrastructure. There is strong empirical evidence that FDI flows are less volatile than other capital flows and a widespread impression that FDI is somehow better for growth and development than other capital flows. Uncertainty of aid flow has urged Nepal either move towards export-oriented economy or to open its economy for heavier/more FDI. But we have huge resource gap so we alone cannot run the large manufacturing industries in order to increase exports.

This evidence proves the necessity of the FDI in the economy. One of the measures for the economic prosperity is 'attracting the FDI through Bilateral Investment Promotion and Protection Agreement (BIPPA)'.

1.4 Research Questions:

The following are the research questions that provoked for this research:

i. What are the factors to boost up the economic development of Nepal?
ii. Is there any relationship between FDI and economic development in the context of Nepal?
iii. Does BIPPA encourage FDI flow within an economy?

1.5 Objectives of Study

The general objective of this study is to analyze the situation of FDI and BIPPA in the contribution of economic growth of Nepal and the specific objectives are as following:

i. To observe the factors that affect economic development in Nepal.
ii. To observe and analyze the situation of FDI, BIPPA agreed countries and its contribution in economic growth of Nepal.

1.6. Significance of the Study

Nepal is the country of rural poverty and unemployment. It's low domestic saving rate, standing at 18.1 percent of GDP suggests that Nepal, alone, may not possess the ability to build up enough capital to devise realistic strategies to achieve its development targets. So, to fill the gap between

domestic savings and investment needs, FDI is essential since it is less volatile than other capital flows.

1.7. Foreign Direct Investment

Foreign direct investment (FDI) is an investment made by a company or individual in one country in business interests in another country, in the form of either establishing business operations or acquiring business assets in the other country, such as ownership or controlling interest in a foreign company. Foreign direct investments are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based companies. The key feature of FDI is that it is an investment made that establishes either effective control of, or at least substantial influence over, the decision making of a foreign business. Nepal has prioritized inward FDI for the investment in its territory in which capital is invested from a foreign direct investor residing in any country, or economy, to our country.

FDI plays a catalytic role in economic growth. It is a source of capital formation. Likewise, it helps technology to spillover, supports human capital formation, enhances international trade integration, creates competitive environment and strengthens enterprise development.

FDI is critical for developing and emerging market countries like Nepal. It is recognized as a powerful engine for economic growth. It enables capital-poor countries to build up physical capital, create employment opportunities, develop productive capacity, enhance skills of local labour through transfer of technology and managerial know-how, and helps to integrate the domestic economy with the global economy.

1.8. Significance of Study

It is very hard to increase the investment and to be developed to the poor country like Nepal. Foreign assistance including FDI is regarded as essential for industrial development and all-over economic growth development and economic prosperity. This study provides a brief knowledge about FDI, BIPPA, policies regarding FDI and factors affecting economic growth of Nepal.

1.9. Hypothesis

The following are the research hypotheses:

i. The inflow of the Foreign Direct Investment increases per year.
ii. There is significant positive relationship between FDI Inflow and Economic Development.

1.10. Limitations of the Study:

i. This study has analyzed FDI of certain time period.
ii. The information of this study is based on secondary data, which are collected from related office and documents.

iii. This study has been written based on the situation of FDI and BIPPA and its contribution in economic growth of Nepal.

1.11. Organization of Study

The first chapter of the study includes introductory part. Where Background of study, economy of Nepal and neighboring countries, statement of the problem, research questions, objectives of the study, , foreign direct investment, significance of the study, hypothesis are explained. Chapter two Reviews the literature. Chapter three explains the statistics on FDI. Chapter four is based on the policies and provisions on FDI in Nepal. Chapter five includes research design and methodology of the study. Calculation regarding 'Contribution of FDI in Economic Development of Nepal' is done in chapter six. And finally, chapter seven summarizes the research work and recommendations are given to the concerned.

Chapter II

Review of Literature

This chapter consists of review of literature. In the part of literature review this study consist the theoretical review, international studies and national studies of relevant study.

2.1 World Experience of FDI and BIPPA

The role of FDI in driving economic growth and development has been a contested one ever since the UN development decade of the 1960s. FDI is generally considered as a key driver of global economic integration. FDI inflows are often seen as important catalyst for economic growth in both of the developing and the developed countries.

a. FDI in the Developed Countries

The South Korean development experience was impressive and provided important lessons for developing countries. South Korea was one of the poorest countries in the world in the late 1950s. It transformed from a poor agricultural economy into a newly industrializing country. Transformation to a wealthy developed country less than half a century is often called the miracle on the Han River and earned the recognition of "Asian Tiger" in the international community (Chin, 2004). South Korea was the 6th largest recipient of FDI in Asia and 19th in the world with US $ 127.05 billion in 2010 (UNCTAD, World Investment Report, 2011). This indicates the significant presence of FDI in South Korean economy.

On the other hand, Australia's economy has outperformed its peers for more than two decades and the country is achieving great success in global industries. Investment from overseas helps stimulate the economy's growth, creates local jobs and drives for modernization. FDI is woven into their daily lives; from roads and public transport, to technology used in phones or computers.

FDI helps to empower some of Australia's leading industries, creating more opportunities and jobs. It supports local businesses, develops infrastructure and builds regional economies, and drives greater competitiveness, innovation and productivity through new technologies.

The major findings from Australia's FDI are highlighted as following:

- Supporting 1 in 10 jobs
- Contributing 41 per cent to Australia's goods and services exports
- Accounting for $2.7 Trillion in total assets (in 2014/15)
- Contributing $286 Billion to industry value added (in 2014/15)

(Australian Government, Australian Trade and Investment Commission, https://www.austrade.gov.au/international/invest/benefits-of-foreign-direct-investment)

Similarly, the US has occupied a dominant position both as a foreign investor and as a recipient of direct investment. It is the largest recipient of FDI inflows worldwide (amounting to 161 billion USD), and many major investors worldwide are from the US (OECD, 2017). FDI in the US increased by 47,253 million USD in the second quarter of 2018 (Trading Economics, 2018).

The UK has been the largest beneficiary of foreign investments from Europe, but the uncertainty around Brexit has led to a decrease in investments from non-EU countries. FDI in the UK remains a capacity-building activity along with the positive technological spillovers that it can bring (UNCTAD, 2018).

France is the third largest economy in the EU, and FDI in France is a large part of its GDP. France's FDI outflows were equivalent to 50% of its GDP in 2015, which was almost twice the size of its FDI inflows (OECD, 2017). According to the World Investment Report (UNCTAD, 2018), France attracted a significant amount of FDI in 2017 while FDI dropped at the global level.

b. FDI in Developing Countries:

FDI has an important role in economic growth even in the developing countries. Malaysia is one of the most popular destinations for FDI in Southeast Asia. FDI outflows in Malaysia are mainly driven by horizontal, market seeking types of investment. Nevertheless, Malaysia's FDI inflows significantly affect GDP positively in the long term. Similarly, FDI in Iran is mainly market-seeking type and there is a long-term, steady and reciprocal relationship between FDI and GDP (Y. A. Ahmed, R. R. Ibrahim 2019).

Evidences from developed and developing countries prove that the FDI is attracted in fastest growing and economic steady state economies than the volatile countries.

2.2. Research Results on FDI

Phuyal, Ram Kumar and Sunuwar, Seema (2018) in "A Sectoral Analysis of Foreign Direct Investment on the Economic Growth of Nepal" Found that FDI is not yet a big contributor of economic growth in context of Nepal. Considering GDP as the dependent variable, FDI inflow in Manufacturing, Service and Tourism industries showed a significant relationship.

Jana, Shib Sankar, Sahu, Tarak Nath and Pandey, Krishna Dayal (2019) "Foreign Direct Investment and Economic Growth in India: A Sector-specific Analysis" conclude that FDI in agricultural sector fails to exert any favorable impact on the growth of this sector of Indian economy. Unlike agricultural sector, the study finds significant bidirectional causality between FDI in manufacturing sector and its growth for both in the short run and long run. Therefore, study approves the potential of manufacturing sector in generating favorable impact from inward FDI. Similar to manufacturing sector, their study documents a bidirectional causality between service sector FDI and service sector growth both for short and long run.

Laura, Alfaro (2003) in (Foreign Direct Investment and Growth: does the sector matter) has studied on the sectorial impact of FDI in the economy. She finds that effects of FDI flows to manufacturing sector have a positive effect on growth whereas FDI inflows into the primary sector tend to have a negative effect on growth. The evidence from the foreign investments in the service sector is ambiguous. The author concludes that, to get the beneficiary of FDI, countries should target certain sectors that need to be weighed against bureaucratic costs and increased potential for the corruption

of differentiated schemes. The economic nature of the host country is also an important determinant.

Burcu, Türkcan; Alper, Duman and Yetkiner, I. Hakan (2008) in "How Does FDI and Economic Growth Affect Each Other" have tested the endogenous relationship between FDI and economic growth using a panel dataset for 23 OECD countries for the period 1975-2004. They found that FDI and growth are important determinants of each other. Their result shows FDI is attracted in the advanced economy due to their growth prospects and positive country conditions. The investor wants some return from the investment. The rate of return is obviously higher in the economically sound countries than in the poor countries. Their research results also indicate that economic growth stimulates growth rate of FDI inflows more than that the growth rate of FDI stimulates economic growth.

Leandro do Rosário Viana Duarte, Yin Kedong & Li Xuemei (2017) in The Relationship between FDI, Economic Growth and Financial Development in Cabo Verde", found that higher levels of FDI inflow mean higher levels of economic growth and vice versa. Furthermore, they found that both economic growth and domestic credit to private sector are important factors in stimulating the FDI into the country.

Osano and Koine (2016) in "Role of foreign direct investment on technology transfer and economic growth in Kenya: a case of the energy sector" Conclude that FDI creates employment opportunities and helps transfer of managerial skills and technology, all of which contribute to economic development. Moreover, FDI may promote economic development by contributing to productivity growth and exports in the host

countries. In addition to this they concluded that the characteristics of the host country's industry and policy environment are important determinants of the net benefits of FDI which include industrial growth, improved technology, and infrastructure in the country.

Das and Kalra (2015) in "A Study on Relationship between FDI and International Trade in India" conclude that the trends of exports, imports and FDI are in approximate same direction in India. But there is negative relationship of FDI and balance of trade. This means the increment in imports is higher in compare to increase in exports in India.

Lee, Jong-Wha; Gregorio, Jose De and Borensztein, Eduardo (1994) in "How Does Foreign Direct Investment Affect Economic Growth" tested the effect of foreign direct investment (FDI) on economic growth in a cross-country regression framework, utilizing data on FDI flows from industrial countries to 69 developing countries over the last two decades. Their results suggest that FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. However, the higher productivity of FDI holds only when the host country has a minimum threshold stock of human capital. In addition, FDI has the effect of increasing total investment in the economy more than one for one, which suggests the predominance of complementarity effects with domestic firms.

Sahoo, Pravakar (2006) in "Foreign Direct Investment in South Asia: Policy, Trends, Impact and Determinants" concluded that FDI and all its potential determinants have a long-run equilibrium relationship. The major determinants of FDI in South Asia are market size, labor force growth, infrastructure index and trade openness. However the most significant and

influential factors are market size and labor force growth. Overall, South Asian countries need to maintain growth momentum to improve market size, frame policies to make better use of their abundant labor forces, improve infrastructure facilities and follow more open trade policies for attracting more FDI.

2.3 Research Gap

Above mentioned literatures have dealt with the importance and impact of FDI in the economy. They studied about overall and sectorial impact of FDI in the economy. Moreover, they studied the importance of FDI in both developing and developed economies. But there are very few literatures which studied the Nepal's BIPPA agreement with other countries, trends of FDI and impact of FDI in GDP growth of Nepal. Therefore, I decided to study in this area. In this study, I have focused on situation of FDI and BIPPA and contribution of FDI in economic growth of Nepal.

Chapter III

Foreign Direct Investment in Nepal

3.1. World Scenario of FDI

In 2019, total FDI was $ 1539 billion in the world. Among which developed economies get more than 50 percent of total FDI and developing world get less. About 31 percent of total FDI flows to Asian countries. Nepal's share in the world total FDI is only 0.01 percent.

The following table makes clearer about the flow of FDI by region:

Table 3.1: FDI Flow by Region

YEAR	2014	2015	2016	2017	2018	2019
World (US $ Millions)	1403865	2041770	1983478	1700468	1495223	1539880
Share (in percent)						
Developed economies	47.69	62.42	63.79	55.88	50.92	51.97
Developing economies	48.25	35.75	32.87	41.20	46.77	44.47
Asia	32.78	25.19	23.62	29.52	33.34	30.77
South Asia	2.95	2.51	2.74	3.04	3.49	3.73
Nepal	0.00	0.00	0.01	0.01	0.00	0.01

Source: World Investment Report 2020, UNCTAD

3.2 FDI in South Asian Countries

Among the total FDI inflow of 2019, in South Asia, more than 90 percent FDI was invested to India. Pakistan and Bangladesh got 4.0 percent and 2.9 percent of total FDI respectively. Nepal got 0.3 percent only.

The following table makes it clearer about the FDI inflow in the south Asia.

Table 3.2: FDI Flow in the South Asia (US $ Millions)

Year	2014	2015	2016	2017	2018	2019
Afghanistan	44	163	94	53	119	39

Year	2014	2015	2016	2017	2018	2019
Bangladesh	1551	2235	2333	2152	3613	1597
Bhutan	22	6	-34	-10	6	7
India	34582	44064	44481	39904	42156	50553
Maldives	333	298	457	458	539	565
Nepal	30	52	106	198	67	185
Pakistan	1887	1673	2576	2496	1737	2218
Sri Lanka	894	680	897	1373	1614	758

Source: World Investment Report 2020, UNCTAD

3.3. History of FDI in Nepal

In the context of Nepal, history of foreign direct investment is very short. FDI in Nepal can be analyzed in terms of time periods. They are (a) Prior to Democracy (1760–1950) (b) Post Democracy (1951 and onwards).

a) Prior to Democracy

In earlier period of Nepal's history, Late Great King Prithvi Narayan Shah developed and adopted the nationalist policy prohibiting foreigners in Nepal for any purpose for preserving "nationalism, independence and sovereignty" between two giants – India and China.

After the rise of Rana Regime in Nepal, Prime Minister Jung Bahadur Rana continued traditional nationalist policy started by Shah Rulers. He made it liberal balancing and making cheerful particularly to British Empire for preserving nationalism, independence and sovereignty" of Nepal. The formation of Udyog Parisad in 1935 was the initial spurt towards industrialization in Nepal. This was followed by Nepal Company Act 1936 which made provision for the incorporation of industrial enterprises or joint-stock enterprises. Biratnagar Jute Mill, the first joint – stock public company was established in 1936 in collaboration with Indian enterprises and local counterpart with a paid-up capital of Rs. 800,000.

The great World War II pushed up demand of jute products encouraging foreign investment in Nepal particularly in jute production. Then FDI inflow increased in the production of handmade papers, soap, ceramic, furniture, mats, textile and cigarettes. But most of these joint ventures closed after the end of the Great World War II.

b) Post Democracy

In 1950s, after the establishment of democracy, Nepal adopted economic liberalization to minimize public expenditure burden of lost public enterprises, mobilize private savings, investments, and FDI (Foreign Domestic Investment) as well as to meet Multilateral Donors conditions of economic reform. Since this time, FDI inflow has started to rise.

In 1960s', Panchayat regime was introduced. However, the political transition of 1960s' could not favor FDI till 1980s. In the subsequent years of 1980s', Nepali economy was suffering from macroeconomic crisis. In such situation, Nepal had not alternative except to implement structural adjustment program (SAP) introduced and developed by the World Bank and International Monetary Fund (IMF). In the SAP, Nepal could get financial assistance from the World Bank and IMF. So, Nepal began structural reforms by devaluating Nepali currency with dollar by 14.7 percent. Nepal laid emphasis on private sector led growth. In 1980s' the government of Nepal reviewed commercial Act-1984 and then liberalized the financial sector for Joint Venture Investment in Commercial Banks. Consequently, Nepal Arab Bank Limited was established. The SAP was continued till 1989. During the period, the flow of FDI began to come in Nepal in financial and services sector.

The wave of globalization in the world and the restoration of democracy in 1990 have made liberal political economy as a foundation of market economy. Accordingly, SAP was recharged into Enhanced Structural Adjustment Program (ESAP) under which Nepal followed liberal policy reforms in all sectors (taxation system, industry, trade, investment, service sector, and water resources) to ensure people's higher aspiration and as a preparatory requisite to enter World Trade Organization (WTO). Thus, all economic sectors except security, media, micro enterprises, traditional agro enterprises and few sub-sectors related tourism have been opened for FDI and private sector. This created optimism about the inflow of FDI. However, FDI flow did not meet expectation.

3.3. Status of FDI in Nepal

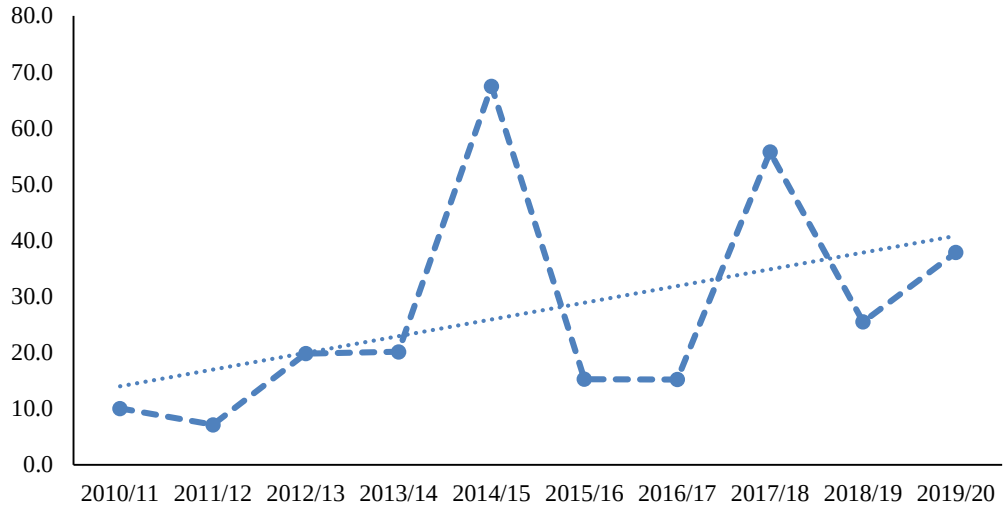
The inflow of foreign investment in Nepal started before six decades. But the managed records were started only from 1981 (2038 B.S.). Till mid-July of 2020, 94 countries have invested in Industries in Nepal. Nepal has signed in BIPPA agreement with six countries naming France, Germany, UK and Great Britain and Northern Ireland, Mauritius, Finland and India.

From the beginning to mid-July of fiscal year 2019/20, NRs. 333.06 billion FDI was committed for investment in 5,052 industries. Of the total registered foreign investment commitment, the share of small industries is 83.4 percent, medium 11.4 percent and small 6.2 percent.

Investment growth pattern in foreign invested project is not similar. Commitments of FDI is quite higher in fiscal year 2014/15 and 2017/78 than the other fiscal years.

The scenario of the FDI can be made clear with the help of following figure:

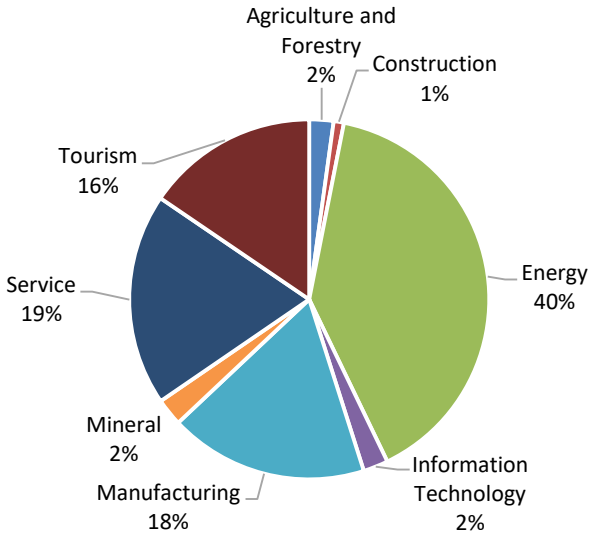
Figure 3.1 Total Amount of Approved Foreign Direct Investment (Rs. in Billion)



Source: Industrial Statistics, 2076/77 (2019/20), Department of Industry, Nepal
Note: 2010/11 stands for July 16, 2010 to July 15, 2011 and so on.

The above graph shows positive trend of FDI in Nepal.

Figure: 3.2 Sector wise FDI Approval in Nepal



Source: Industrial Statistics, 2076/77 (2019/20), Department of Industry, Nepal

Up to mid-July of 2020, about 40 percent of total FDI commitment is in energy sector. Service sector, manufacturing and tourism sector has attracted 19 percent, 18 percent and 16 percent of total FDI commitment in Nepal.

3.4 Major investors in Nepal

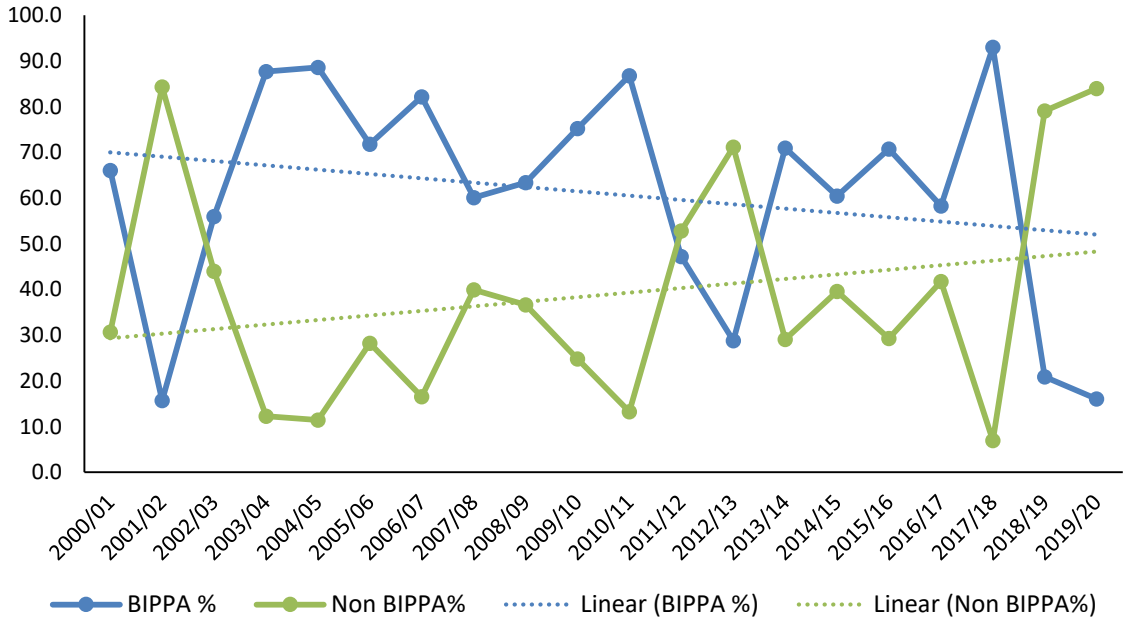
Up to Mid-July of 2020, there are 5052 commitment of foreign investment projects in Nepal, worth a total of approximately Nrs. 333.06 billion; according to official government statistics. China is a leading host of FDI in Nepal with 1,711 ventures accounting 44.6 percent of total FDI.

Table 3.2: Major investors in Nepal (From the Beginning to Mid-July of 2020)

S.N.	Country Name	No. of Projects	Total Amount of FDI (in billion rupees)
1.	China	1668	141.09
2.	India	796	97.73
3.	Great Britain	200	15.48
4.	USA	417	13.29
5.	South Korea	357	12.57
6.	Singapore	51	4.52
7.	United Arab	22	3.47
8.	Mauritius	11	3.44
9.	Canada	47	3.34
10.	Japan	275	3.23
11.	Others	1155	25.86
12.	Total	4999	324.01

Source: Economic Survey 2020, Ministry of Finance Nepal.

Figure 3.3: FDI by BIPPA and non BIPPA Countries (Percentage)



Source: Department of Industry, Nepal, Industrial Statistics, 2018/19.

The above figure shows the percent of investment through FDI flow of previous years**.** We can see that Foreign Investment made by the BIPPA

Signed countries is quiet higher than the non-BIPPA countries. Moreover, the FDI from BIPPA signed countries is in declining trend. And the FDI from non-BIPPA countries is in the increasing trend. This suggests to increase effectiveness in attracting FDI in Nepal.

3.5 Flow of FDI from BIPPA Agreed Countries

Nepal has signed BIPPA agreement with six countries naming: France (1983), Germany (1986), UK and Great Britain and Northern Ireland (1993), Mauritius (1999), Finland (2009) and India (2011). But Out of the total investment from 1983 to 2018, the FDI from France is only 0.7 percent. The FDI from India is 88.8 percent of the total FDI. It means BIPPA agreement is not sufficient condition for FDI attraction in Nepal. The tendency of FDI flow in Nepal is not increasing with BIPPA agreement. Rather it seems more affected with political situation.

Chart (3.4): FDI Commitment by BIPPA Agreed and Other Countries

(in Million Rupees)

Fiscal Year	Total FDI Commitment	BIPPA Countries	BIPPA %	Other Countries	Other%
2000/01	3102.56	2049.52	66.1	953.04	30.7
2001/02	1209.65	189.72	15.7	1019.93	84.3
2002/03	1793.77	1004.31	56.0	789.46	44.0
2003/04	2764.80	2425.07	87.7	339.73	12.3
2004/05	1635.77	1448.71	88.6	187.06	11.4
2005/06	2606.31	1870.54	71.8	735.77	28.2
2006/07	3226.79	2651.36	82.2	534.62	16.6
2007/08	9811.00	5896.53	60.1	3916.07	39.9
2008/09	6255.09	3963.92	63.4	2291.17	36.6
2009/10	9100.00	6843.89	75.2	2256.11	24.8
2010/11	10053.21	8721.78	86.8	1331.43	13.2
2011/12	7138.31	3368.38	47.2	3769.93	52.8
2012/13	19818.73	5712.17	28.8	14106.56	71.2
2013/14	20132.42	14277.97	70.9	5854.45	29.1

Fiscal Year	Total FDI Commitment	BIPPA Countries	BIPPA %	Other Countries	Other%
2014/15	67455.04	40779.04	60.5	26676.00	39.5
2015/16	15254.33	10785.60	70.7	4468.73	29.3
2016/17	15206.46	8860.30	58.3	6346.16	41.7
2017/18	55760.48	51875.61	93.0	3854.77	6.9
2018/19	25479.44	5328.67	20.9	20150.77	79.1
2019/20	37853.27	6073.68	16.0	31779.59	84.0

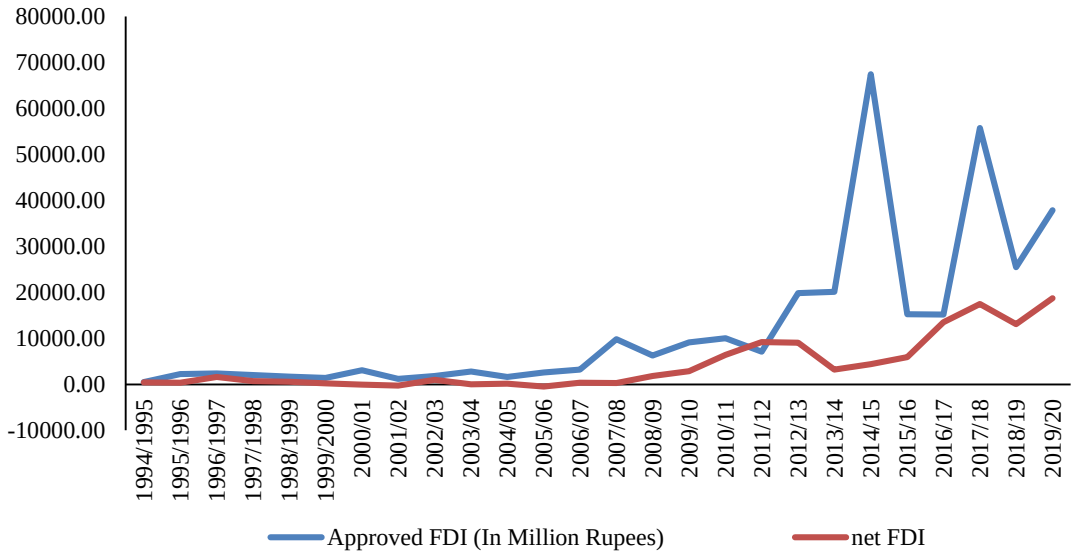
Source: Department of Industry, Nepal.

3.6 Net FDI in Nepal

Net FDI includes total actual FDI inflows plus minus FDI outflows. In the case of Nepal, inward FDI is only allowed by the government. So, for this research net FDI means total FDI inflows minus property of FDI that is sold out in order to take back to their own countries.

Figure (3.4): Gap between Total Approved FDI and Net FDI in Nepal

(Rupees in Million)



Source: Department of Industries and Nepal Rastra Bank, Nepal

In the chart 3.5, FDI from 1994/95 to 2019/20 is shown. The chart shows that there is huge gap between approved FDI and net FDI in Nepal.

Net FDI in the period of Maoist movement has in decreasing trend. In the years 2001, 2002, and 2006 net FDI is negative. After the election immediately after the second mass movement of 2007, net FDI of Nepal has been increased. Thus, FDI is directly affected by the positive political situation of Nepal.

3.7 Pull and Push Factors for FDI in Nepal

The factors that support to attract FDI in a country are considered as pull factors for FDI. The following factors can be listed as the pull factors for FDI:

a. Market size
b. Prospect of growth
c. Cheap labor
d. Lower inflation rate
e. Availability of quality infrastructure
f. Policy reform
g. Profitability of investment
h. Peaceful environment in the particular country.

On the other hand, the push factors are those which are in opposition of the above listed pull factors.

Chapter IV

Government's Efforts to Attract FDI

4.1. Policies and Provisions for FDI in Nepal

i. Major Policies

Government of Nepal has formulated plan and policies to regulate foreign direct investment in the country. Industrial Policy, 2011 and the Foreign Investment Policy, 2015 are implemented which guide the investors to invest in the industrial sectors in Nepal. Nepal has formulated some policies and act regarding foreign direct investment as listed in the appendix 1.

The policies have prioritized some of the sectors for the foreign investment that are as listed as following:

- Hydro Electricity
- Infrastructural Development for Transportation
- Agricultural, Food Processing and Herbs Processing Industries
- Tourism Industries
- Mines and Mineral Industries

The Government decision on September 6, 2012 has increased the minimum amount of FDI to NPR 5 million (Approx. 50,000 USD) for each investor from USD 20,000 (Approx. NPR 1.6 million). Foreigners are allowed to invest only in private limited companies and in public limited companies registered with the Company Register Office. They are not allowed to invest in proprietorship or partnership firms. There is no discrimination between a Nepali and foreign investors, and among various foreign investors in matters

of licensing, incorporation, tax, availability of visa, labor relation and repatriation. Nationalization of industries by Government is prohibited.

Priority Areas

- Fast track road, tunnel, railway, rope way, trolley bus
- Construction of international as well as regional level airport and in modernization and management of the airports in operation
- Waste management and recycling plant in rural area
- Chemical fertilizer production factory
- Petroleum refinery plant
- Construction of large bridges as specified by the government of Nepal
- Bank and financial institution, insurance or reinsurance company, with more than fifty one percent of foreign investment
- Medical college and investments to be made in hospital and nursing homes with more than three hundred beds
- Hydro power project with capacity equal to or more than five hundred megawatt,
- Establishment of special economic zone, export promotion or export processing zone, special industrial zone or information technology park and
- Infrastructure or service industry having fixed capital equal or more than ten billion rupees.

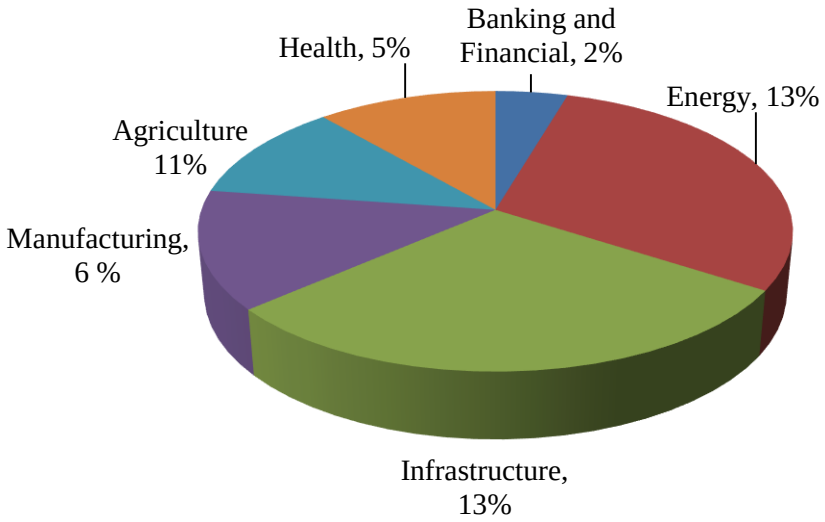
4.2. Efforts of Government to Attract FDI

Government of Nepal has conducted investment summit in 2nd March, 2017 and 29 and 30th of March 2019.

a. Investment Summit by Nepal

The investment in Nepali industries is not much attracted. Government of Nepal has conducted the investment summit in 2nd March, 2017 and 29 and 30th of March 2019. In the investment summit of 2017, letter of intent worth $13.74 billion has been gained from prospective investors of 8 countries. The Investors are mainly attracted to invest in energy and infrastructure sector in Nepal.

Figure 4.1 FDI Commitments in Top Priority Sectors Projects



Source: Investment Board of Nepal

Similarly, another investment summit was conducted in 29th and 30th of March 2019. The summit mainly focused on:

i. Sharing policy reforms undertaken by the Government of Nepal,
ii. Sharing potential projects both for studies as well as for the development,

iii. Receiving first-hand knowledge and feedback on policy reforms from key business players in/entering Nepal,
iv. Providing a networking platform for business leaders and
v. Encouraging public-private partnership.

Memorandum of Understanding with different investors was signed in fifteen projects.

b. Special Economic Zone in Nepal

The concept of Special Economic Zone has brought by the Government of Nepal to attract investment in the industrial sector so that export will be promoted and hence economic prosperity of the country is achieved by large amount of investment.

The Vision and Mission for establishing SEZ in Nepal are highlighted as following:

Vision

Promoting Special Economic Zone (SEZ) in Nepal as a totally commercial area specially established for the promotion of foreign trade that has economic laws more liberal than a country's typical economic laws attracting both: foreign and domestic investment. Also develop SEZ as a delineated enclave treated as foreign territory for the purpose of industrial, service and trade operations, with relaxation in customs duties and a more liberal regime in respect of other levies, taxation, foreign investments and other transactions.

Mission

Establish and operationalize SEZ: Achieve steady improvements in the establishment by:

- Proposing measures to create a steadily improving investment friendly environment;
- Removing and simplifying outdated unnecessary procedures, approvals and legislation;
- Facilitating greater private sector role in SEZ development for operation and development.

Achieving mission and vision

- **Attracting FDI**: as one stop agency which facilitates and support local and foreign investors in both manufacturing, and services sectors as they move up the value chain to achieve higher sustainable returns and seek out new opportunities.
- **Growing industry verticals:** while Nepal may be a regional attraction in various areas, we have to focus on expanding and extending existing industry verticals. Exploring new growth areas will contribute towards creating good bond and sustaining our competitiveness.
- **Enhancing business environment:** while interacting with investors and promoting investments, we have to provide feedback to other government agencies to ensure that infrastructure and public services remain efficient and cost competitive. Government as the facilitator and or regulator rather than developer and operator.

4.3 Pitfalls of FDI Policy

Overall FDI policy provisions are seemed to be good. While implementation, the following problems are raised:

i. **One Window Policy:** The policy has provisioned one door one window, one step policy but the reality in practice is different. Investors could not get one window service. Many doors and windows are there in practice. Focusing on the one door policy is the urgent need.

ii. **Repatriation:** Foreign investors are facing problems in the process of repatriation of funds and dividends, service fees etc. Authorities demand proof of financial investments even though the paperwork is already complete while registering industry. The investors feel troublesome for such paper works repetitions.

iii. **Taxation:** Nepal is considered to have reasonable corporate tax rates in the South Asia region but there are still some pertinent issues in the tax system that limit Nepal's potential in receiving high FDI inflow. investors have been asking the government to reintroduce a tax rebate on profits that gets reinvested. Similarly, there are no policies to provide tax incentives to reward companies for their positive undertakings such as CSR, green energy and waste water utilization etc. Though the new Industrial Enterprises Act has a provision to encourage such initiatives, the same is yet to be included in the tax law.

iv. **Speed of decision making:** The slow pace of decision making has always been a major concern for foreign investors. They complain

that the authorities make them wait for long time, for no apparent reason.

4.4 Key factors for foreign investors:

Nepal has many potential factors to flourish foreign investors. With its scenic beauty and a dense population, Nepal provides several other financial features to foreign investors. The SWOT analysis of Nepal in relation to investment provides basic information on ensuring investment. SWOT analysis for foreigners to invest in Nepal can be highlighted as following:

a. Strength:

- Location between the two potentially largest markets in the world: China and India
- Macroeconomic stability and a relatively liberal economy
- Trainable and low-cost workforce
- Substantial natural and cultural assets
- Small and accessible bureaucracy and a generally business-friendly Government.

b. Weakness:

- Landlocked country
- Poor infrastructure and mostly unskilled workforce
- Rigid and intrusive labor legislation
- Political instability, weak implementation and persistent corruption

c. Opportunities:

- Tourism, including sports and adventure tourism, health tourism and cultural tourism
- A variety of agricultural and agro-business activities

- Hydropower generation and infrastructure development
- IT-based services

d. Threats:

- **No threats.**

Source: UNCTAD

4.5. Possible investment sectors/Areas of opportunities:

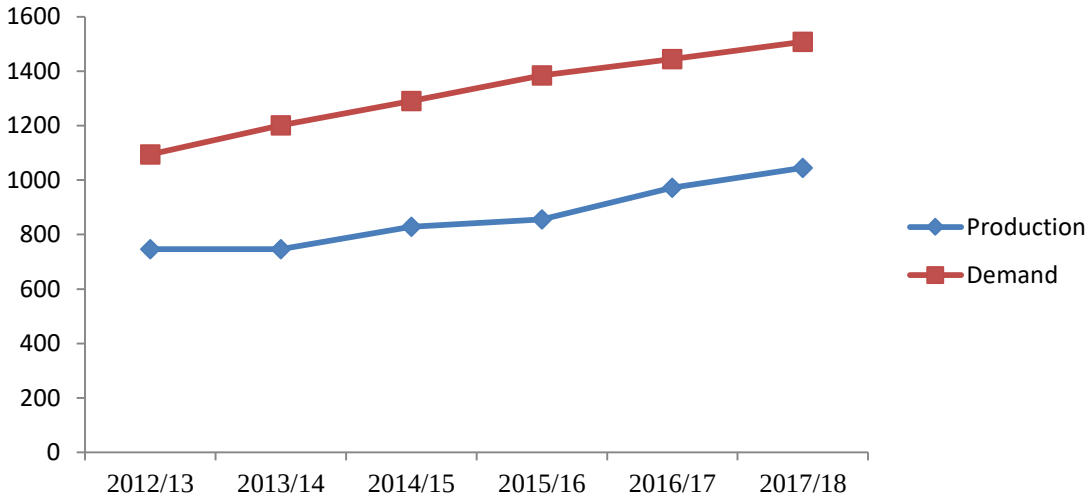
Nepal a country with an area of 147,181 Sq. km has a population around 28 million populations (census 2010). It can play as a trade bridge between world's two largest economy India and China. Nepal has several features to lure Foreign Investors. Despite of having more than 80 percent of cultivate geography; it fails to attract foreign investors on agriculture sectors. Along with it, with a hydropower capacity of Eighty thousand megawatt of electricity, it has been able to produce a mere eleven hundred and forty two megawatt of energy. Tourism, industrial, technical, manufacturing, etc. is other sectors where investors can jump. Based on UNCTAD article, the crucial areas for opportunities are agriculture & related industries, Hydroelectricity, Tourism, Internet & Telecommunication, etc.

- **Agriculture and related industries:** This sector has great international demand. Nepali soil is favorable to many agricultural products. Rice, wheat, paddy, Millet and barley are the main food crops and mustard and rapeseed as the major oil seed. Other vital agricultural products as printed by (NRN association) are "sunflower, sesame and groundnut in oilseeds; asparagus, French beans, green peas, snow peas, chick peas, pigeon peas, black gram and grass peas; okra, lettuce, onion, garlic, ginger, cauliflower, broccoli, cabbage, sweet peppers, mushrooms and

tomatoes in vegetables; roses, carnations, orchids, chrysanthemums and ornamental plants in floriculture. Apple, pear, walnut, peach, plum, apricot, persimmon, pomegranate and almond are the major winter fruits, while mango, banana, guava, papaya, jackfruit, pineapple, lychee and coconut are the major summer fruits, in addition to citrus, which includes orange, sweet orange, lime and lemon". Sheep farming is another relevant investment as the raw wool is a high demand for carpet industries. Nepal has suitable climate condition to various types of fruits, crops, vegetables. Thus, implementing technology and skills in the sectors, foreign investor can make a handsome business.

- **Hydro Electricity:** Nepal is reach in water resources. It holds the capacity to generate eighty three thousand megawatt of electricity. Despite of having forty four thousand megawatt of electricity economically feasible, Nepal has been able to produce mere one thousand two hundred and thirty three megawatt (Economic Survey, 2019/20). This sector could be a significant investment as the demand of electricity is high in Nepal and India. The government is highly encouraging foreign investors to jump into hydropower as it has potential benefits.

Figure 4.2: The Gap between Demand and Supply of Electricity in Nepal (MW)



Source: Economic Survey 2017/18, MoF Nepal

The above figure shows the potential investment sector in Nepal is Hydro Power. Nepal is rich in water resources. There are about 6000 rivers in Nepal having drainage area of 191000 sq. km, 74 percent of which lies in Nepal alone. There are 33 rivers having their drainage areas exceeding 1000 sq. km. But Till mid-March of FY 2019/20, 90.0 percent of the total population has access to electricity. There is still the big gap of energy demand and its supply in Nepal.

- **Tourism:** Tourism is the second largest employment sector after agriculture (Telegraph Nepal). The scenic beauty with several religious monuments and a home to the highest peak of the world has infinite resources that could attract tourist. Mountains, hills, lake, springs, caves, etc. have equipped Nepal as one of the most beautiful places of the world. Lumbini, the birthplace of Buddha, attracts thousands of Buddhist

pilgrimage every year. There are several such historic places, which can be further developed and used as tourists' means.

- **Internet and Telecommunications:** This sector possesses significant influence to foreign investors. Nepal telecommunication has been entertaining the monopoly market for decades. However with the introduction of UTL and Spice Nepal, NTC has lost its single monopoly over the market. A country with a population of 28 million seeks massive investment in this sector. 'Ncell', which is an investment by TELIASONERA group of Finland, is climbing a ladder of success these days. Nepal still lacks high-speed internet facilities.

Chapter: V

Research Design and Methodology

5.1. Research Methodology

This dissertation makes an attempt to observe and analyze the present situation of FDI and its contribution in economic growth of Nepal. Therefore, this chapter is recognized analyzing procedure and tools for the study process. An analytical study, some statistical tools, and techniques are also used in the desired format.

Econometric tools are very useful to investigate nature and direction of relation between the variables. Using the time series data, it also examines the extent of impact of FDI in the economic acceleration of Nepal. This study depends on the secondary sources data. The data published and provided by the Ministry of Finance, Ministry of Industry and Department of Industry are used. The reliable data are used to observe the possible outcomes and used mathematical techniques to make the outcomes reliable. The time-series data are analyzed using e-views software.

5.2. Sources of Data

The nature of the problem of this study is itself based on secondary sources. This study is based on data compiled by previous investigations as well as that collected through an opinion survey. The secondary data and information used in this study are compiled from the publications of the following sources:

- Department of Industry, Nepal

- Investment Board of Nepal
- Research Reports and Quarterly Journal of Central Bank
- Development plan published by National Planning Commission
- Several academic books related to Foreign Direct Investment
- The Economic Survey, Ministry of Finance
- Other research works.

This study is based on the secondary data. Hence, the study is in the form of Macroeconomic Study.

5.3. Tools and Techniques of Data Collection

This study is based on the secondary sources of data. This study has included only the reliable and truthful data in the necessities. The data are collected from previous relevant studies, published documents, literature, and previous governmental and non-governmental records.

5.4. Data Analysis and Presentation

The nature of research problem is related to the published data analysis. Together with secondary data, different related report books, brochure, procedural manual are studied and analyzed to collect the required information. Statistical tools like average, percent, ratio, etc. are used for data analysis. In addition, the data are presented by using simple methods like bar-diagram, pie chart, table, figure, graph etc. To analyze the impact of FDI in economic development of Nepal, time series data is analyzed by using e-views. Regression analysis is run in order to find out the contributors of economic development of Nepal.

5.5 Econometric Method with OLS

A Least Square method is a useful mechanism to determine the interactions between different variables. To test for the impact of FDI in economic development of Nepal, overall, these steps are commonly followed in time series approach studies:

i. Stationery and non-stationery test,
ii. Autocorrelation test,
iii. Test of normality,
iv. Heteroskedasticity test,
v. Co-integration,
vi. Long run and short run relationship.

i. Stationery and Non-Stationery Test:

A stationary series is a key idea in time series. It refers to the mean of the series, which is no longer a function of time. Stationary series play a fundamental role in the study of a time series. Noticeably, not all time series that we encounter are stationary. A stationary series is one whose basic properties, that are its mean and its variance, do not change over time. With evidence of unit roots, the series are said to be integrated of order one I(1), meaning that they must be modeled in first difference ($\Delta y_t = y_t - y_{t-1}$) to make them stationary. In this research the non-stationary data are converted into stationary.

Steps in e-views: Quick/Series Statistics/Unit Root Test/ Series Name/Augmented Dickey Fuller Test/

ii. Autocorrelation Test:

Auto correlation is a characteristic of data which shows the degree of similarity between the values of the same variables over successive time intervals. Autocorrelation can also be referred to as lagged correlation or serial correlation, as it measures the relationship between a variable's current value and its past values. When autocorrelation is detected in the residuals from a model, it suggests that the model is mis-specified (i.e., in some sense wrong). A cause is that some key variable or variables are missing from the model.

Here the Breusch-Godfrey Lagrange multiplier test is used for the auto correlation test.

Null Hypothesis: There is no serial correlation in the residuals
Alternative Hypothesis: There is serial correlation in the residuals

The procedure for LM test in eviews
"View" / "Residual Diagnostics" /"Serial Correlation LM Test".

iii. Test of Normality:

Normal distribution is a probability distribution that is symmetric about the mean, showing that data near the mean are more frequent in occurrence than data far from the mean. In statistics, normality tests are used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed.

Jarque-Bera test is used to identify the normality of the data. The Jarque–Bera test is a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution.

A result of 1 means that the null hypothesis has been rejected at the 5% significance level. In other words, the data does not come from a normal distribution. A value of 0 indicates the data is normally distributed.

Procedure: View/Residual Diagnostics/Histogram-Normality.

iv. Heteroskedasticity Test:

Heteroskedasticity refers to the circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it. It is the condition of violation of the assumptions for linear regression modeling, and so it can impact the validity of econometric analysis. Heteroskedasticity is a problem because ordinary least squares (OLS) regression assumes that all residuals are drawn from a population that has a constant variance (homoskedasticity).

Procedure: View/Residual Diagnostics/Heteroskedasticity Tests.

v. Co-integration:

Co-integration tests identify scenarios where two or more non-stationary time series are integrated together in a way that they cannot deviate from equilibrium in the long term. Here Johansen Test is used to test for co integration test. The Johansen test allows for more than one co-integrating relationship. Since there is long run association between the

variables the vector error correction model can be run. Otherwise Vector auto regressive model should run.

Steps in eviews: /Quick/Group Statistics/Co-integration test intercept (no trend) in CE and Test.

vi. Vector Error Correction Model:

Since there is long run association between the variables, we can run the vector error correction model. A vector error correction (VEC) model is a restricted VAR designed for use with non-stationary series that are known to be co-integrated. The VEC has co-integration relations built into the specification so that it restricts the long-run behavior of the endogenous variables to converge to their co-integrating relationships while allowing for short-run adjustment dynamics. The co-integration term is known as the error correction term since the deviation from long-run equilibrium is corrected gradually through a series of partial short-run adjustments.

A vector error correction (VEC) model is a restricted VAR designed for use with non-stationary series that are known to be co-integrated.

Steps in eviews: Quick/Estimate VAR/Vector Error Correction/(write the value-it automatically converts the variables into first difference.) /Proc/Make System/Order by Variable (copy one)/Quick/estimate Equation (Paste)/Ok

vii. Long run and short run relationship:

Since there is long run association between the variables the vector error correction model can be run.

To find the short run causality, the steps in eviews are: Run VECR/ View/Coefficient Diagnostics/Wald Test

Chapter: VI

Contribution of FDI in Economic Development of Nepal

6.1 Key Variables

The model used in this study consists of the variables- economic growth foreign grant, foreign loan, private investment, public investment, remittance, total approved FDI, total exports, total imports, total investment and government spending. Although the main focus of this study is to analyze the impacts of FDI in the national economy, I have taken other variables in order to analyze the relative contribution of each variable in the economic growth of our country. The data are shown in the annex. For analysis, we have taken the log natural value of the data.

6.2. Regression Table 1

Calculating for GDP at producer's price

Dependent Variable: LN_GDP_AT_PRODUCER_S_PRICE
Method: Least Squares
Date: 12/15/20 Time: 13:48
Sample: 1996 2018
Included observations: 18

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_FOREIGN_FINANCING	0.088680	0.112903	0.785456	0.4488
LN_GROSS_FIXED_CAPITAL_FOR MATION	0.361408	0.121889	2.965048	0.0129
LN_MECHINERY_IMPORTS	-0.046621	0.112159	-0.415671	0.6856
LN_NET_FDI	0.025518	0.012089	2.110885	0.0585
LN_REMITTANCE	0.167657	0.024364	6.881259	0.0000
LN_TOTAL_INVESTMENT	0.140857	0.105284	1.337867	0.2079
C	3.653715	0.411237	8.884704	0.0000

R-squared	0.998546	Mean dependent var	11.46126
Adjusted R-squared	0.997753	S.D. dependent var	0.822180
S.E. of regression	0.038978	Akaike info criterion	-3.366355
Sum squared resid	0.016712	Schwarz criterion	-3.020099
Log likelihood	37.29719	Hannan-Quinn criter.	-3.318611
F-statistic	1258.832	Durbin-Watson stat	0.921563
Prob(F-statistic)	0.000000		

In the regression table 1, GDP at producer's price is dependent variable and foreign financing, gross fixed capital formation, machinery imports, net FDI, remittance and total investment are independent variables. Gross fixed capital formation and remittance are significant at 5 percent significant level and net FDI is significant at 10 percent. 99.85 percent of variation in the dependent variable is explained by the independent variables. Here probability value of F-statistic is 0.0.

6.3. Stationery test of basic variables:

Regression of a non-stationary time series on another non-stationary time series may cause a spurious regression or a non-sense regression. A spurious regression is not desirable. So, we need to test for stationery of data.

Variables	At level	At first difference	Second difference	Significant percent
LN_GDP_AT_PRODUCER_S_PRICE		*		
LN_FOREIGN_FINANCING		*		**5**
LN_GROSS_FIXED_CAPITAL_FORMATION		*		**5**
LN_REMITTANCE		*		1
LN_TOTAL_INVESTMENT		*		1
LN_MECHINERY_IMPORTS		*		1

Here the non-stationery data are converted into stationery and the multiple regression result has been shown below.

6.4 Regression table 2.

Dependent Variable: DLN_GDP
Method: Least Squares
Date: 12/15/20 Time: 13:44
Sample (adjusted): 1997 2018
Included observations: 14 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLN_FOREIGN_FINANCING	0.060701	0.061351	0.989405	0.3554
DLN_GROSS_FIXED_CAP_FOR	-0.089480	0.185293	-0.482912	0.6439
DLN_MECHENARY_IMPORTS	-0.034032	0.079321	-0.429041	0.6808
DLN_NET_FDI	0.014312	0.008382	1.707508	0.1315
DLN_REMITTANCE	0.130604	0.072916	1.791159	0.1164
DLN_TOTAL_INVESTMENT	0.235495	0.066820	3.524305	0.0097
C	0.070217	0.028998	2.421475	0.0460

R-squared	0.851233	Mean dependent var	0.124601
Adjusted R-squared	0.723718	S.D. dependent var	0.040913
S.E. of regression	0.021505	Akaike info criterion	-4.534204
Sum squared resid	0.003237	Schwarz criterion	-4.214675
Log likelihood	38.73943	Hannan-Quinn criter.	-4.563782
F-statistic	6.675554	Durbin-Watson stat	1.504488
Prob(F-statistic)	0.012300		

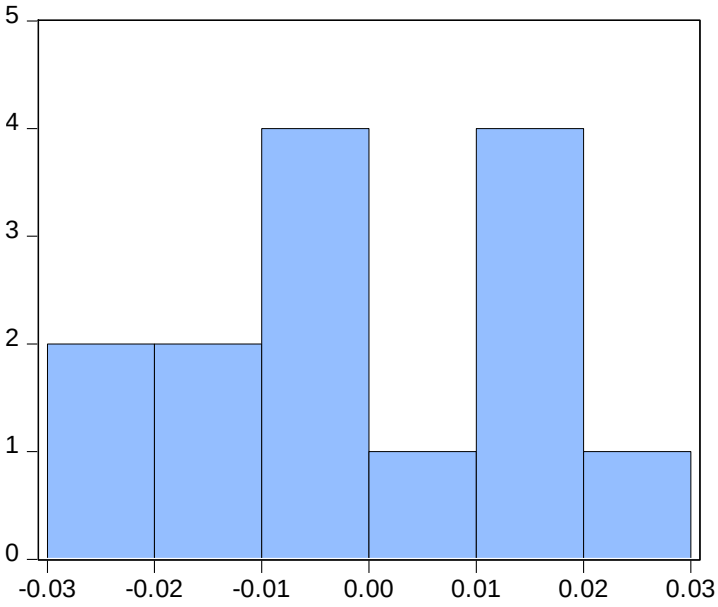
In the regression table II, first differenced variables are taken into calculation. Where GDP at producer's price is dependent variable and foreign financing, gross fixed capital formation, machinery imports, net

FDI, remittance and total investment are independent variables. Total investment is significant in 5 percent. Net FDI is not significant even in the 10 percent significance level. But is has positive impact in GDP of Nepal. 85 percent variation in the dependent variable is explained by the independent variables. Probability of the regression equation is less than 5 percent.

i. Normality Test

Null hypothesis: Residuals are normally distributed.

Alternative hypothesis: Residuals are not normally distributed.



Series: Residuals	
Sample 1997 2018	
Observations 14	
Mean	-1.95e-17
Median	-0.002374
Maximum	0.028318
Minimum	-0.024016
Std. Dev.	0.015780
Skewness	0.119611
Kurtosis	1.992132
Jarque-Bera	0.625931
Probability	0.731275

Here the probability value of Jarque-Bera is 0.731275 which is greater than 5 percent, so, we accept the null hypothesis which says that the residuals of our model follow the normal distribution.

Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.028717	Prob. F(2,5)	0.4225
Obs*R-squared	4.081382	Prob. Chi-Square(2)	0.1299

Here p value of chi-square is more than 5 percent so there is no serial auto correlation.

ii. Heteroskedasticity test

If there is heteroskedasticity in the data we will have biased standard error and spurious results. As a result we will have incorrect conclusion about the significance of regression coefficients.

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.182455	Prob. F(6,7)	0.4107
Obs*R-squared	7.047048	Prob. Chi-Square(6)	0.3165
Scaled explained SS	0.873950	Prob. Chi-Square(6)	0.9899

Here, Prob. Chi-Square (10) of observed R squared is 0.3165, which is greater than 0.05 percent, the data is homoscedastic.

6.5. Model I

Net FDI=a+bt+cFf+dGDP

Where

Net FDI=FDI+ out flow of Dividend/share of FDI

Ff=Foreign Financing

GDP= GDP at producer's price

i. Co-integrating Relationship

To analyze the impact of independent variables on dependent variable, Johansen co-integration test of the level data is used in e-views. Lag 1 is selected by the lag selection criteria. Here, all the variables are non-stationery at level and stationery at first difference. The Johansen co-integration test result has shown below.

Steps in e-views: Lag selection=select/open as group/proc/make auto regression/standard VAR/ok/view/lag structure/lag length criteria/ok/* indicates lag order selected by the criterion.

At the part 1, unrestricted co-integration Rank Test (Trace) and the part 2, Max Eigen statistics are shown, there is at least 1 co-integrated equation. Thus, there is long run relationship among the variables.

In the third part of the table, Normalized co integrating coefficients (standard error in parentheses) has shown. Here ln net FDI is possisoned as dependent variable. In the long run foreign financing has positive impact and GDP at producer's price has negative impact in net FDI on average, ceteris paribus.

Date: 12/16/20 Time: 15:50
Sample (adjusted): 1998 2018
Included observations: 12 after adjustments
Trend assumption: Linear deterministic trend
Series: LN_NET_FDI LN_FOREIGN_FINANCING LN_GDP_AT_PRODUCER_S_PRICE
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**

None *	0.951338	44.94237	29.79707	0.0005
At most 1	0.480714	8.668023	15.49471	0.3970
At most 2	0.064837	0.804407	3.841466	0.3698

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.951338	36.27435	21.13162	0.0002
At most 1	0.480714	7.863615	14.26460	0.3927
At most 2	0.064837	0.804407	3.841466	0.3698

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

1 Cointegrating Equation(s):	Log likelihood	38.85840	

Normalized cointegrating coefficients (standard error in parentheses)

LN_NET_FDI	LN_FOREIGN _FINANCING	LN_GDP_AT_ PRODUCER_S _PRICE
1.000000	-4.036926	1.648225
	(0.49130)	(0.36997)

Open as group/view/co-integration test/Johansen system co-integration test/lag intervals 1/ok

ii. Vector Error Correction Model

Since there is long run association between the variables, we can run the vector error correction model. For this level data are used for calculation. The model automatically converts the variables at first difference.

Dependent Variable: D(LN_NET_FDI)
Method: Least Squares (Gauss-Newton / Marquardt steps)
Date: 12/16/20 Time: 16:05
Sample (adjusted): 1998 2018

Included observations: 12 after adjustments
D(LN_NET_FDI) = C(1)*(LN_NET_FDI(-1) - 4.03692551935
*LN_FOREIGN_FINANCING(-1) + 1.64822514331
*LN_GDP_AT_PRODUCER_S_PRICE(-1) + 8.82672233632) + C(2)
*D(LN_NET_FDI(-1)) + C(3)*D(LN_FOREIGN_FINANCING(-1)) + C(4)
*D(LN_GDP_AT_PRODUCER_S_PRICE(-1)) + C(5)

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-1.179330	0.112839	-10.45141	0.0000
C(2)	0.158440	0.080810	1.960640	0.0907
C(3)	-2.036861	0.810459	-2.513219	0.0402
C(4)	1.048713	1.843789	0.568782	0.5873
C(5)	0.304678	0.185723	1.640498	0.1449

R-squared	0.961262	Mean dependent var	0.254657
Adjusted R-squared	0.939127	S.D. dependent var	0.759969
S.E. of regression	0.187504	Akaike info criterion	-0.215698
Sum squared resid	0.246104	Schwarz criterion	-0.013654
Log likelihood	6.294189	Hannan-Quinn criter.	-0.290502
F-statistic	43.42566	Durbin-Watson stat	3.442762
Prob(F-statistic)	0.000050		

Open as group/proc/vector auto regression/vector error correction/1 lag/ok/proc/make system/order by variable/copy first/quick/estimate equation/paste/ok.

C(1) is the error correction term. Since the c(1) is negative in sign and significant, there is a long run causality running from independent variables to dependent variable.

For short run causality,

Null hypothesis: C(3)=0

Wald Test:
Equation: Untitled

Test Statistic	Value	Df	Probability
t-statistic	-2.513219	7	0.0402
F-statistic	6.316271	(1, 7)	0.0402
Chi-square	6.316271	1	0.0120

Since the probability value of Chi-square is less than 5 percent, there is short run causality running from foreign financing to net FDI.

Again

Null hypothesis: C(4)=0

Wald Test:
Equation: Untitled

Test Statistic	Value	Df	Probability
t-statistic	0.568782	7	0.5873
F-statistic	0.323513	(1, 7)	0.5873
Chi-square	0.323513	1	0.5695

Since the probability value of Chi-square is more than 5 percent, there is no short run causality running from GDP at producer's price to net FDI.

Steps=view/coefficient diagnostic/wald test/put c(value)=0/ ok

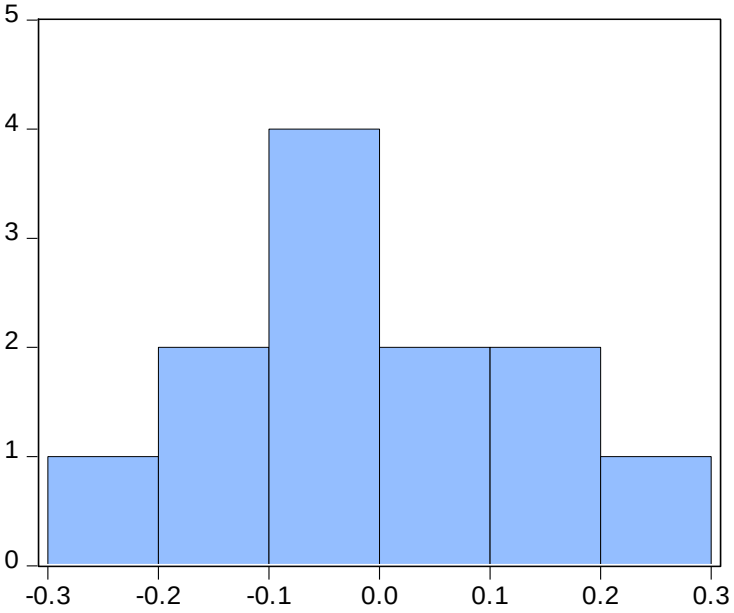
As conclusion, there is long run causality running from independent variables to dependent variable. On the other hand, there is short run causality running from foreign financing to GDP at producer's price.

iii. Diagnostic Check

Since R^2 is more than 90 percent and the p value of F-statistic is less than 5 percent, our model is fitted well.

P value of f-statistic is significant in 5 percent.

Normality test



Series: Residuals	
Sample 1998 2018	
Observations 12	
Mean	1.57e-16
Median	-0.024406
Maximum	0.216657
Minimum	-0.294207
Std. Dev.	0.149576
Skewness	-0.216392
Kurtosis	2.454152
Jarque-Bera	0.242626
Probability	0.885756

Since the probability value of Jarque-Bera is greater than 5 percent, the residual of the model follow the normal distribution.

Heteroskedasticity test:

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.992726	Prob. F(6,5)	0.5138
Obs*R-squared	6.523727	Prob. Chi-Square(6)	0.3671
Scaled explained SS	1.614021	Prob. Chi-Square(6)	0.9516

Since the p value of observed R-squared is greater than 5 percent, the data is homoscedastic.

Serial Correlation test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	3.312578	Prob. F(2,5)	0.1213
Obs*R-squared	6.838779	Prob. Chi-Square(2)	0.0327

Since the p value of observed R-squared is less than 5 percent, error terms are correlated. This may be due to insufficient time series data i.e., the data of the few time periods.

Chapter: VII

Summary, Conclusion and Recommendation

7.1 Summary and Conclusion

This chapter includes the summary of research findings and conclusion. It summarizes the findings based on which recommendations for this study have been made. The purpose of this study is to observe and analyze the present situation of FDI, BIPPA agreed countries and also its contribution in economic growth of Nepal.

The result obtained from the above computation shows that the Nepal's Economic Growth is mainly affected by total investment. Moreover, foreign financing, net FDI and remittance also have positive impact in GDP at producer's price.

The major findings of this study can also be listed as following:

- The result obtained from the above computation shows that Nepal's GDP at producer's price is affected by total investment (p value 0.0097) whereas foreign financing, net FDI and remittance also have positive impact (although they are insignificant in 10 percent significance level) in GDP at producer's price with the regression coefficient 0.060, 0.014 and 0.130 respectively.
- Since there is one co-integrated equations in the model as indicated by the Johansen co-integration test, the variables: net FDI, GDP at producer's price and total foreign financing move together i.e., there is long run relationship among the variables.

7.2 Recommendations

Depending upon the research findings, the following recommendations are proposed:

- As that Nepal's GDP at producer's price is affected by total investment, the following measures should be applied:

b) To increase total Investment, government should focus on the determinants of investment like interest rates, corporate tax etc. Moreover, government should prioritize the investment sector and make long-term strategy of investment in infrastructure, education, research and economic development.

- Since the net FDI is affected by foreign financing, the government as the policy maker should do the following:

  a) To attract FDI government should increase foreign financing and such amount should invest in the productive sectors like manufacturing industries, transport sector, energy sectors etc. by which FDI inflow increases and the economic prosperity is achieved.

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Appendix-1

The Major Law Regarding FDI

- Industrial Policy, 2011
- Foreign Investment and Technology Transfer Act, 2019
- Investment Board Act, 2011,
- Foreign Investment Policy 2015
- Industrial Enterprises Act, 2016
- National Agriculture Policy, 2004
- Hydro-power development Policy, 2001,
- Telecommunication Policy, 2004,
- Tourism Policy, 2008
- Aviation Policy, 2006,
- Commerce Policy, 2008,
- Electricity Act, 1992,
- Nepal Petroleum Act, 1983
- Private Investments in Infrastructures Act, 2006,
- Mines and Mineral Resources Act, 1985
- Bank and Financial Institutions Act, 2006,
- Companies Act, 2006,
- Foreign Exchange (Regulation) Act, 1963,
- Contract Act, 2000,
- Arbitration Act, 1999,
- Income Tax Act, 2002,
- Labor Act, 1991,
- Privatization Act, 1992 and many other sectorial Policies and Acts

Appendix-2

FDI Commitment by BIPPA Agreed and Non-Agreed Countries (in Million Rupees)

Fiscal Year	TOTAL FDI Commitment	BIPPA Countries	BIPPA Percent	NON BIPPA Countries	NON BIPPA Percent
2001	3002.56	2049.52	68.26	953.04	31.74
2002	1209.65	189.72	15.68	1019.93	84.32
2003	1793.77	1004.31	55.99	789.46	44.01
2004	2764.80	2425.07	87.71	339.73	12.29
2005	1635.77	1448.71	88.56	187.06	11.44
2006	2606.31	1870.54	71.77	735.77	28.23
2007	3185.98	2651.36	83.22	534.62	16.78
2008	9812.60	5896.53	60.09	3916.07	39.91
2009	6255.09	3963.92	63.37	2291.17	36.63
2010	9100.00	6843.89	75.21	2256.11	24.79
2011	10053.21	8721.78	86.76	1331.43	13.24
2012	7138.31	3368.38	47.19	3769.93	52.81
2013	19818.73	5712.17	28.82	14106.56	71.18
2014	20132.42	14277.97	70.92	5854.45	29.08
2015	67455.04	40779.04	60.45	26676.00	39.55
2016	15254.33	10785.60	70.71	4468.73	29.29
2017	15206.46	8860.30	58.27	6346.16	41.73
2018	55730.38	51875.61	93.08	3854.77	6.92

Source: Department of Industry.

Appendix 3

Research Variables

Rupees in Million

Year	GDP at Producers Price	Remittance	Total Approved FDI	Net FDI	Total Investment	Gross Fixed Capital Formation	Total Machinery Imports
1996	248913.0	4283.6	2219.9	388.0	68017.0	56081.0	15301.1
1997	280513.0	5595.0	2395.5	1621.0	71084.0	60794.0	13794.9
1998	300845.0	6987.8	2000.3	685.0	74728.0	65375.0	16734.7
1999	342036.0	10314.6	1666.4	578.0	70061.0	65269.0	18063.7
2000	379488.0	12662.3	1417.6	233.0	92272.0	73324.0	20547.9
2001	441519.0	47220.0	3002.6	-33.0	98648.7	84750.6	23027.8
2002	459443.0	47540.0	1209.7	-282.3	93019.5	89889.3	19513.8
2003	492231.0	54200.0	1793.8	961.4	105383.2	98072.8	20702.1
2004	536749.0	58600.0	2764.8	0.0	131670.5	109181.3	25694.2
2005	589412.0	65500.0	1635.8	136.0	155906.7	117538.9	26262.1
2006	654084.0	97700.0	2606.3	-469.7	175632.8	135532.0	26194.6
2007	727827.0	100100.0	3186.0	362.3	208778.5	153336.9	36357.4
2008	815658.0	142700.0	9812.6	293.9	247272.0	178445.5	48006.4
2009	988272.0	209700.0	6255.1	1829.2	313028.7	211039.0	68009.5
2010	1192774.0	231700.0	9100.0	2852.0	456489.3	264887.5	84517.2
2011	1366954.0	253600.0	10053.2	6437.1	519268.2	292730.4	85331.5
2012	1527344.0	359600.0	7138.3	9195.4	526889.0	317184.6	82413.6
2013	1695011.0	434600.0	19818.7	9081.9	632601.2	382971.8	100203.1
2014	1964540.0	543300.0	20132.4	3194.6	808757.9	462013.4	124901.1
2015	2130200.0	617300.0	67455.0	4382.6	831982.6	595822.6	172378.4
2016	2253163.0	665100.0	15254.3	5920.9	763416.4	647293.9	189764.1
2017	2674493.0	695500.0	15206.5	13503.9	1208671.5	840692.7	247006.8
2018	3031034.0	755060.0	55730.4	17504.6	1556430.3	1051957.0	314002.5

Source: Macroeconomic Dashboard, Ministry of Finance, Nepal.

Appendix 4

Data After Taking Natural Log

Year	ln_GDP	ln_remittence	ln_total_approved_FDI	ln_net_FDI	ln_total_investment	ln_govt_spending	ln_gross_fixed_capital_formation	ln_foreign_financing
1996	12.4249	8.3625	7.7052	5.9610	11.1275	10.7481	10.9346	9.5672
1997	12.5444	8.6296	7.7814	7.3908	11.1716	10.8342	11.0152	9.6179
1998	12.6144	8.8519	7.6010	6.5294	11.2216	10.9352	11.0879	9.7085
1999	12.7427	9.2413	7.4184	6.3596	11.1571	10.9951	11.0863	9.6921
2000	12.8466	9.4464	7.2567	5.4510	11.4325	11.1015	11.2026	9.7713
2001	12.9980	10.7626	8.0072	#NUM!	11.4993	11.2877	11.3475	9.8415
2002	13.0378	10.7693	7.0981	#NUM!	11.4406	11.2907	11.4063	9.5739
2003	13.1067	10.9004	7.4921	6.8684	11.5654	11.3386	11.4935	9.6732
2004	13.1933	10.9785	7.9247	#NUM!	11.7881	11.4014	11.6008	9.8476
2005	13.2869	11.0898	7.3999	4.9127	11.9570	11.5382	11.6745	10.0714
2006	13.3910	11.4897	7.8657	#NUM!	12.0762	11.6163	11.8170	10.0007
2007	13.4978	11.5139	8.0665	5.8925	12.2490	11.8026	11.9404	10.1602
2008	13.6118	11.8685	9.1914	5.6832	12.4182	11.9913	12.0920	10.2854
2009	13.8037	12.2534	8.7412	7.5116	12.6541	12.2998	12.2598	10.5010
2010	13.9918	12.3532	9.1160	7.9558	13.0313	12.4672	12.4871	10.8152
2011	14.1281	12.4435	9.2156	8.7698	13.1602	12.5960	12.5870	10.9682
2012	14.2390	12.7927	8.8732	9.1265	13.1747	12.7342	12.6672	10.8569
2013	14.3432	12.9822	9.8944	9.1140	13.3576	12.7901	12.8557	10.7621
2014	14.4908	13.2054	9.9101	8.0692	13.6033	12.9832	13.0433	11.0055
2015	14.5717	13.3331	11.1192	8.3854	13.6316	13.1832	13.2977	11.0620
2016	14.6278	13.4077	9.6326	8.6862	13.5456	13.4605	13.3806	11.2118
2017	14.7993	13.4524	9.6295	9.5107	14.0050	13.8633	13.6420	11.4070
2018	14.9244	13.5346	10.9283	9.7702	14.2579	14.0616	13.8662	11.7872

Source: Researcher's own construction