

**TREND AND PATTERN OF FOREIGN DIRECT INVESTMENT
IN NEPAL (FY 1996/97-FY 2016/17)**

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LETTER OF RECOMMENDATION

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ABSTRACT

Foreign direct investment is an investment made by a company or individual who has an entity in one country, in the form of controlling ownership in business interests in another country. FDI could be in the form of either establishing business operations or by entering into joint ventures by mergers and acquisitions, building new facilities etc. Foreign Direct Investment plays a significant role in the process of economic development. Funds from foreign countries could be invested in shares, properties, ownership / management or collaboration.

The study is related to the analysis of trend and patterns of FDI in Nepal(FY 1996-FY2016). The study shows that FDI to Nepal during FY 1996/97-FY2015/16 is Rs 190,803.6 millions. Likewise, FDI has covered an average of 0.632 percent in the total GDP of Nepal. Out of total FDI, actual FDI is Rs.76943.9 million which is 41.37% of the total approved FDI. The volume of FDI to Nepal is taking a pattern of increasing and decreasing throughout the study period.

Nepal has been receiving FDI in the various sectors. Due to the political instability and policy bottlenecks, there was low amount of FDI whereas with respect to time and political stability as well as various policy interventions for investment friendly environment the volume of FDI has started a rapid ascent from 2008 FY. Nepal has been receiving FDI in various sectors like energy sector, manufacture sector, service sector, tourism, mining, agro and forest based sectors as well as construction sectors. Out of these sectors energy as well as service sectors are really attracting foreign investors. While looking after industries on the basis of scale of investment, small scale industries have been receiving large amount of FDI compared to medium and large scale industries. There are huge numbers of employment opportunities in small scale industries particularly in service and tourism sector employing large number of Nepalese as well as foreigners. From this we can see that contribution of FDI to Nepal is vital for economic development of the country.

The study attempts to see the impact of FDI on GDP and trade, export and import of Nepal. The impact of FDI on GDP and trade are found to be positive and significant. Using regression analysis, it is found that there is positive impact of FDI on GDP. From the regression analysis the value of R^2 is 0.522 implying that predictor

FDI accounts 52.2 percent variation in the total GDP. The slope of FDI is 75.121 which imply that when FDI inflow increase by 1 million, GDP increases by 75.121millions. Similarly, there is positive correlation between FDI and trade. The value of R^2 is 0.567 implying that predictor FDI accounts 56.7 percent variation in the total trade. The slope of FDI is Rs 36.215 which imply that when FDI inflow increase by 1 million, trade increases by Rs 36.215 million. Likewise, the impact of FDI on export and import are found to be positive and significant. Using regression analysis, it is found that there is positive impact of FDI on export. The value of R^2 is 0.526 implying that predictor FDI accounts 52.6 percent variation in export. The slope of FDI is 2.072 which imply that when FDI inflow increase by Re.1 million, export increases by Rs.2.072 millions. Similarly, there is positive correlation between FDI and Import. The value of R^2 is 0.554 implying that predictor FDI accounts 55.4 percent variation in the total import. The slope of FDI is 34.143 which imply that when FDI inflow increase by Re.1 million, total import increases by Rs.34.143 millions.

The amount of actual FDI is less compared to approved FDI due to the various reasons like political instability, legal uncertainties, policy hurdles, poor infrastructure, militancy of trade unions, etc. If such bottlenecks are solved then the amount actual FDI would be higher leading to the larger number of foreign investors not only for the market seeking but also resource seeking ones.

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ABBREVIATIONS/ACRONYMS

AFTA	ASEAN Free Trade Area
ASEAN	Association of Southeast Asian Nations
ATTA	Afghan Transit Trade Agreement
BIT	Bilateral Investment Treaty
BOP	Balance of Payment
CEFTA	Central European Free Trade Agreement
DOI	Department of Industry
DW	Durbin Watson
FA	Foreign Aid
FDI	Foreign Direct Investment
FII	Foreign Intuitional Investment
FPI	Foreign Portfolio Investment
FY	Fiscal Year
GDP	Gross Domestic Product
GNI	Gross National Income
GoN	Government of Nepal
HDI	Human Development Index
ICT	Information Communication and Technology
IMF	International Monetary Fund
IT	Information Technology
LAIA	Latin American Integration Association
LDC	Least Development Country
MENA	Middle East and North Africa
MITC	Maine International Trade Centre

MNC	Multinational Corporations
MNO	Multinational Organizations
MoF	Ministry of Finance
NPC	National Planning Commission
NRB	Nepal Rastra Bank
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Square
SEZ	Special Economic Zone
UNCTAD	United Nations Conference on Trade and Development
WHO	World Health Organization

CHAPTER I

INTRODUCTION

1.1 Background

Nepal is one of the developing countries with population 28.8 million, growing at a rate of 1.60 percent annually. Per capita income is estimated at \$ 1004 (World Bank, 2017), reflecting an equally unsatisfactory standard of living. About 21.6 percent of the population is forced to live below the poverty line (Economic Survey, 2017). The challenge of economic development has been further complicated by its limited or almost unexplained endowment of natural resources, landlocked location and rugged terrain and social infrastructure. Nepal needs investment for infrastructure development, therefore, are quite substantial. But at the same time public funds available for investment in infrastructure are limited. The country's fiscal resource base is small but unlikely to grow rapidly. This leaves the government highly dependent on external development assistance. Fortunately, international investors and development partners have fully supported their development plans and programs. For a least developed-country (LDC) like Nepal with huge saving-investment gap; limited, albeit growing, revenue to gross domestic product (GDP) ratio; and limited amount of foreign aid flow, foreign direct investment (FDI) is considered an indispensable mode of development financing. Although FDI is traditionally viewed as foreign investments made in manufacturing and services sectors, which undoubtedly contribute to employment opportunities as well as economic growth, they are increasingly attracted by host countries for meeting financing requirements for large infrastructure projects. This is an area in which foreign investors used to shy away from investing in the past due to various risks associated with such projects resulting from long gestation and pay back periods.

In the context of Nepal, although FDI is generally welcome in all sectors, due to acute dearth of resources for infrastructure financing, it has become an imperative in the latter sector. It must be noted that the utility of foreign investment for a country like Nepal does not end there. It is an instrument for the transfer of

technology from the technology-rich countries to technology-deficient countries. Similarly, leadership and managerial skills transferred by foreign investors and eventual expansion of local knowledge and skill base, whether at the enterprise level or at the sectoral level, are considered yet another spillover impact of foreign investment. FDI plays a significant role in the process of economic development. Funds from foreign country could be invested in shares, properties, ownership / management or collaboration. Based on this, Foreign Investments are classified as given below.

- i. Foreign Direct Investment (FDI): FDI is an investment made by a company or individual who use an entity in one country, in the form of controlling ownership in business interests in another country. FDI could be in the form of either establishing business operations or by entering into joint ventures by mergers and acquisitions, building new facilities etc.
- ii. Foreign Portfolio Investment (FPI): Foreign Portfolio Investment (FPI) is an investment by foreign entities and non-residents in Nepalese securities including shares, government bonds, corporate bonds, convertible securities, infrastructure securities etc. The intention is to ensure a controlling interest in Nepalese at an investment that is lower than FDI, with flexibility for entry and exit.
- iii. Foreign Institutional Investment (FII): Foreign Portfolio Investment (FPI) is an investment by foreign entities in securities, real property and other investment assets. Investors include mutual fund companies, hedge fund companies etc. The intention is not to take controlling interest, but to diversify portfolio ensuring hedging and to gain high returns with quick entry and exit. The differences in FPI and FII are mostly in the type of investors and hence the terms FPI and FII are used interchangeably. According to international guidelines based on the recommendations by the IMF in its Balance of Payments Manual (fifth editions, 1993) FDI is defined as international investment that reflects the objective of a resident entity in one economy (foreign direct investor or parent enterprise) obtaining a lasting interest and control in an enterprise

resident in an economy other than that of the foreign direct investor. “Lasting interest” implies the existence of a long-term relationship between a direct investor and the enterprise and a significant degree of influence on the management of the enterprise. The BOP Manual states that the direct investor should own or control at least 10 percent of the ordinary shares, voting power or equivalent.

The three basic components of FDI flows are as follows:

- i. Equity Capital: This constitutes the value of the MNC’s investment in shares of an enterprise in a foreign country. An equity capital stake of 10 percent or more, is normally considered as a threshold for the control of assets.
- ii. Reinvested earnings: This consists of the sum of direct investor’s share (in proportion to direct equity participation) of earnings not distributed as dividends by subsidiaries or associates, and earnings of branches not remitted to the direct investor.
- iii. Other direct investment capital or intercompany debt transactions: This cover the borrowing and lending of funds including debt securities and supplier’s credits between direct investors and subsidiaries, branches and associates.

FDI flow with a negative sign indicate that at least one of three components of FDI is negative and is not offset by positive amounts of the other components.

FDI plays a catalytic role in economic growth. It is one of the major source of capital formation and helps technology to spillover, supports human capital formation, enhances international trade integration, creates competitive environment and strengthens enterprise development. There are two common motives of foreign direct investment: resource-seeking and efficiency-seeking (Dunning, 1993). Moreover, FDI also seeks strategic assets in a local economy- brands, new technology or distribution channel. Developing countries, emerging countries and countries in transformation have come to consider FDI as a source of economic development and modernization, income growth and employment (OECD, 2002).

With increasing globalization and liberalization especially after 1980s, the world FDI flow have grown rapidly and remained significant in recent years. The World Investment Report 2017 shows a strong rise in FDI inflows in 2015 and contraction in 2016. The FDI flows globally decreased by two percent to \$1.75 trillion in 2016. Developed economies accounted for 59 percent in total inflows, a growing share in 2016. Flows to developing economies were especially hard hit, with a decline of 14 percent to \$646 billion in 2016. FDI flows to LDCs and structurally weak economies remain even volatile and low. The South Asia received only 3.1 percent of the total FDI inflows in 2016. India is a leading host of FDI in South Asia is followed by Bangladesh, Pakistan and Srilanka. The FDI position of Nepal is substantially low in comparison with other peers, which is just above Bhutan. Nepal's share in the world total FDI is only 0.01 percent. (SAWTEE, 2013)

1.2 Statement of the Problem

Economic development of any country depends upon the utilization of available resources, the ability of the people to exploit the available natural resources and others. But it is unable to utilize this all to their full extent due to the lack of domestic sources of capital and technology. People are moving around the vicious circle of poverty, level of income, saving and investment is very low. To increase these all, aid stands as an inseparable actor in the developing countries like Nepal. Foreign direct investment has been prominent role for the economic development of Nepal. There is hardly any sector which has not received some form of external investment and in which many investors have been included. With its own sources Nepal unable/couldn't move ahead in the path of development. Nepal is facing the problems of low level of living standards, low level of agricultural productivity, high rate of population, high rate of unemployment, low ability to pay for tax, high gap between revenue, high level of trade deficit, etc. Therefore, country needs foreign investment to overcome the problems.

To generate the employment, enhance the living standards and uplift of all domestic savings only needs huge amount of public expenditure, these makes the foreign investment as necessary thing in Nepal. There is belief foreign investment brings physical and financial as well as technical knowledge, skilled personal,

organization expenditure, advanced production techniques for increasing productivity and market information. In the country like Nepal, we repeatedly hear the government being effortful to receive more foreign direct investment. Rapid increment in foreign investment is observed every year but it has not been fully utilized. It may happen due to inefficient administration, low absorptive capacity, corruption, delay in implementation of projects from recipient side and vested interest, their strategic motives etc. from various sides.

This study has been carried out to seek answer to the following questions:

- i. What is the stock of FDI in Nepal?
- ii. What is the difference between Approved FDI and Actual FDI?
- iii. What is the contribution of FDI in the different sectors of Nepal?
- iv. What is the impact of FDI on GDP, trade, export and import in Nepal?

1.3 Objectives of the Study

The basic objective of the study is to provide a knowledge regarding the situation of FDI in Nepal. In this study an attempt has been made to analyze the role of foreign investment in general and specifically the composition, effectiveness, trend and pattern of Foreign Direct Investment on the Nepalese economy. The specific objectives are:

- i. To analyze the trend and pattern of FDI in Nepal
- ii. To identify the difference between approved and actual FDI
- iii. To identify the contribution of FDI in different sectors
- iv. To examine the impact of FDI on GDP, Trade, Import and Export of Nepal

1.4 Significance of the Study

Foreign direct investment plays an important role in Nepal's development apart from its contribution to sustaining public investment. FDI is crucial in meeting the objective of poverty reduction, as articulated in the recent government's three- and five-years plan, through achieving high and sustainable rates of economic growth and by underpinning critical sector programs and activities. In the context of the Nepalese economy, characterized by structural bottlenecks, large fiscal and

external deficit and significant imbalance between saving and investment ratios, the role of foreign direct investment is particularly significant as it helps to:

- i. The study provides a clear-cut vision about the trend and pattern of FDI inflows in Nepal.
- ii. The study also clarifies the situation of approved FDI and actual FDI.
- iii. The study also identifies the contribution made by FDI in various sectors of Nepal.
- iv. The study also helps the researchers, planners and other policymakers to bring on more FDI or reduce dependence on it. As, study is focused on impact of FDI in GDP.

1.5 Limitations of the Study

The limitations of the study are as follows:

- i. The study is based on data and information available from secondary sources like Economic Survey, DOI, NRB Reports.
- ii. The study is based on the time limit between 1996-2016 because after restoration of multiparty democracy and implementation of liberalization, privatization and globalization in Nepal as there has been free flow of FDI.
- iii. Due to complicated technique to remove the autocorrelation between error terms and time limitation, linear regression model is fitted through their is autocorrelation.

1.6 Organization of the Study

This study has been organized in five chapters. Chapter 1 is the introduction to the topic under the study, Chapter 2 is assigned as literature review then in Chapter 3 research design and methodology has been explained and data presentation and analysis has been carried out in Chapter 4 and finally Chapter 5 has been organized to summarize and conclude the study. The appendix and bibliography are attached at the end of the study.

CHAPTER II

REVIEW OF THE LITERATURE

2.1 Introduction

This chapter presents the literature review for the study. The chapter is divided in four sections. Section 2.1 contains introduction, 2.2 overview of related studies which include books, research paper and thesis review and Section 2.3 contains theories' underpinning FDI and 2.4 contains research gap. The literature reviewed was essential in informing the variables that were selected later on in the methodology section.

2.2 Critical Review of the Theories

2.2.1 Production Cycle Theory of Vernon

Production cycle theory developed by Vernon in 1966 was used to explain certain types of foreign direct investment made by U.S. companies in Western Europe after the Second World War in the manufacturing industry. Vernon believes that there are four stages of production cycle: innovation, growth, maturity and decline. According to Vernon, in the first stage the U.S. transnational companies create new innovative products for local consumption and export the surplus in order to serve also the foreign markets. According to the theory of the production cycle, after the Second World War in Europe has increased demand for manufactured products like those produced in USA. Thus, American firms began to export, having the advantage of technology on international competitors. If in the first stage of the production cycle, manufacturers have an advantage by possessing new technologies, as the product develops also the technology becomes known. Manufacturers will standardize the product, but there will be companies that you will copy it. Thereby, European firms have started imitating American products that U.S. firms were exporting to these countries. US companies were forced to perform production facilities on the local markets to maintain their market shares in those areas. This theory managed to explain certain types of investments in Europe Western made by U.S. companies between 1950-1970. Although there are areas

where Americans have not possessed the technological advantage and foreign direct investments were made during that period.

2.2.2 The Theory of Exchange Rates on Imperfect Capital Markets

This is another theory which tried to explain FDI. Initially the foreign exchange risk has been analyzed from the perspective of international trade. Itagaki (1981) and Cushman (1985) analyzed the influence of uncertainty as a factor of FDI. In the only empirical analysis made so far, Cushman shows that real exchange rate increase stimulated FDI made by USD, while a foreign currency appreciation has reduced American FDI. Cushman concludes that the dollar appreciation has led to a reduction in U.S. FDI by 25 percent. However, currency risk rate theory cannot explain simultaneous foreign direct investment between countries with different currencies. The sustainers argue that such investments are made in different times, but there are enough cases that contradict these claims.

2.2.3 The Internalization Theory

This theory tries to explain the growth of transnational companies and their motivations for achieving foreign direct investment. The theory was developed by Buckley and Casson, in 1976 and then by Hennart, in 1982 and Casson, in 1983. Initially, the theory was launched by Coase in 1937 in a national context and Hymer in 1976 in an international context. In his Doctoral Dissertation, Hymer identified two major determinants of FDI. One was the removal of competition. The other was the advantages which some firms possess in a particular activity (Hymer, 1976). Buckley and Casson, who founded the theory demonstrates that transnational companies are organizing their internal activities so as to develop specific advantages, which then to be exploited. Internalisation theory is considered very important also by Dunning, who uses it in the eclectic theory, but also argues that this explains only part of FDI flows. Hennart (1982) develops the idea of internalization by developing models between the two types of integration: vertical and horizontal. Hymer is the author of the concept of firm-specific advantages and demonstrates that FDI take place only if the benefits of exploiting firm-specific advantages outweigh the relative costs of the operations abroad. According to Hymer (1976) the MNE appears due to the market imperfections that led to a

divergence from perfect competition in the final product market. Hymer has discussed the problem of information costs for foreign firms respected to local firms, different treatment of governments, currency risk (Eden and Miller, 2004). The result meant the same conclusion: transnational companies face some adjustment costs when the investments are made abroad. Hymer recognized that FDI is a firm-level strategy decision rather than a capital-market financial decision.

2.2.4 The Eclectic Paradigm of Dunning

The eclectic theory developed by professor Dunning is a mix of three different theories of direct foreign investments (O-L-I):

- i. “O” from Ownership advantages: This refer to intangible assets, which are, at least for a while exclusive possesses of the company and may be transferred within transnational companies at low costs, leading either to higher incomes or reduced costs. But TNCs operations performed in different countries face some additional costs. Thereby to successfully enter a foreign market, a company must have certain characteristics that would triumph over operating costs on a foreign market. These advantages are the property competences or the specific benefits of the company. The firm has a monopoly over its own specific advantages and using them abroad leads to higher marginal profitability or lower marginal cost than other competitors. (Dunning, 1973, 1980, 1988).

There are three types of specific advantages:

- i. Monopoly advantages in the form of privileged access to markets through ownership of natural limited resources, patents, trademarks;
 - ii. Technology, knowledge broadly defined so as to contain all forms of innovation activities
 - iii. Economies of large size such as economies of learning, economies of scale and scope, greater access to financial capital;
- ii. “L” from Location: When the first condition is fulfilled, it must be more advantageous for the company that owns them to use them itself rather than sell them or rent them to foreign firms. Location advantages of different

countries are de key factors to determining who will become host countries for the activities of the transnational corporations.

The specific advantages of each country can be divided into three categories:

- i. The economic benefits consist of quantitative and qualitative factors of production, costs of transport, telecommunications, market size etc.
 - ii. Political advantages: common and specific government policies that affect FDI flows
 - iii. Social advantages: includes distance between the home and home countries, cultural diversity, attitude towards strangers etc.
- iii. “I” from Internalization: Supposing the first two conditions are met, it must be profitable for the company the use of these advantages, in collaboration with at least some factors outside the country of origin (Dunning, 1973, 1980, 1988). This third characteristic of the eclectic paradigm OLI offers a framework for assessing different ways in which the company will exploit its powers from the sale of goods and services to various agreements that might be signed between the companies. As cross-border market Internalisation benefits is higher the more the firm will want to engage in foreign production rather than offering this right under license, franchise.

Eclectic paradigm OLI shows that OLI parameters are different from company to company and depend on context and reflect the economic, political, social characteristics of the host country. Therefore, the objectives and strategies of the firms, the magnitude and pattern of production will depend on the challenges and opportunities offered by different types of countries.

2.3 Reviews of Related Studies

Okuda (1994) in his study “Taiwan’s Trade and FDI policies and their effect on Productivity Growth” reviewed the course of Taiwan’s trade and FDI policies. The purpose of the study was to examine how these policies affected productivity of Taiwan’s manufacturing sector. As an indicator of productivity, TEP indices of the Taiwan manufacturing were calculated at the subsector level. It found out that the

TEP growth for manufacturing as a whole was 2.6 per cent per annum the electronics and machinery maintained high productivity performance while examining the relationship between TEP and trade and FDI liberalization policies was examined. The study concludes that the policies of the Taiwan government have generally been relevant.

Alhijazi and Yahya (1999) in his work, “Developing Countries and Foreign Direct Investment” analyzed the pros and cons of FDI for developing countries and other interested parties. This thesis scrutinizes the regulation of FDI as a means to balance the interests of the concerned parties, giving an assessment of the balance of interests in some existing and potential FDI regulations. The study also highlights the case against the deregulation of FDI and its consequences for developing countries. The study concludes by formulating regulatory FDI guidelines for developing countries.

Pawin (2001) in his study, “The Determinants of FDI Distribution across Manufacturing Activities in an Asian Industrializing Country: A Case of Japanese FDI in Thailand” identifies and investigates the ‘industry – level Determinants’ of FDI in the context of Asian industrializing countries by using the data on Japanese FDI in Thailand. The study examines the influences of location – specific characteristics of host industries such as factor endowments, trade costs, and policy factors. More distinctively, it examines the effect of vertical (input-output) linkages among Japanese firms. The study finds out that Japanese FDI in Thailand was not evenly distributed across manufacturing activities. Some capital / technological – intensive industries like rail equipment’s and air crafts did not receive any FDI during a specified period. On the other hand, other relatively labor – intensive industries like TV Radio, and communications equipment industry and motor vehicle industry received disproportionately large values of FDI.

Khor (2001) in his study, “Foreign Direct Investment and Economic Growth” investigates the casual relationship between FDI and economic growth. The findings of this thesis are that bidirectional causality exist, between FDI and economic growth in Malaysia i.e. while growth in GDP attracts FDI, FDI also contributes to an increase in output. FDI has played a key role in the diversification of the Malaysian

economy, as a result of which the economy is no longer precariously dependent on a few primarily commodities, with the manufacturing sector as the main engine of growth.

Taewon and Omar (2003) in their study, “The effects of FDI inflows and ICT infrastructure on exporting in ASEAN/ATTA countries: A comparison with other regional blocs in emerging markets”, explores the impact of both the increase in FDI inflows and the increase in information and communication technology infrastructure investments on exporting in ASEAN nations (the trade bloc of which is known as AFTA) compared with two other major trade blocs: CEFTA and LAIA. The analysis is based on data from cross – section of countries (26 emerging markets from three trade blocs) over time (from 1995 to 2000). The results show that the increase of investment in ICT infrastructure yields positive and significant returns in the national exporting level only for the ASEAN / AFTA and CEFTA sample. The impact of the increase of FDI inflows on export is significant only in the CEFTA and LAIA samples.

Klaus (2003) in his paper “Foreign Direct investment in Emerging Economies” focuses on the impact of FDI on host economies and on policy and managerial implications arising from this (potential) impact. The study finds out that as emerging economies integrate into the global economies international trade and investment will continue to accelerate. MNEs will continue to act as pivotal interface between domestic and international markets and their relative importance may even increase further. The extensive and variety interaction of MNEs with their host societies may tempt policy makers to micro – manage inwards foreign investment and to target their instruments at attracting very specific types of projects. Yet, the potential impact is hard to evaluate ex ante (or even ex post) and it is not clear if policy instruments would be effective in attracting specifically the investors that would generate the desired impact. The study concluded that the first priority should be on enhancing the general institutional framework such as to enhance the efficiency of markets, the effectiveness of the public sector administration and the availability of infrastructure. On that basis, then, carefully designed but flexible schemes of promoting new industries may further enhance the chances of developing internationally competitive business clusters.

Dunning (2004) in his study “Institutional Reform, FDI and European Transition Economies” studied the significance of institutional infrastructure and development as a determinant of FDI inflows into the European Transition Economies. The study examines the critical role of the institutional environment (comprising both institutions and the strategies and policies of organizations relating to these institutions) in reducing the transaction costs of both domestic and cross border business activity. By setting up an analytical framework the study identifies the determinants of FDI, and how these had changed over recent years.

Johannes (2004) in his work “The Effects of FDI Inflows on Host Country Economic Growth” discusses the potential of FDI inflows to affect host country economic growth. The paper argues that FDI should have a positive effect on economic growth as a result of technology spillovers and physical capital inflows. Performing both cross – section and panel data analysis on a dataset covering 90 countries during the period 1980 to 2002, the empirical part of the paper finds indications that FDI inflows enhance economic Growth in developing economies but not in developed economies. This paper has assumed that the direction of causality goes from inflow of FDI to host country economic growth. However, economic growth could itself cause an increase in FDI inflows. Economic growth increases the size of the host country market and strengthens the incentives for market seeking FDI. This could result in a situation where FDI and economic growth are mutually supporting. However, for the ease of most of the developing economies growth is unlikely to result in market – seeking FDI due to the low-income levels. Therefore, causality is primarily expected to run from FDI inflows to economic growth for these economies.

Jacinta (2004) in her study, “A Comparative Analysis of Japanese and American Foreign Direct Investment in Thailand” assesses the determinants of Japanese and American FDI in Thailand during 1970-2000. In this analysis, the short and long-term determinants of both FDI are estimated. This study concludes that, in the short and the long run, Japanese FDI is found to be driven by trade factors and the yen appreciation. While the American FDI is driven by market factor, specifically the income level of Thai people. Japanese FDI is trade – oriented, whereas the American FDI is market – seeking oriented.

Salisu (2004) in his study “The Determinants and Impact of Foreign Direct Investment on economic Growth in Developing Countries: A study of Nigeria” examines the determinants and impact of Foreign Direct Investment on economic Growth in Developing Countries using Nigeria as a case study. The study observed that inflation, debt burden, and exchange rate significantly influence FDI flows into Nigeria. The study suggests the government to pursue prudent fiscal and monetary policies that will be geared towards attracting more FDI and enhancing overall domestic productivity, ensure improvements in infrastructural facilities and to put a stop to the incessant social unrest in the country. The study concluded that the contribution of FDI to economic growth in Nigeria was very low even though it was perceived to be a significant factor influencing the level of economic growth in Nigeria.

Johannes (2004) in his study, “Foreign Direct investment and neighboring influences” evaluates the influences of a number of economic and socio – political influences of neighboring countries on the host country’s FDI attractiveness. Three groups, consisting of developed, emerging and African countries are evaluated, with the main emphasis on African countries. Results of the study indicate that an improvement in civil liberties and political rights, improved infrastructure, higher growth rate and a higher degree of openness of the host country, higher levels of human capital attract FDI to the developed countries but deter FDI in emerging and African countries-indicating cheap labour as a determinant of FDI inflows to these countries. Further, Oil – Owned countries in Africa’s attract more FDI than non – oil endowed countries – emphasizing the importance of natural resources in Africa.

Thai (2005) in his study, “The impact of Foreign Direct Investment and openness on Vietnamese economy” examines the impact of FDI on Vietnamese economy by using Partial Adjustment Model and time series data from 1976 to 2004. FDI is shown to have not only short run but also long run effect on GDP of Vietnam. The study also examines the impact of trade openness on GDP and it is found that trade is stronger than that of FDI.

Korhonen (2005) in her study “Foreign Direct Investment in a changing Political Environment” compares Finnish Investment during the restrictive period in

1984- 1997, with the liberal period in 1998-2002. The study reveals that the political environment of the firm in the host country may have a special role among the other parts of the firm's environment because of the supremacy of the host government to use its political power in order to intervene in FDI. The study states that TNC may not need to bargain alone but may lobby from its home government. Therefore, the study adds the concept of authority services to the list of TNC's bargaining techniques. The empirical results of the study suggest that the change in the political environment in Korea in 1998 had a clear impact on Finnish investment in Korea. The findings indicate that repeat investments had been engaged regardless of the investment policy liberalization, but the acquisitions had not taken place without the change in Korea's investment policy. The results also suggest that the modified strategy performance model can be successfully used to assess the impact of change in the firm's external environment. The results indicate that firms scan their political environment continuously in order to anticipate and respond to possible changes.

Rydqvist (2005), in his work "FDI and Currency Crisis: Currency Crisis and the inflow of Foreign Direct Investment" analyse if there are any changes in the flow of FDI before, during and after a currency crisis. The study found that no similarities in regions or year of occurrence of the currency crisis. The depth, length and structure of each currency crisis together with using the right definition of a currency crisis are two important factors relating to the outcomes in this study.

Miguel (2006) in his study "Is Foreign Direct Investment Beneficial for Mexico? An Empirical Analysis" examines the impact of Foreign Direct Investment on labour productivity function for the 1960- 2001 period is estimated that includes the impact of changes in the stock of private and foreign capital per worker. The error correction model estimates suggest that increase in both private and foreign investment per worker have a positive and economically significant effect on the rate of labour productivity growth. However, after taking into account the growing remittances of profits and dividends, there is a marked decrease in the economic effect of foreign capital per worker on the rate of labour productivity growth. The study assesses the short – term interactions of the relevant variables via impulse response functions and variance decompositions based on a decomposition process that does not depend on the ordering of the variables.

Rhys (2006) in his study “Globalization, FDI and Employment in Vietnam”, examines the impact of FDI on employment in Vietnam, a country that received considerable inflow of foreign capital in the 1990s as part of its increased integration with the global economy. The study shows that the indirect employment effects have been minimal and possibly even negative because of the limited linkages which foreign investors create and the possibility of “crowding out of domestic investment”. Thus, the study finds out that despite the significant share of foreign firms in industrial output and exports, the direct employment generated has been limited because of the high labour productivity and low ratio of value added to output of much of this investment.

Belem and Vasquez (2006) in his study, “The effect of Trade Liberalization and Foreign Direct Investment in Mexico” analyses the importance of liberalization and FDI on Mexico’s economy. The major findings of the study demonstrated that the main determinants of GDP are capital accumulation, labour productivity and FDI. Further, findings confirm that exports, differences in relative wages and currency depreciation are explicative of FDI. Exports are highly dependent on the world economy and exchange rate fluctuations. Labor productivity and FDI improve human capital. Similarly, GDP and human capital induce productivity gains and capital accumulations improve due to technology transfers, infrastructure, personal income and peso appreciation. The study showed that an expansionary monetary policy has the capacity to decelerate the interest rate and thereby to enhance FDI and its spillovers.

Garrick (2006) in his work, “Technology adoption from Foreign Direct Investment and Exploring: Evidence from Indonesian Manufacturing” contains three essays on technology adoption from foreign direct investment and exploring. The first essay investigates how technology that accompanies FDI diffuses in the host economy and finds that multinationals wish to limit technology leakage to domestic rivals, they benefit from deliberate technology transfer to suppliers that may lower input prices or raise input quality. The second essay examines how firm attributes affect innovation by investing the adoption of technology brought with FDI. The findings suggest that the more competent firms have already adopted technologies with high returns and low costs, whereas less competent firms have room to catch up

and can still benefit from the adoption of 'low hanging fruit technology' the third essay asks whether firms acquire technology through exporting and find strong evidence that firms benefit from a one time jump in productivity upon entering export markets.

Emrah (2006) in her study "Causal Relationship between Foreign Direct Investment and Economic Growth in Turkey", examines the possible causal relationship between FDI and Economic Growth in Turkey. The study finds out that there is neither a long run nor a short run effect of FDI on economic growth of Turkey. Thus, the study could not find any patterns for each hypothesis of "FDI led Growth" and "Growth driven FDI" in Turkey. The main reason of this result is that the country had unstable growth performances and very low FDI inflows for the period under analysis. The study suggests that in order to have a sustained economic development the government should improve the investment environment with the ensured political and economic stability in the country.

Yew (2007) in his study, "Economic Integration, Foreign Direct Investment and Growth in ASEAN five members" examines the effects of economic integration on FDI flows and the effects of FDI flows on economic growth in ASEAN 5 countries. The study found that market size, economic integration, human capital, infrastructure and existing FDI stock are the important determinants of FDI for ASEAN countries. The study also found that FDI, economic integration and human capital are robustly significant to economic growth, manufacturing sector growth and high technology sector growth for ASEAN countries. The FDI flow into ASEAN countries was found to be inversely proportional to the per capita income of the five countries. It is concluded that the effect of FDI on economic growth of ASEAN countries was found to be higher for countries with higher per capita income. Coupled with strong intra – industry trade in the manufacturing sector of ASEAN countries an integrated approach to draw in FDI and promote manufacturing and high technology growth should be accelerated. The machinery and electrical appliances industry contribute the highest trade in the region and is highly integrated in intra – industry trade within the region. The key hubs of the industry within the region are Malaysia and Singapore.

Sasidharan and Ramanathan (2007), study on “Foreign Direct Investment and Spillovers: Evidence from Indian Manufacturing”. It is an attempt to empirically examine the spillover effects from the entry of foreign firms using a firm level data of Indian manufacturing industries. Firm – level data of Indian manufacturing industries are used for the period 1994-2002. They consider both horizontal and vertical spillover effects of FDI. Consistent with the results of the previous studies, the study finds no evidence of horizontal spillover effects. However, the study finds negative vertical spillover effects.

Diana (2007) in her study, “Foreign Direct Investment location determinants in Central and Eastern European Countries” focuses on central and Eastern European former state – planned economies and investigates why multinationals chose to locate their investments in these countries. The main findings of the study are that market potential, privatization and agglomeration factors have significant effects upon FDI location choice, helping to explain the attractiveness for FDI of these host countries.

Rudi (2007) in his study, “FDI in China: Effects on Regional Exports” investigates the existence of a significant FDI – Export linkage in China, using panel data at the provincial level over the 1995 to 2003. The theory of FDI proposes the possibility of an export creating effect. However, the results show that if the model is correctly specified, there is no evidence for the existence of a significant FDI-export linkage. The study concluded that the claims of the reference studies concerning the presence of a FDI – export linkage are not valid.

Vittorio and Ugo (2007) in their study, “Do institutions matter for FDI? A Comparative analysis for the MENA countries analyzes the underpinning factors of foreign Direct Investments towards the MENA countries. The main interpretative hypothesis of the study is based on the significant role of the quality of institutions to attract FDI. In MENA experience the growth of FDI flows proved to be notably inferior to that recorded in the EU or in Asian economies, such as China and India. The study suggests as institutional and legal reform are fundamental steps to improve the attractiveness of MENA in terms of FDI. It is concluded from the above studies that market size, fiscal incentives, lower tariff rates, export intensity,

availability of infrastructure, institutional environment, IT related investments and cross – border mergers and acquisitions are the main determinants of FDI flows at temporal level. FDI helps in creation/preservation of employment. It also facilitates exports. Diverse types of FDI lead to diverse types of spillovers, skill transfers and physical capital flows. It enhances the chances of developing internationally competitive business clusters (e.g. ASEAN, SAPTA, NAFTA etc.). The increasing numbers of BITs (Bilateral Investment Treaties among nations, which emphasizes non – discriminatory treatment of FDI) between nations are found to have a significant impact on attracting aggregate FDI flow as the concepts of neighborhood and extended neighborhood are widely applicable in different contexts for different countries. It is concluded that FDI plays a positive role in enhancing the economic growth of the host country.

Charlotta (2007) in his study “Multinational Corporations and Spillovers in Vietnam- Adding Corporate Social Responsibility” focuses the presence of MNCs and how they have influenced the Vietnamese economy is examined. Specifically, MNCs spillover effects on domestic enterprises are discussed. The paper also discussed the challenges and obstacles to implementation and development of corporate social responsibility policies. It shows that there is potential for positive spillover effects, such as production methods and information spread from MNCs to domestic suppliers. However, the company must be large enough to be contracted and there is a risk that the gap will widen between the few large strong suppliers and the huge number of small – and medium – sized companies that operate in Vietnam. The paper also shows that MNCs can work as catalysts by transferring CSR guidelines and a long – term way of thinking to domestic companies.

Tatonga (2007) in his study, “Trends and determinants of inward Foreign Direct Investment to South Africa” analyses Trends and determinants of inward Foreign Direct Investment to South Africa for the period 1975-2005. The analysis indicated that openness, exchange rate and financial development are important in long run determinants of FDI. Increased openness and financial development attract FDI. While an increase (depreciation) in the exchange rate deters FDI to South Africa. Market size emerges as a short run determinant of FDI although it is declining in importance. The analysis also showed that FDI itself, imports and

exchange rate explain a significant amount of the forecast error variance. The influence of market size variable is small and declining over time.

Swapna (2007) in his thesis, "Comparative Analysis of FDI in China and India: Can Laggards Learn from Leaders?" focuses on what lessons emerging markets that are laggards in attracting FDI, such as India, can learn from leader countries in attracting FDI, such as China in global economy. The study compares FDI inflows in China and India. It is found that India has grown due to its human capital, size of market, rate of growth of the market and political stability. For china, congenial business climate factors comprising of making structural changes, creating strategic infrastructure at SEZs and taking strategic policy initiatives of providing economic freedom, opening up its economy, attracting diasporas and creating flexible labour law were identified as drivers for attracting FDI.

Jing (2008) in his work, "Foreign Direct Investment, Governance, and the Environment in China: Regional Dimensions" includes four empirical studies related to FDI, Governance, economic growth and the environment. The results of the thesis are, first, an intra-country pollution haven effect does exist in China. Second, FDI is attracted to regions that have made more effort on fighting against corruption and that have more efficient government. Third, government variables do not have a significant impact on environmental regulation. Fourth, economic growth has a negative effect on environmental quality at current income level in China. Lastly, foreign investment has positive effects on water pollutants and a neutral effect on air pollutants.

Samuel (2009) in his paper, "Can Foreign Direct Investment help to promote growth in Africa" provides a review of Foreign Direct Investment and economic growth literature in the context of developing countries and particularly Sub-Saharan Africa. The main findings of the study are as follows, first, FDI contribution to economic development of the host country in two main ways, augmentation of domestic capital and enhancement of efficiency through the transfer of new technology, marketing and managerial skills, innovation and best practices. Secondly, FDI has both benefits and costs and its impact is determined by the country specific conditions in general and the policy environment in particular in

terms of the ability to diversify, the level of absorption capacity, targeting of FDI and opportunities for linkages between FDI and domestic investment.

Imai, Gaiha, Ali and Kaicker (2014) used panel data to study the impact of FDI on economic growth in 24 countries during 1980 – 2009. The variables used were the GDP, the remittances, the inflation, the civil wars, the available natural resources, the investment, the financial development and the capital account openness. It is observed that remittances contribute more on economic growth compared to FDI and ODA.

Cleeve, Debrah and Yiheyis (2015) used panel data to study the interaction between FDI and human capital in 35 SSA countries during 1980 – 2012. The variables studied were the FDI, the human capital, the literacy ratio, the trade openness, the natural resources, the market size, the democratic institutions, the infrastructure, the financial crises and the political participation. It is argued that there is a positive relation between F.D.I. and human capital and that the market size, the natural resource endowments, the infrastructure and the economic crises are the determinants factors of FDI.

Anwar and Cooray (2015) used OLS, GMM and panel data to investigate the interaction among FDI, ODA, remittances and GDP in 103 countries during 1970 – 2011. The variables used were the GDP, the domestic capital, the ODA, the remittances and the FDI. It is observed that both FDI and remittances have a positive impact on GDP. Furthermore, the institutional quality, the government expenditure and the human capital are determinant factors of FDI.

Gui – Diby and Renard (2015) applied GLS to study the relation between industrialization and FDI in 49 countries during 1980 – 2009. The variables used were the level of industrialization, the gross fixed capital formation, the FDI, the exports, the imports and the value added of the agricultural sector. It is argued that FDI have no significant impact on the level of industrialization contrary to the market size, the international trade and the financial sector of the host country.

Pazienza (2015) used OLS, RE and FE to study the environmental impact of FDI in 30 countries during 1981 – 2005. The variables used were the CO2

emissions, the GDP, the gross fixed capital formation, the trade openness, the literacy ratio, the product and the surface. The findings suggest that F.D.I. have no environmental consequences.

Mohammed and Mahfuzul (2016) with the use of annual time series data for the period running from 1973 to 2014, as well as cointegration method estimated the effect of FDI on the economy of Bangladesh. The findings of the study suggests that trade and FDI had a significant impact on Bangladesh economic performance. The study also indicates a long-term relationship amongst the variables used in the model. The study concludes by recommending that the government of Mauritania should put in place policies that would potentially make the country's macroeconomic environment competitive so as to encourage FDI.

Abdouli and Hammami (2017) using panel data and dynamic model determined the role of economic growth, human capital and the environment in attracting FDI inflows for four selected African Mediterranean countries over the period 1990– 2013. The analysed estimated results' suggests that higher human capital attracts FDI inflows in the four countries considered in the study. Furthermore, the results' indicates that weak environmental regulations increase FDI inflows. Besides, the findings' demonstrates that FDI inflows do not lead to economic growth in the countries considered in the study. The main determinants of FDI in developing countries are inflation, infrastructural facilities, debts, burden, exchange rate, FDI spillovers, stable political environment etc. It is found that firms in cluster gain significantly from FDI in their region, within industry and across other industries in the region. It is also observed that FDI have both short – run and long – run effect on the economy. So, regulatory FDI guidelines must be formulated in order to protect developing economies from the consequences of FDI flows.

2.4 Research Gap

The above review of literature proves beneficial in identifying the research issues and the research gaps, which are mainly the edifices on which the objectives of the present study are based on. There is hardly any study in Nepal which has taken macroeconomic variables like GDP, total trade, export, import while assessing the determinants and impact of FDI on Nepalese economy. The present study tries to

include these above said variables in assessing the determinants and impact of FDI in Nepal at the macro – level. Further, there is hardly any study in Nepal, which documents the trends and patterns of FDI. Thus, the present study is an endeavor to discuss the trends and patterns of FDI, its determinants and its impact on Nepalese economy. The present study differs from the early studies in many ways and enriches the existing literature in the following ways: Firstly, it has included variables other than the variables included by other scholars. Secondly, the present study documents the trends and patterns of FDI at Nepal. Thirdly, the present study tries to highlight the changing attitude of foreign investors on various political transition of Nepal and attitude change of developed countries towards developing countries in understanding their contribution in contemporary international relations and development process. Fourthly, the study presents the experiences of first and second generation of economic reforms on Nepalese economy.

CHAPTER III

METHODOLOGY

3.1 Research Design

After the restoration of multiparty democracy and implementation of various policies there has been transfer of resources in Nepal. The pace of FDI took a rapid shape after FY 1990. Being the developing country, Nepal has been receiving FDI in the development of various sectors. The study is concerned with the trend and patterns of FDI to Nepal. The study aimed at examining the effect of GDP, Trade, export and import on FDI in Nepal. The study is descriptive as well as analytical type and focuses on trend of FDI in Nepal.

3.2 Nature and Sources of Data

This analysis of the study attempts to get various empirical results using only secondary data. The required data are also obtained from various sources like Economic Surveys, Ministry of Industry, Trade and Commerce (MOITC), Department of Industry (DOI), National Planning Commission (NPC), Central Bureau of Statistics (CBS), Quarterly Economic Bulletin (NRB), World Bank, etc. In addition to those data and information were collected from different newspaper as well as published and unpublished documents of various research institutions. The time coverage of the study is from FY 1996 to FY 2017 because after FY 1990 the pace of FDI in Nepal continued rapidly due to the restoration of democracy and implementation of various policies.

3.3 Variables and Model Specification

The model specified for the comparative study is given below

$$\text{GDP} = a_0 + b_0 \text{ FDI} \dots \dots \dots \text{(I)}$$

$$\text{T} = a_1 + b_1 \text{ FDI} \dots \dots \dots \text{(II)}$$

$$\text{E} = a_2 + b_2 \text{ FDI} \dots \dots \dots \text{(III)}$$

$$I = a_3 + b_3 \text{ FDI} \dots \dots \dots \text{ (IV)}$$

Where, FDI = Foreign direct investment (Independent variable)

GDP = Gross domestic product (Dependent variable)

T = Trade (Dependent variable)

E = Export (Dependent variable)

I = Import (Dependent Variable)

a_0, a_1, a_2 and a_3 are the autonomous amount of dependent variable

b_0, b_1, b_2 and b_3 are slope of regression line or rate of change in independent variables with respect to change in dependent variables.

Symbol	Variable Definition	Units
FDI	Foreign Direct Investment	Rupees
GDP	Gross Domestic Product	Rupees
T	Trade	Rupees
E	Export	Rupees
I	Import	Rupees

3.4 Methods of Data Analysis

The following statistical tools are used in the analysis:

3.4.1 Correlation Coefficient:

Correlation can be defined as a quantitative measure of the degree or strength of relationship that may exist between two variables. If X and Y are two variables, the correlation coefficient is given by the ratio of the covariance between X and Y to the product of the standard deviation of X and that of Y. This can be expressed as:

$$r_{xy} = \frac{\text{Cov.}(X,Y)}{\sigma_x \sigma_y}$$

The covariance in the numerator gives a measure of the simultaneous change in the two variables and is divided by product of the standard deviations of X and Y to make the measure free of any unit in order to facilitate a comparison between more than one set of bivariate data which may be expressed in different units. Thus, this measure of correlation coefficient is independent of a shift in the origin and a change of scale. The correlation coefficient lies between +1 and -1. The correlation coefficient is positive when the two variables tend to move in the same direction. In the event of the two variables tending to move in the opposite directions, the correlation coefficient assumes a negative value.

3.4.2 Regression Analysis

The simple regression is the equation with one independent (explanatory) variable and one dependent variable. Let us take a simple regression equation with dependent variable Y and independent variables X_1 . Then the regression equation or line of Y on X_1 is:

$$Y = a + b_1X$$

From simple regression, we can find out the relationship between dependent variable and independent variable. Once a simple regression equation has been constructed, one can check how good it is (in terms of predictive ability) by examining the coefficient of determination (R^2). The value of R^2 always lies between 0 and 1.

i. R^2 - coefficient of determination

All software provides it whenever regression procedure is run. The closer R^2 is to 1, the better is the model and its prediction. A related question is whether the independent variables individually influence the dependent variable significantly. Statistically, it is equivalent to testing the null hypothesis that the relevant regression coefficient is zero. This can be done using t-test. If the t-test of a regression coefficient is significant, it indicates that the variable in question influences Y significantly while controlling for other independent explanatory variables. It is defined as:

$$R^2 = 1 - \frac{SSE}{TSS} = \frac{TSS - SSE}{TSS} = \frac{SSR}{TSS}$$

$$= 1 - \frac{\sum e^2}{\sum y^2}$$

Where, TSS = Total variation = $\sum y^2$

SSE = Unexplained variation = $\sum e^2$

SSR = Unexplained variation = $b\sum xy$

ii. t-Test

The significance level α for a given hypothesis test is a value for which a *P-value* less than or equal to α is considered statistically significant. Typical values for α are 0.1, 0.05, and 0.01. These values correspond to the probability of observing such an extreme value by chance. Suppose the *P-value* is 0.0082, so the probability of observing such a value by chance is less than 0.01, and the result is significant at the 0.01 level. It is defined as:

$$t = \frac{b_i}{S.E.(b_i)}$$

Where, b_i = coefficient of regression line

S. E. (b_i) = standard error of b_i

$$S.E.(b_i) = \sqrt{\frac{\sum e^2}{n-2} \left(\frac{1}{\sum x^2}\right)}$$

iii. F-Test

The significance level α for a given hypothesis test is a value for which a *P-value* less than or equal to α is considered statistically significant. Typical values for α are 0.1, 0.05, and 0.01. These values correspond to the probability of observing such an extreme value by chance. Suppose the *P-value* is 0.0082, so the probability of observing such a value by chance is less than 0.01, and the result is significant at the 0.01 level. It is defined as:

$$F = \frac{R^2}{1-R^2}$$

iv. D-W Test

Before estimating a and b in the least square technique, it is essential to determine the procedure of autocorrelation error terms. J. Durbin and G.S. Watson had developed a test for small sample in 1950, which can detect the presence of autocorrelation. They have tested the hypothesis of non-autocorrelation i.e. $H_0: \rho = 0$ against the alternative hypothesis of positive autocorrelation of first order i.e. $H_1: \rho > 0$. They gave formula for the calculation of Durbin-Watson statistic named as 'd' and defined as:

$$d = \frac{\sum_{t=2}^n (e_t - e_{t-1})^2}{\sum_{t=1}^n e_t^2}$$

Where, e_t = error at the time period 't'

$\sum_{t=2}^n (e_t - e_{t-1})^2$ = the square of the difference in two successive errors,

$\sum_{t=1}^n e_t^2$ = the sum of square of errors.

For the positive autocorrelation:

- i. If $d < d_L$, there is positive autocorrelation.
- ii. If $d < d_L < d_U$, the test is inclusive.
- iii. If $d_U < d < 4 - d_U$, there is no positive autocorrelation,

For negative autocorrelation:

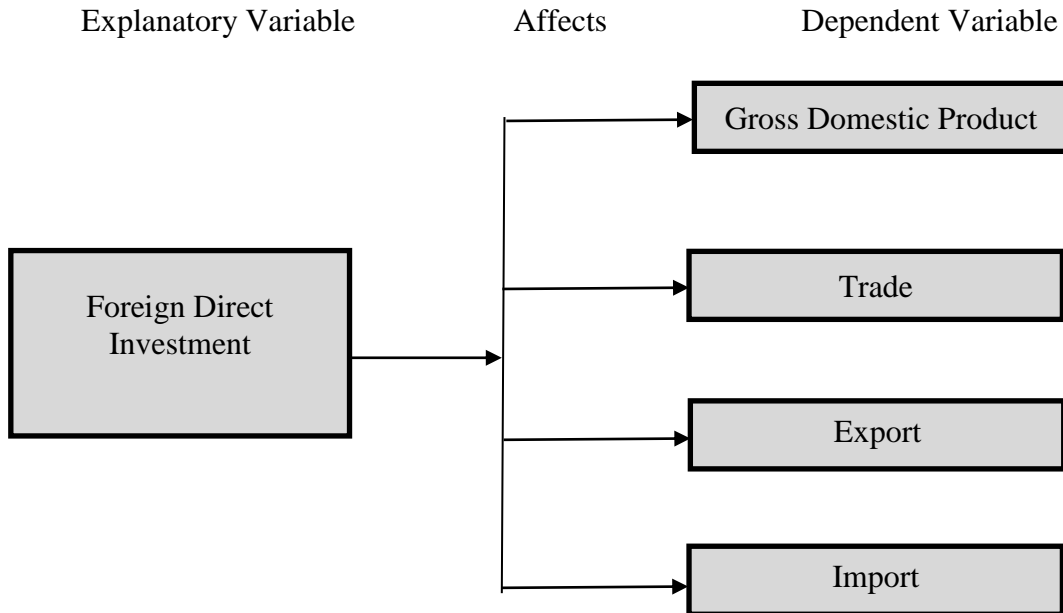
- i. If $d > 4 - d_L$, there is negative autocorrelation.
- ii. If $4 - d_U < d < 4 - d_L$, the test is inclusive
- iii. If $d_U < d < 4 - d_U$, there is no negative autocorrelation.

The autocorrelation is defined as:

$$\rho = \frac{\sum_{t=2}^n e_t \cdot e_{t-1}}{\sum_{t=1}^n e_t^2} \quad (\text{Sutihar, 2017})$$

3.5 Conceptual Framework

Foreign Direct Investment has affected various macro-economic variables like GDP, trade, export and import. The conceptual framework can be represented as:



CHAPTER IV

DATA ANALYSIS

4.1 Introduction

This chapter includes presentation and analysis of data. In the process of data analysis the relevant data from various sources are collected, classified and tabulated to fulfill the requirement of the study. Data are presented in the percentage when required. Tables, bar graphs, pie charts, trend line, mean and standard deviation, etc. are used accordingly to the situation and requirements of the study. The regression, correlation, hypothesis testing are done according to the given sets of data using SPSS software.

4.2 Trend of Foreign Direct Investment in Nepal

Nepal being developing country has been receiving FDI from different part of the world. Large share of FDI has been adding in the economic development and various infrastructure sectors of Nepal. The volume of FDI to Nepal has been increasing in the recent years. The following table shows the volume of FDI in Nepal.

Table 4.1
Volume of Foreign Direct Investment in Nepal

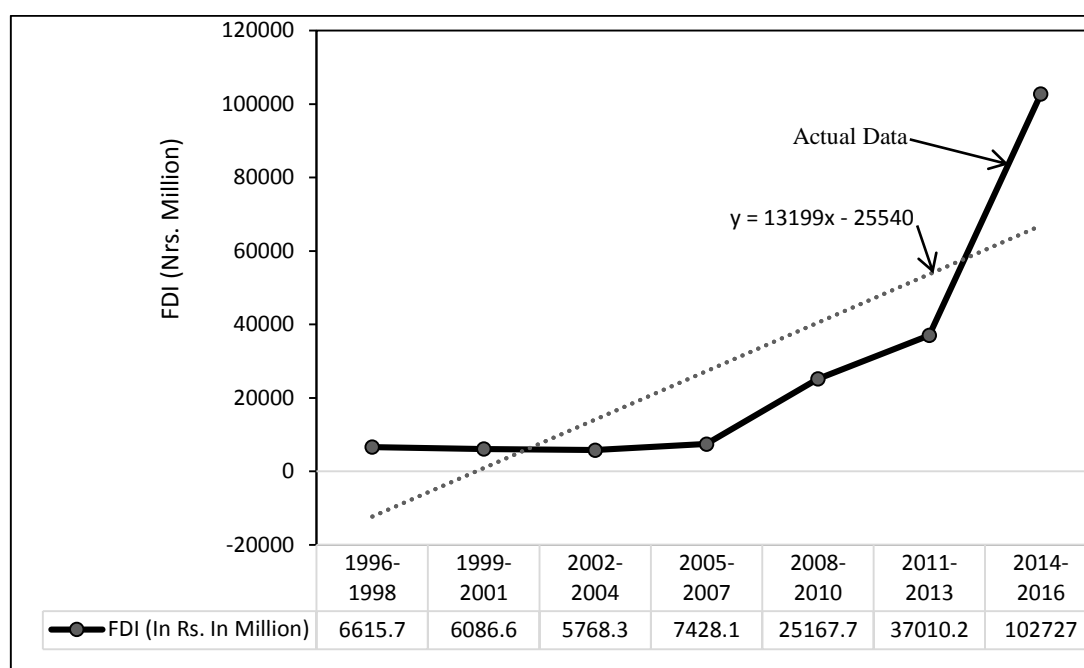
FY	FDI (Rs. in Million)
1996-1998	6,615.7
1999-2001	6,086.6
2002-2004	5,768.3
2005-2007	7,428.1
2008-2010	25,167.7
2011-2013	37,010.2
2014-2016	102,727

Source: Appendix A– 3 years Average

Table 4.1 shows the volume of FDI in Nepal from 1995-2016 with three years average. The average volume of FDI in FY 1996-1998 was Rs.6615.7 million. However, in the FY 1999-2001, the volume of FDI fell to Rs.6086.6 million. The trend of FDI continued to fell reaching Rs.5768.3 millions in the FY2002-2004. But later, in the FY2005-2007, the volume of FDI reached Rs.7428.1 millions. The trend of volume of FDI rose significantly to Rs.25167.7 millions in the FY 2008-2010. The figure continued to rise reaching Rs.37010.2 millions in the FY2011-2013. There was huge growth of FDI in the FY 2014-2016 reaching a record of Rs.102727 millions which is almost three times the previous year investment.

Figure 4.1

Trend of FDI in Nepal (1996-2016)



Source: Appendix A

Figure 4.1 shows the trend of FDI in Nepal from 1996-2016 in Nepal. In the FY1996-1998, the FDI amounts to Rs. 6615.7 million. In the next 2 FYs (1999-2001 and 2002-2004), the volume of FDI has been fallen Nepal. Again, after FY2005-2007 to FY 2008-2010, the amount of FDI has been increasing as shown in figure. There was a rapid increase in the volume of FDI from FY 2011-2013 to FY 2014-2016, the volume of FDI has been rose significantly. From the above figure, it can be seen that the trend of FDI is on rising phenomena in Nepal and FDI is playing very crucial role in Nepal.

4.3 Pattern of FDI as a Percentage of GDP

The pattern of FDI can be shown in terms of Gross Domestic Product (GDP). FDI has been contributing in the different sectors of Nepal for the better production and utilization of various sectors in Nepal. Table 4.2 shows FDI as a percent of GDP in Nepal

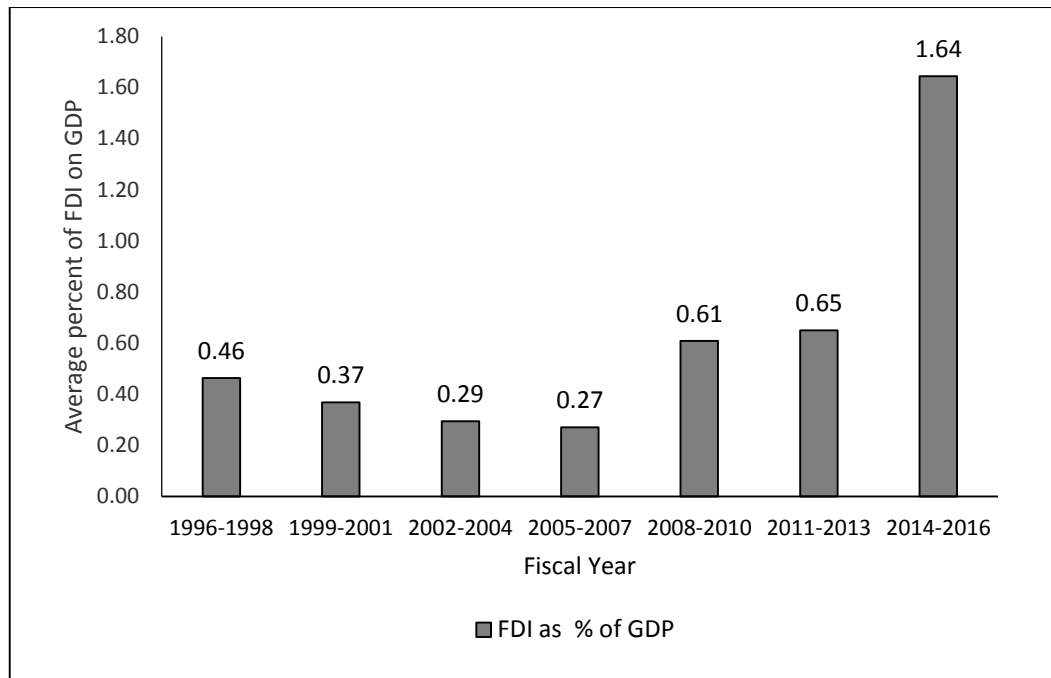
Table 4.2
FDI as a Percentage of GDP

FY	FDI (Rs. in Million)	GDP(Rs. in Million)	FDI as percentage of GDP
1996-1998	6615.7	1429653	0.462749
1999-2001	6086.6	1653495	0.368105
2002-2004	5768.3	1965529	0.293473
2005-2007	7428.1	2749960	0.270117
2008-2010	25167.7	4140309	0.60787
2011-2013	37010.2	5700933	0.649195
2014-2016	102727	6246364	1.644589

Source: Appendix B – 3 years Average

Table 4.2 shows the average FDI as a percent of average GDP in Nepal. In the FY 1996-1998, the average GDP of Nepal was Rs. 1429653 millions. The FDI inflow was Rs 6615.7 millions. The FDI covered 0.46 percent of GDP in the FY 1996-1998. Likewise, in the FY, 1999-2001, the average GDP reached Rs. 1653495 millions and the FDI to Nepal was Rs 6086.6 millions which is only 0.36 percent of the GDP. Similarly, the GDP was Rs. 1965529 millions in the FY 2002-2004 and the FDI was Rs. 5768.3 millions. The FDI occupied only 0.29 percent of the GDP. Again, in the FY 2005-2007, the GDP continue to rise to Rs. 2749960 millions but the FDI fell to Rs. 7428.1 millions. It was only 0.27percent of average GDP. The figure continued to rise from FY 2008-2010. Later in FY 2011-2013, the GDP reached Rs. 5700933 millions but the FDI was Rs. 37010.2 millions, which is only 0.64percent of the GDP. But in FY 2014-2016, the GDP climbed at Rs. 6246364 millions and FDI also sky rocketed to Rs. 102727 millions and recorded 1.64percent of the GDP in 3 years average period of 21 years.

Figure 4.2
FDI as a Percentage of Totals GDP



Source: Appendix C

Figure 4.2 shows the average FDI as a percent of average GDP in Nepal. In FY 1996-1998, the average percent of FDI to GDP is 0.46 percent. Likewise, in FY 1998-2001, the average percent decreased to 0.36 percent from 0.46 percent. The figure continued to fall at 0.29 percent in FY 2002-2004. The percentage of average FDI to GDP continued to fall from FY 2002-2004 reaching 0.27 in that FY 2005-2007. Later, in FY 2008-2010, the percentage occupied by FDI to GDP was 0.60 percent. Similarly, the percentage of average FDI to GDP reached 0.64 percent in FY 2011-2013. But, the average FDI to GDP recorded 1.64 percent in the FY 2014-2016. From the figure, it is clear that the average FDI to GDP is raising and falling giving up and down pattern in the 3 years average FY of 21 years.

4.4 FDI as Approved and Actual

Nepal has been receiving FDI from different parts of the world. The FDI in Nepal are approved by DOI whereas the approval for the investment is taken. But the actual amount that come as an investment must come through the central bank of Nepal called Nepal Rastra Bank which keeps the actual record of the

investment which come as FDI from abroad. The Table 4.5 shows the approved and the actual FDI in Nepal from 1996 to 2016.

Table 4.3
Approved FDI and Actual FDI in Nepal, (1996-2016)

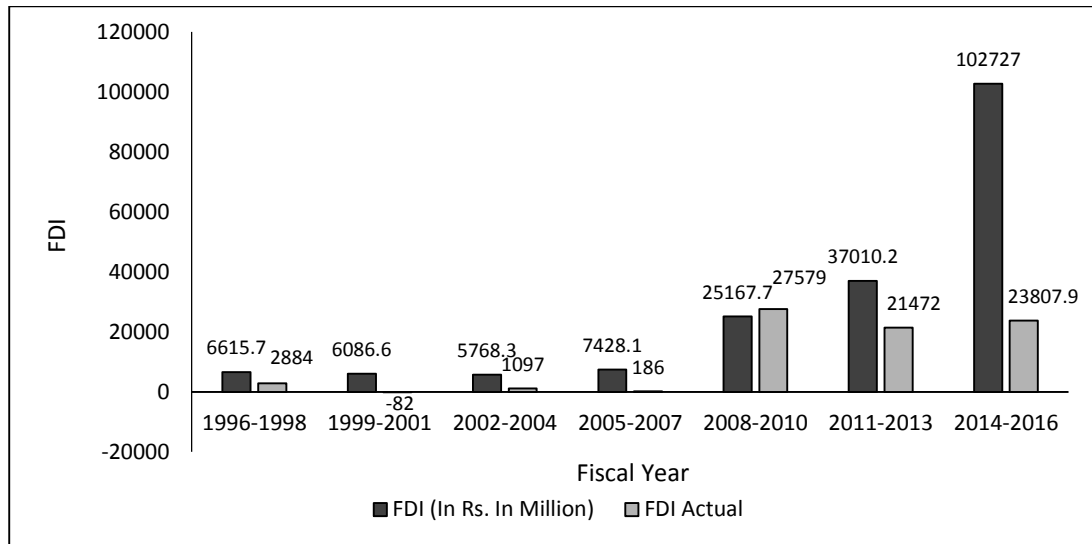
FY	Approved FDI (Rs. in Million)	FDI Actual (Rs. in Million)
1996-1998	6,615.7	2,884
1999-2001	6,086.6	-82
2002-2004	5,768.3	1,097
2005-2007	7,428.1	186
2008-2010	25,167.7	27,579
2011-2013	37,010.2	21,472
2014-2016	102,727	23,807.9

Source: Appendix A– 3 years Average

Table 4.3 shows the approved FDI and actual FDI situation in Nepal from FY1996 to FY 2016. The average approved FDI was Rs. 6615.769 million in the FY 1996 to 1998 while the actual FDI was Rs. 2884 millions. Out of approved FDI of Rs. 6086 millions in FY 1999-2001 actual FDI was negative with 82 millions in Nepal. Likewise, the actual FDI was Rs. 186 millions in the FY 2005-2007 and Approved FDI was Rs.7428.1millions. The percentage of actual FDI was 2.5percent of total amount approved. Similarly, the approved FDI in FY 2008-2010 was Rs. 25167.7 millions and the actual FDI was Rs.27579 million. The percentage of actual FDI was almost 10percent more than the approved FDI. In the FY 2011-2013 Rs. 37010.2 millions was approved. The actual FDI percentage was 58percent of the approved. Later, in the FY 2014-2016, the amount of approved FDI was Rs. 102727 millions and the actual FDI was Rs. 23807.9 millions which was 23percent of the amount approved FDI.

Figure: 4.3

Approved FDI and Actual FDI in Nepal



Source: Appendix A

4.5 Contribution of FDI in Various Sectors of Nepal

Nepal had attracted modest FDI in niche sectors such as tourism, herbal products, mineral deposits (lime stone), and light manufacturing apparel; hydro power and that it had positive impacts on exports, particularly garments. Similarly, FDI has also facilitated the country to export non-traditional manufactured products such as micro-transformers and personal consumer products. Investment is basically concentrated in low-technology and labor-intensive production. The impact of FDI had in job creation is below moderate. According to the study, the inflow of FDI has been constrained by political instability, geographical structure, rigid labour regulations and poor physical infrastructure. This situation remains current due to political instability and phase of political transition.

Foreign investment in Nepal is regulated, monitored and controlled by Foreign investment and technological transfer and industrial enterprise act. The department of industry (DOI) is responsible to implement and administrate foreign investment and technology transfer act in Nepal. Foreign investment in Nepal can be in various forms as listed below:

- i. Equity/ investment in share

- ii. Reinvestment of earning from dividend
- iii. Investment in kinds. E.g.: equipment and machineries
- iv. Investment made in forms of loan and loan facility

Any investment below US dollar 50,000 (NRP 5,00,00,000) per investors is not approved for investment. By act there are some defined sectors where 100percent equity share cannot be obtained by foreign investors. They are:

- i. Cottage industry
- ii. Personal service business
- iii. Radioactive materials
- iv. Real state. (except construction)
- v. Flim
- vi. Security printing
- vii. Arms and ammunition
- viii. Bank notes and coins
- ix. Retail except international chain retail
- x. Tobacco
- xi. International courier
- xii. Atomic
- xiii. Poultry
- xiv. Fishery
- xv. Bee keeping
- xvi. Processing of food grains
- xvii. Consultancy
- xviii. Local catering service
- xix. Rural tourism

Each investor should go through certain procedure to set up the entity. Brief of procedure are as:

- i. Need to obtain of Department of industry for foreign Investment.
- ii. Incorporate the company at company register`s office.
- iii. Industry register in department of industry.
- iv. Obtain PAN from inland revenue office

- v. Register trademark, design, patent etc. at DOI.

In Nepal the FDI has been categorized in particular sectors. A snapshot of the number of projects along with sectors and scale wise capital investment till 2016 are:

Table 4.4

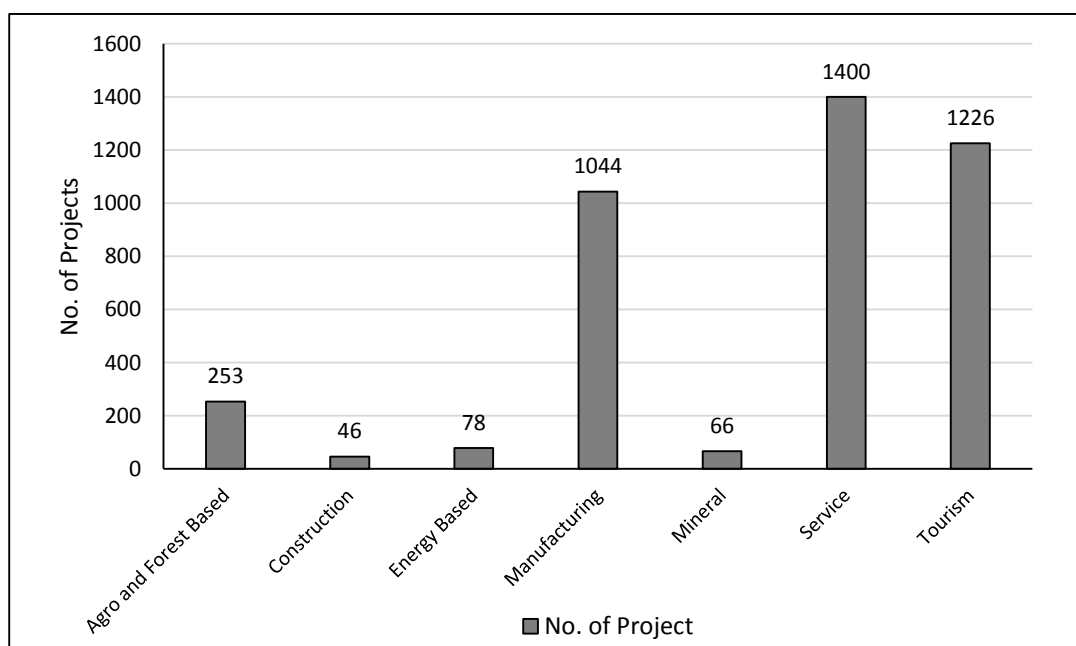
Industries Approved for Foreign Investment by Category (FY 2016/17)

Category	No. of Project
Agro and Forest Based	253
Construction	46
Energy Based	78
Manufacturing	1044
Mineral	66
Service	1400
Tourism	1226

Source: Appendix E

Figure 4.4

Industries Approved for Foreign Investment by Category in Nepal



Source: Appendix E

The bar graph shows that the FDI projects in Nepal in various. In the above figure, it can be seen that service sector has the highest number of approved FDI projects which numbered to 1400. Likewise, the service sector is the second for the highest number of projects approved in Nepal. It has 1226 projects approved. Similarly, 1044 projects of FDI are approved in manufacturing sector in Nepal. The Agro and Forest based are 253 followed by energy based which consist of 78 projects currently running in Nepal. The Energy based projects are followed by minerals in which 66 projects are running and 46 projects are currently operating in construction.

Table 4.5

Industries Approved for Foreign Investment by Category on Capital

Category	Total Capital (Rs. in Million)	Percent
Agro and Forest Based	5850.12	1.5
Construction	3,845.34	1.0
Energy Based	157,282	41.3
Manufacturing	98,395.5	25.8
Mineral	6,538.12	1.7
Service	70,733.5	18.6
Tourism	38,547.1	10.1

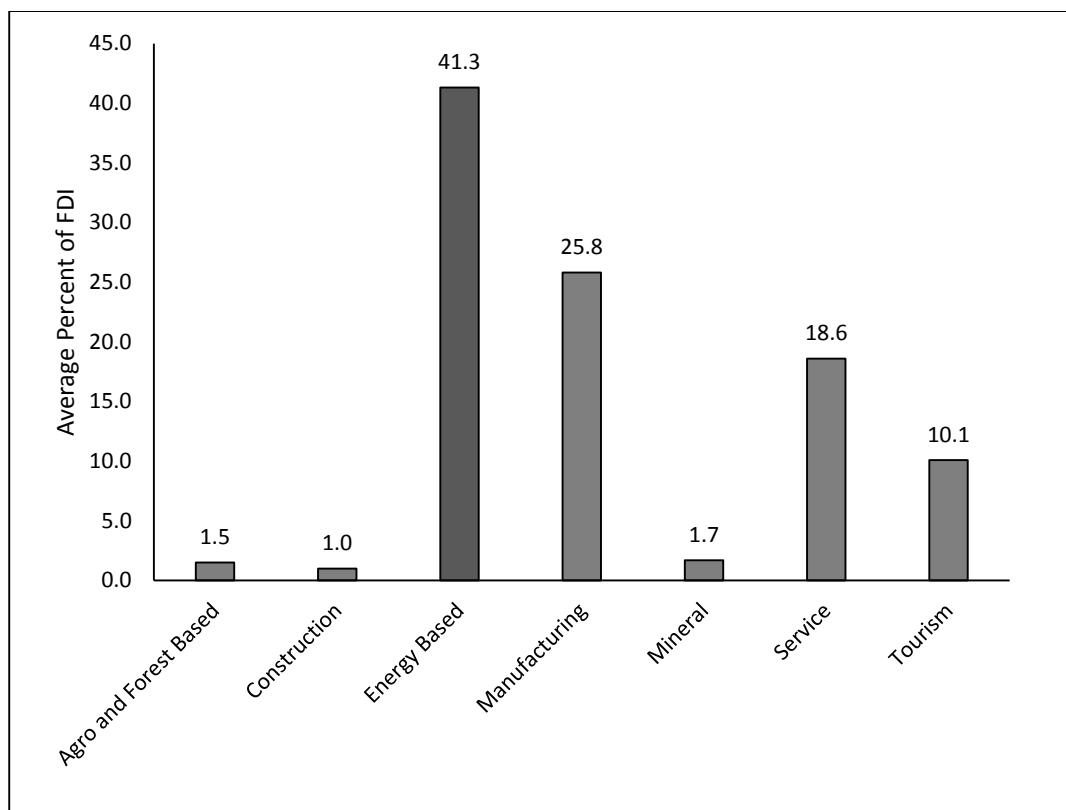
Source: Appendix E

Table 4.5 shows the FDI approved till 2016 in various sector of Nepal. In the above table, the FDI approved to energy-based sector was Rs.157282 millions which occupied 41.3 percent of the total FDI approved. Likewise, Rs.5850.12 millions was approved for agro and forest based FDI .It was just 1.5percent of the total approved FDI till 2016. The percentage of FDI approved for manufacturing sector was 25.8percent which amounts to Rs. 98395.5 millions. Another huge amount approved for service sector was Rs.70733.5 millions which was 18.6 percent of the FDI. For tourism. Rs. 38547.1 millions was approved which is 10.1percent of the total FDI. For mineral sector 1.7percent which amounts Rs.6538.12 millions of the FDI approved. Likewise, the

minimum amount of FDI approved for construction sector is Rs.3845.34 millions which occupies 1percent of the FDI.

Figure 4.5

Industries Approved for Foreign Investment

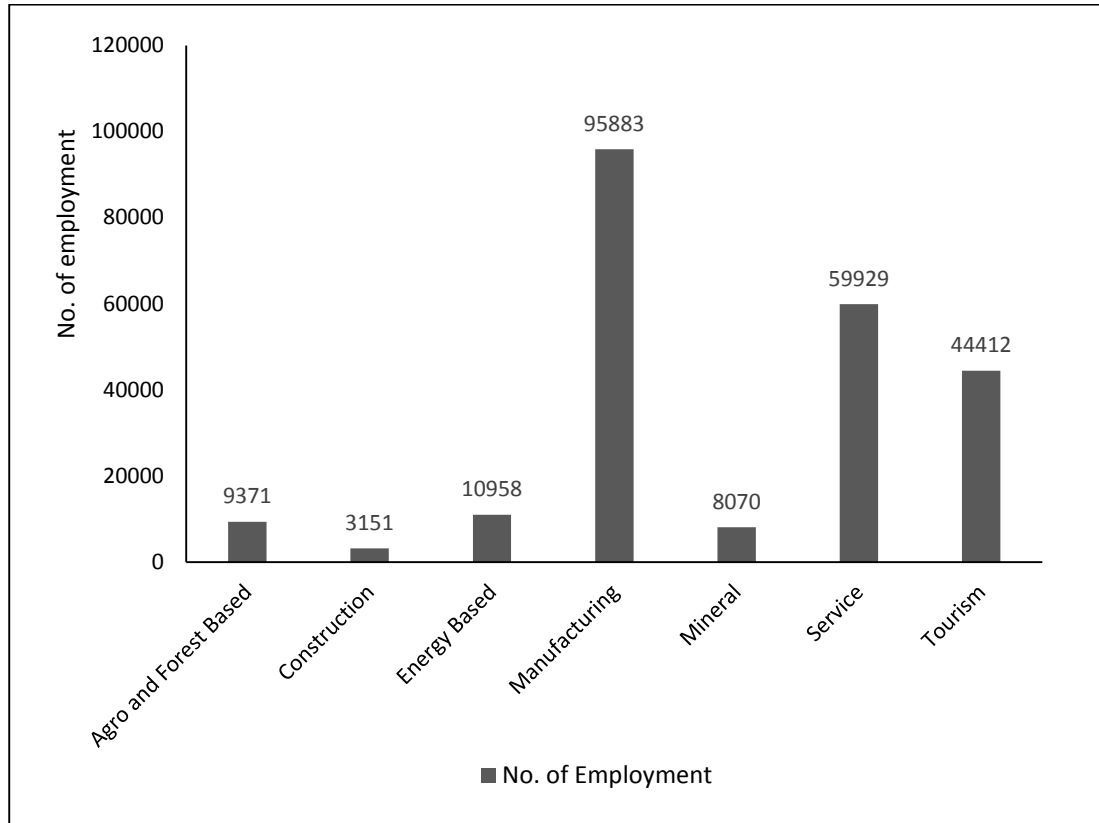


Source: Appendix E

The bar graph shows the sector-wise approval FDI till 2016. In the above figure, it can be seen that energy-based sector occupied 41.3 percent of the total FDI approved. Likewise, manufacturing comes in second for the highest amount approved for FDI. It occupied 25.8percent of the total FDI till 2016. Similarly, service sector comes in the third place for FDI approved. 10.1percent was approved for tourism. Mineral based occupied 1.7percent of the total approved FDI. The agro and forest-based sector covered 1.5percent of the total FDI approved. Likewise, 1.0percent was approved for construction sector which is the lowest amount approved for FDI.

Figure 4.6

Industries Approved for Foreign Investment by Employment Generation

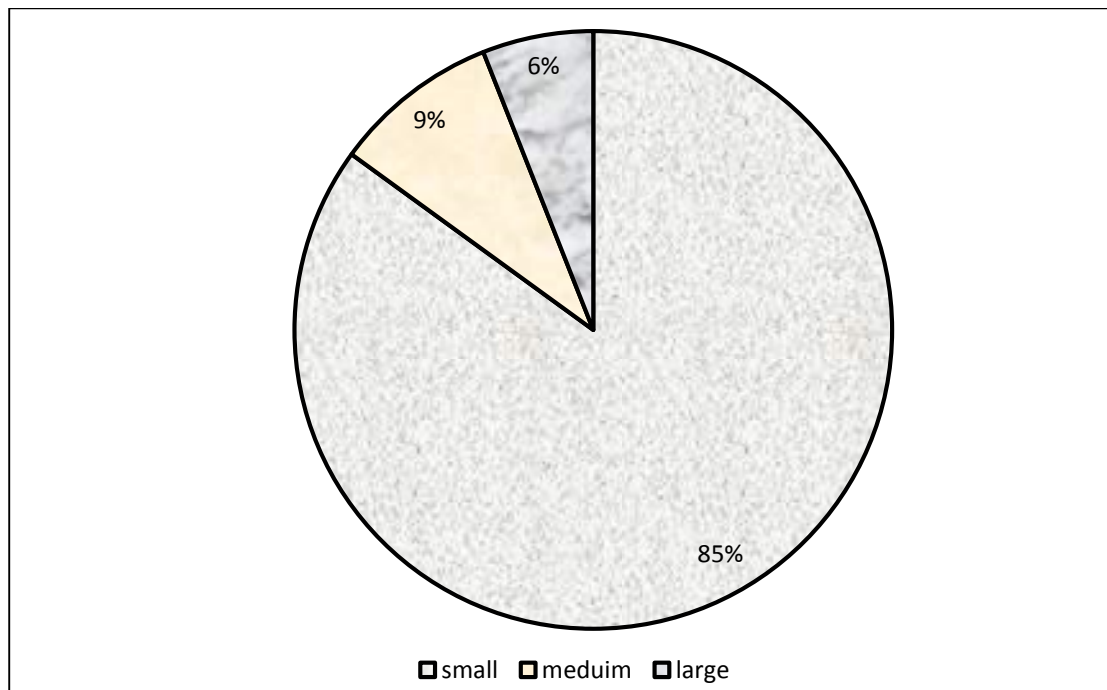


Source: Appendix E

The bar graph shows the sector-wise employment at various industries from FDI till 2016. In the above figure, it can be seen that manufacturing sector has been giving employment to the 95883 labors. Likewise, service and tourism sector come in second and third position in providing the employment to 59929 and 44412 workers respectively. The energy-based sector has been providing jobs to 10958 workers followed by 8070 workers in mineral based industry sector. The agro-based sector only employs 9371 workers and the construction sector employs the least number of workers which is 3151 only.

Figure 4.9

Industries Approved for Foreign Investment by Industry Scale



Source: Appendix D

The pie-chart shows the percentage of number of industries by scale from FDI till 2016. In the above figure, it can be seen that small-scale industries occupies 85 percent of the total industries from FDI. Likewise, middle scale industries occupy 9 percent of the total number of industries in Nepal by FDI. Whereas, the large-scale industries occupy only 6 percent of the total industries that are established by FDI.

4.6 The Impact of FDI on GDP and Trade

Nation's progress and prosperity is reflected by the pace of its sustained economic growth and development. Investment provides the base and prerequisite for economic growth and development. Apart from a nation's foreign exchange reserve, exports, government's revenue, financial position, available supply of domestic savings, magnitude and quality of foreign investment is necessary for the well being of a country. Developing nation in particular, consider FDI as the safest type of international capital flows out of the available sources of external finance available to them. Then why does Nepal has not receiving the foreign direct investment that is necessary to develop? The FDI has been playing a positive role in

the Nepalese economy and is necessary for the further growth of the economy. This intends to analyses the impact of FDI in various macro-economic variables like, GDP, trade, export, import of Nepal. All the data in the analysis are taken from various economic surveys, budgets and NRB. The regression model is used from SPSS software. The following results were obtained:

Table 4.6
Regression Results

Model	B coefficient	SE	t	Sig P- value	R ²	R	F (Critical Value)	Sig at 1percent level (Tabulated value)	D-W value
I. Constant FDI	696050.58 75.121	137272 16.481	5.071 4.558*	.000 .000	.522	0.753	20.777	2.99	1.369
II Constant FDI	176376.98 36.215	160533 7.267	2.914 4.983*	.009 .000	.567	0.723	24.832	2.99	1.140
III Constant FDI	47072.938 2.072	3756.398 .451	12.531 4.594*	.000 .000	.526	0.725	21.109	2.99	0.861
IV Constant FDI	129304.04 34.143	58501.7 7.024	2.210 4.861*	.040 .000	.554	0.744	23.632	2.99	1.117

Note. * denotes significance at 1 percent

Table 4.6 shows the output of the regression where dependent variable is GDP and independent variable is FDI. Due to lack of availability of data only 21 years (1996-2016) have been taken. In the model I, the Pearson's coefficient is 0.753 which implies that there is positive correlation between GDP and FDI variables. The value of R² is 0.522 implying that the predictor FDI accounts 52.2percent of total variation on GDP is explained by variation in FDI. The value of F-statistic is 20.777, which is greater than the critical value of F value 2.99 at 1percent level of significance with 19 degrees of freedom which indicates that regression model is , statistically significant. Likewise, the slope of FDI is 75.121 which indicates that

there is positive relation between GDP and FDI. This implies that when FDI increases by Re.1 million then GDP increases by Rs. 75.121 million. The value of d-statistic is 1.369. For $n = 21$ and $k = 1$, DW statistic $d_l = 0.975$ and $d_u = 1.161$ at 1 percent level of significance is 0.893. Since $d < d_u$. So there is statistically evidence of positive autocorrelation in error terms.

Similarly, a separate regression model was used in order to see the impact of FDI on Trade. The above table shows the output of the regression where dependent variable is Trade and independent variable is FDI. Due to lack of availability of data only 21 years (1996-2016) is taken. In the model I, the Pearson's coefficient is 0.723 which implies that there is positive correlation between Trade and FDI. The value of R^2 is 0.567 implying that the predictor FDI accounts 56.7 percent variation of the total in total trade is explained by the variations in FDI. The value of F-statistic is 24.832, which is greater than the critical value of F value 2.99 at 1 percent level of significance with 19 degree of freedom. That is estimated regression equation is statistically significant. Likewise, the slope of FDI is 36.215 which indicates that there is positive relation between Trade and FDI. This implies that when FDI increases by Re.1 million Trade increases by Rs.36.215 millions. The value of d-statistic is 1.140. For $n = 21$ and $k = 1$, D-W statistic $d_l = 0.975$ and $d_u = 1.161$ at 1 percent level of significance is 0.893. Since $d < d_u$. So there is statistically evidence of positive autocorrelation in error terms.

Likewise, a separate regression model was used in order to see the impact of FDI on Export. The above table shows the output of the regression where dependent variable is export and independent variable is FDI. Due to lack of availability of data only 21 years (1996-2016) is taken. In the model III, the Pearson's coefficient is 0.725 which implies that there is positive correlation between Trade and FDI. The value of R^2 is 0.526 implying that the predictor FDI accounts 52.6 percent variation of the total in export is explained by the variations in FDI. The value of F-statistic is 21.109, which is greater than the critical value of F value 2.99 at 1 percent level of significance with 19 degree of freedom. That is estimated regression equation is statistically significant. Likewise, the slope of FDI is 2.072 which indicate that there is positive relation between export and FDI. This implies that when FDI increases by Re.1 million export increases by Rs.2.072 millions. The value of d-statistic is 0.861.

For $n = 21$ and $k = 1$, D-W statistic $d_l = 0.975$ and $d_u = 1.161$ at 1 percent level of significance is 0.893. Since $d < d_u$. So, there is statistically evidence of positive autocorrelation in error terms.

Similarly, a separate regression model was used in order to see the impact of FDI on Import. The above table shows the output of the regression where dependent variable is import and independent variable is FDI. Due to lack of availability of data only 21 years (1996-2016) is taken. In the model IV, the Pearson's coefficient is 0.744 which implies that there is positive correlation between Trade and FDI. The value of R^2 is 0.554 implying that the predictor FDI accounts 55.4 percent variation of the total in import is explained by the variations in FDI. The value of F-statistic is 23.632, which is greater than the critical value of F value 2.99 at 1 percent level of significance with 19 degree of freedom. That is estimated regression equation is statistically significant. Likewise, the slope of FDI is 34.143 which indicate that there is positive relation between import and FDI. This implies that when FDI increases by Re.1 million import increases by Rs.34.143 millions. The value of d-statistic is 1.117. For $n = 21$ and $k = 1$, D-W statistic $d_l = 0.975$ and $d_u = 1.161$ at 1 percent level of significance is 0.893. Since $d < d_u$. So there is statistically evidence of positive autocorrelation in error terms.

Table 4.7

ANOVA Table

Model	df	F (Critical value)	Sig (Tabulated value)	Sig at 1percent level
1. Regression	1	20.777	0.000	2.99
Residual	19			
1. Regression	1	24.832	0.000	2.99
Residual	19			
1. Regression	1	21.109	0.000	2.99
Residual	19			
1. Regression	1	23.632	0.000	2.99
Residual	19			

From the ANOVA table, for model 1, the value of F-statistic is 20.777, which is greater than the critical value of $F = 2.99$ at 1percent level of significance, which indicates that the estimated equation is statistically significant. Likewise, for model II, the value of F-statistic is 24.832, which is greater critical value of $F = 2.99$ at 1percent level of significance which indicates that estimated equation is statistically significant. Similarly, for model III, the value of F-statistic is 21.109, which is greater critical value of $F = 2.99$ at 1percent level of significance which indicates that estimated equation is statistically significant. Lastly, for model IV, , the value of F-statistic is 23.632 which is greater critical value of $F = 2.99$ at 1percent level of significance which indicates that estimated equation is statistically significant. On the whole analysis, the estimated equation are found to be statistically significant.

4.9 Major Findings

The major findings from the analysis of data are given below:

- i. The FDI is continuing to inflow in Nepal and is constantly increasing after 2008. The total FDI reached total of Rs.190803 million since 1996 to 2016. Likewise, FDI has covered an average of 0.613percent in the total GDP of Nepal. The total actual FDI reached Rs.76943.9millions in the 21 years period from 1996 to2016. The volume of FDI to Nepal is rising taking a pattern of decreasing and increasing throughout the study period.
- ii. The finding of the study was the total approved FDI to actual FDI is very low. Not all the approved amount has been fully actual. The FDI approved reached Rs. 190803.6 millions and the actual FDI reached only Rs. 76943.9millions. The actual FDI amount is only 41.37percent of the total aid commitment. One can see loophole here and there is huge difference in approved and actual FDI.
- iii. In Nepal particularly sectors like construction, manufacturing, energy based, service and tourism sector has been attracting large volume of the FDI in recent years. Of total FDI received till 2016, Energy based sectors has been receiving 41.3percent of the total FDI followed by 25.8percent in Manufacturing sector. The other sectors receiving significant amount of FDI

are Service sector with 18.6percent as well as 10.1percent by Tourism sector.

- iv. Among the various sectors receiving FDI manufacturing sectors, service sector, tourism sector and energy-based sector has been employing huge numbers of workers. The manufacturing sector has been employing 95883 workers with highest number followed by service sector employing 59929 workers and 44412 workers in the tourism sector. The least number of employments are seen in construction sector and mineral based sectors. When one can look after the scale wise investment in industries in Nepal the FDI are mainly invested on the small-scale industries with large number of workers benefitted by the employment opportunities which is around 85percent of the total employment followed by medium and large-scale industries.
- v. The impact of FDI on GDP and trade are found to be positive and significant. Using regression analysis, it is found that there is positive impact of FDI on GDP. The value of R^2 is 0.522 implying that predictor FDI accounts 52.2percent variation in the total GDP. The slope of FDI is 75.12 which imply that when FDI inflow increase by Re.1 million, GDP increases by Rs.75.121millions. Similarly, there is positive correlation between FDI and Trade. The value of R^2 is 0.567 implying that predictor FDI accounts 56.7percent variation in the total trade. The slope of FDI is 36.215 which imply that when FDI inflow increase by Re.1 million, total trade increases by Rs.36.215 millions.
- vi. The impact of FDI on export and import are found to be positive and significant. Using regression analysis, it is found that there is positive correlation between FDI and Export. The value of R^2 is 0.526 implying that predictor FDI accounts 52.6percent variation in the export. The slope of FDI is 2.072 which imply that when FDI inflow increase by Re.1 million, export increases by Rs.2.072 millions. Similarly, there is positive correlation between FDI and Import. The value of R^2 is 0.554 implying that predictor FDI accounts 55.4 percent variation in the import. The slope of FDI is 34.143 which imply that when FDI inflow increase by Re.1 million, import increases by Rs. 34.143 millions.

CHAPTER V

SUMMARY AND CONCLUSIONS

5.1 Summary

Nepal is one of the least developed countries with low level of saving and investment. Nepal suffers from serious problem of resource gap. The revenue collection of Nepal is enough to cover its recurring expenditures. The GON is not able to raise adequate revenue from domestic sources to finance its development projects. The development of Nepal has been patchy and incomplete with limited domestic capital despite having high potential for the exploitation of natural resources. So, GON has been receiving foreign investments from various bilateral as well as multilateral corporations. India, China, Singapore, Ireland, South Korea, Australia, Bangladesh, Honkong, Japan are major investors in various activities in endeavoring to sustainable economic growth. In the developing countries like Nepal, due to the insufficiency of financial capital, the adequate mobilization of international resources could not have been made without FDI in order to accelerate the rate of economic development and growth. If the utilization of FDI is effective, FDI plays a vital role in developing towards the modernization of under developing countries. FDI has been a dominant feature of the relationship between developed and developing countries since 1990s; FDI recipients have been major sources of external finance for the majority of countries in Africa and Asia. The impact of FDI on economic growth remains a subject of considerable debate. Its performance varies across countries due to geographical location, policy environments and socio-economic conditions. The history of FDI is not very old for Nepal.

The study attempted to get various empirical results using only secondary data. The required data are also obtained from various sources like Economic surveys, Ministry of Finance (MOF), Ministry of Industry, Commerce and Supplies (MITC) Nepal Rastra Bank (NRB), National Planning Commission (NPC), Central Bureau of Statistics (CBS), Quarterly Economic Bulletin (NRB), World Bank, OECD etc. In addition to those data and information were collected from different newspaper as well as published and unpublished documents of various research

institutions. The time coverage of the study is from FY 1996 to FY 2016. The regression analysis is used to examine the impact of FDI on GDP.

The study main focus was to show the trend and pattern of FDI in Nepal. In the period of 21 years, the volume of FDI reached Rs.190803.6 million in Nepal. Likewise, FDI has covered an average of 0.613 percent in the total GDP of Nepal. The volume of FDI to Nepal is rising taking a pattern of decreasing and increasing throughout the study period. From 1996 to 2016, amount of actual FDI to Nepal amounts to Rs.76943.9 million which is 41.37 percent of total FDI approved. The study shows positive and significant impact of FDI in Nepal. Using regression analysis, we found that there is positive correlation between FDI and GDP.

The FDI in Nepal are mainly invested in small scale industries which also provides large number of employments in Nepal. The highest number of projects generally seen in service, tourism and the manufacturing sectors in Nepal. The highest investments are mainly seen in the energy sector followed by service and the manufacturing sector.

5.2 Conclusions

FDI has increased significantly after the restoration of democracy and implementation of liberalization and privatization policies in in Nepal. Nepal has been receiving low level of FDI up to FY 2007 due to political instability. After FY 2008, FDI flows to Nepal has been significantly receiving increasing amount of FDI due to change in political structure, stability in the government as well as adopting new system of federal democratic republic.

The share of actual FDI is less to amount of approved FDI. The average actual FDI is 41.37 percent of approved FDI. This shows that there is wide gap between approved and actual FDI.

In Nepal the FDI has been largely focused on construction, manufacturing, energy based, service and tourism sectors. Energy based sector received large amount of FDI. Likewise, manufacturing, service and tourism sectors are also receiving significant amount of FDI. Most of the FDI are concentrated on small

scale industries which provides large number of employment opportunities.

The study positive relationship between FDI and other economic variables like GDP, trade, export and import. Using regression analysis, it was found that there is impact of FDI on GDP of Nepal. Likewise, there was positive influence of FDI on trade, export and import.

5.3 Recommendations

Some weaknesses still can be noted in receiving and utilizing FDI to Nepal. On basis of the present study, following recommendations are made:

- i. The above analysis show that despite the growing salience of FDI, not only in the traditional business related activities but also for financing development, LDCs has not been able to tap this opportunity. It is disheartening to note that despite a recent growth in the FDI achieved by Nepal, the country still have the mere 1.6percent of FDI of the total GDP.
- ii. Actual FDI to Nepal is not satisfactory. The approved FDI has no significant if the amount is not actual. Investors has always advocate for the better utilization of investment to Nepal under different sectors. Administrative hurdles and hassles, frequent change in government, corruption and lack of strong monitoring mechanism for investors driven projects are making investors to think twice before taking approval for investment plans. So, the above mentioned difficulties should be solved in order to garnish the higher amount of FDI in the country.
- iii. The GON should make a priority list and conduct Cost Benefit Analysis before formulating any development projects and investment summit.
- iv. Garnering higher amount of FDI should be taken as a matter of pride by the political leaders and bureaucrats of Nepal which certainly increases the economic opportunities for Nepali people as well as foreign nationals but it does not guarantee that the FDI received will be used in productive sectors. So, FDI should be utilized in productive sectors.

- v. The GON should measure the impacts of FDI after the completion of projects and in few year of operation of the industry.
- vi. Nepal should allow large amount of FDI in production sectors as well as new and emerging technologies such as information technologies, digitization.
- vii. Under FDI, major investments are in various urban areas. Only minor investments are in remote and backward areas of Nepal. So, these investments should be expanded in remote areas.

APPENDIX A

Foreign Direct Investment Approved and Actual

In Nrs. Million

Year	Approved FDI	Actual FDI	percent of actual FDI
196/97	2219.9	1621	73.02130727
1997/98	2395.5	685	28.59528282
1998/99	2000.3	578	28.89566565
1999/00	1666.4	233	13.98223716
2000/01	1417.6	-33	-2.327878104
2001/02	3002.6	-282	-9.391860388
2002/03	1209.7	961	79.44118376
2003/04	1793.8	0	0
2004/05	2764.8	136	4.918981481
2005/06	1635.8	-470	-28.73211884
2006/07	2606.3	362	13.88942179
2007/08	3186	294	9.22787194
2008/09	9812.6	18290	186.3930049
2009/10	6255.1	2852	45.59479465
2010/11	9100	6437	70.73626374
2011/12	10053.2	9195	91.46341463
2012/13	7138.3	9082	127.2291722
2013/14	19818.7	3195	16.12113812
2014/15	20107.4	4383	21.79794504
2015/16	67,480	5921	8.774451689
2016/17	15139.6	13503.9	89.19588364
Total	190803.6	76943.9	(Avg)41.37267444

Source: Nepal Rastra Bank, 2018 Nepal

APPENDIX B

GDP and FDI in Nepal

In NRs. Million

FY	GDP	FDI
1996/97	452158	2219.9
1997/98	491869	2395.5
1998/99	485626	2000.3
1999/00	503364	1666.4
2000/01	549425	1417.6
2001/02	600706	3002.6
2002/03	605088	1209.7
2003/04	633048	1793.8
2004/05	727393	2764.8
2005/06	813026	1635.8
2006/07	904372	2606.3
2007/08	1032562	3186
2008/09	1254544	9812.6
2009/10	1285499	6255.1
2010/11	1600266	9100
2011/12	1891357	10053.2
2012/13	1885151	7138.3
2013/14	1924425	19818.7
2014/15	2000297	20107.4
2015/16	2131355	67,480
2016/17	2114712	15139.6

Source: Nepal Rastra Bank, 2018, Nepal

APPENDIX C

Export Import and Total Trade in Nepal

In NRs. Million

Year	Export	Import	Total Trade
1996/97	22636.5	93553.4	116189.9
1997/98	27513.5	89002	116515.5
1998/99	35676.3	87525.3	123201.6
1999/00	49822.7	108504.9	158327.6
2000/01	55654.1	115687.2	171341.3
2001/02	46944.8	107389	154333.8
2002/03	49930.6	124352.1	174282.7
2003/04	53910.7	136277.1	190187.8
2004/05	58705.7	149473.6	208179.3
2005/06	60234.1	173780.3	234014.4
2006/07	59383.1	194694.6	254077.7
2007/08	59266.5	221937.7	281204.2
2008/09	67697.5	284469.6	352167.1
2009/10	60824	374335.2	435159.2
2010/11	64338.5	396175.5	460514
2011/12	74261	461667.7	535928.7
2012/13	76917.2	556740.1	633657.3
2013/14	91994.4	714365.9	806360.3
2014/15	85319.1	774684.1	860003.2
2015/16	70117.1	773599.3	843716.4
2016/17	73049.1	990113.2	1063162.3

Source: Various Economic Surveys, MOF, Nepal

APPENDIX D

Number of Industry Registered with Foreign Investment Scale Wise in Nepal

Scale	No. of Projects	Total Amount of Foreign Investment In NRs. Million	No. of Employment
Large	283	149305	55395
Medium	409	26841	40901
Small	3786	51861	145440
Total	4478	228007	241736

Source: Industrial Statistics, MOI, 2016/17, Nepal

APPENDIX E

Industries Approved for Foreign Investment by Category (FY 2016/17)

Category	No. of Project	Total Capital In Nrs. Million	No. of Employment
Agro and Forest Based	253	5850.12	9371
Construction	46	3845.34	3151
Energy Based	78	157281.6	10958
Manufacturing	1044	98395.47	95883
Mineral	66	6538.12	8070
Service	1400	70733.54	59929
Tourism	1226	38547.05	44412
Total	4113	381191.24	231774

Source: Industrial Statistics, MOI, 2016/17, Nepal

BIBLIOGRAPHY

- Abdouli, M. & Hammami, S. (2017). "An Econometric Study of the Impact of Economic Growth, Human Capital and Environmental Degradation on FDI inflows in the African Mediterranean Countries", *Business Economics Journal*, 8, 280.
- Adhikari, R. (2013). "Foreign Direct Investment in Nepal: Current Status, Prospects, Challenges", *Working Paper* (No. 01/13).
- Adhikari, R. (2013). Foreign Direct Investment in Nepal: Current Status, Prospects and Challenges. SAWTEE Working Paper No. 1/13
- Alhijazi, Y. Z. D. (1999). "Developing Countries and Foreign Direct Investment", Retrieved from www.digitool.library.magill.ca.881/dlt/publish/7/21670.html
- Anwar S., & Cooray, A. (2015). "Financial Flows and Per Capita Income in Developing Countries", *International Review of Economics & Finance*, 35: 304 – 314
- Belem, Illiana., & Vasquez, G. (2006). "The effect of Trade Liberalization and Foreign Direct Investment in Mexico", Retrieved from www.theses.bham.ac.uk/89/1/vasquezgalan06phd.pdf.
- Bhattarai, P. (2005). "Migration of Nepalese Youth for Foreign Employment: Problems and Prospects", Report, Kathmandu: Youth Action Nepal.
- Charlotta, U. (2007). *Multinational Corporations and Spillover in Vietnam-Adding Corporate Responsibility*, Retrived from www.csr-weltweit.de/uploads/tx/fdi.csr-vietnamese12.pdf
- Cleeve E., Debrah Y. & Yiheyis, Z. (2015). "Human Capital and FDI Inflow: An Assessment of the African Case", *World Development*, 74:1-14
- Cosic, D., Dahal, S. & Kitzmuller, M. (2017). *Climbing higher: towards a middle income Nepal*, Washington, D.C.: World Bank Group
- Diana, V. M. (2007). *Foreign Direct Investment Location Determinations in Central and Eastern European Countries*, Unpublished Master's Thesis

- Dunning, J. H. (2004). *Industrial Reforms, FDI, and European Transition Economies*, International Business and Governments in the 21st Century, Cambridge University Press, 1-34, Retrived from www.reading.ac.uk
- Dunning, J.H. (1993). *Multinational Enterprise and the Global Economy*, Workingham Addison Wesley.
- Emrah, B. (2006). “*Casual Relationship between Foreign Direct Investment and Economic Growth in Turkey*”, Retrieved from www.diva_portal.org/diva/get/document
- Garrick, B. (2006). *Technology Adaptation from Foreign Direct Investment and Exporting: Evidence from Indonesian Manufacturing*, Retrieved from www.informalworld.com
- Gui – Diby S.L. & Renard, M.F. (2015). "Foreign Direct Investment Inflows and the Industrialization of African Countries", *World Development*, 74: 43- 57
- Imai, K., Gaiha R., Ali, A. & Kaicker, N. (2014). "Remittances, Growth and Poverty: New Evidence from Asian countries", *Journal of Policy Modeling*, 36 (3): 524 – 538
- Jacinta, C. (2004), *A Comparative Analysis of Japanese and American Foreign Direct Investment in Thiland*, Retrieved from www.wbiconpro.com?15-hasnahh-malay.pdf
- Jing, Z. (2008). *Foreign Direct Investment, Governance and Environment in China: Regional Dimension*
- Johnnes, C. J. (2004), *Foreign Direct Investment and neighbouring influnces*, Retrived from www.upetd.up.ac.za/thesis/available/etd/00front.pdf.
- Khor, C. B. (2001). *Foreign Direct investment and Economic Growth*. Retrieved from www.oocities.com/hjmohd99/theses.html
- Klaus, E. M. (2005). *Foreign Direct Investment in Emerging Economies*, Retrieved from www.emergingmarketsforum.org
- Korhonen, K. (2005). *Foreign Direct Investment in Changing Political Environment*, Retrieved from www.hse.puol.lib.hse.fi/pdf/diss/a265.pdf

- Miguel, D. R. (2006). Is Foreign Direct Investment Beneficial for Mexico? An Empirical Analysis: 1960-2001, *World Development* Vol, 34, No 5, 802-817.
- MOF. (2017). *Economic Survey*, Kathmandu, Nepal: Author
- Mohammed, E. H. 1. & Mahfuzul, H. (2016). "Foreign Direct Investment, Trade, and Economic Growth: An Empirical Analysis of Bangladesh", *Economies*, 4(7), 36-49.
- OECD. (2002). *Foreign Direct Investment for Development: Maximizing Benefits, Minimizing Costs*, Paris, France: Organization of Economic Cooperation and Development.
- Okuda, S. (1994). *Taiwan's Trade and FDI policies and their effect on Productivity Growth*, *Developing Economies*, XXXII-4, pp.423-433.
- Pawin, T. (2001). *The Determinants of FDI Distribution across Manufacturing Activities in an Asian industrializing Country: A Case study of Japanese FDI in Thailand* Retrieved from www.scientificcommons.org/pawin_talerngsri.
- Pazienza, P. (2015). "The Environmental Impact of the FDI Inflow in the Transport Sector of OECD Countries and Policy Implications", *International Advances in Economic Research*, 21 (1): 105 – 116
- Rhys, J. (April, 2006). "Globalization, FDI and Employment in Vietnam", *Transnational Corporations*, Vol. 15, No.1, pp.115-142.
- Rudi, B. (2007). *FDI in China: Effects on Regional Exports*, Retrieved from www.igiturarchie.library.vu.nl/student-theses.pdf.
- Rydqvist, J. (2005). *FDI and Currency Crisis: Currency Crisis and the inflow of Foreign Direct Investment*, Retrieved from www.hj.diva-portal.org/smash/get/diva2.4438.
- Salisu, A. A. (2002). "The Determinants and Impact of Foreign Direct investment on Economic Growth in Developing Countries: A study of Nigeria", *Indian Journal of Economics*, pp.333-342.
- Samuel, A. (2009). "Can Foreign Direct Investment help to promote growth in Africa", *African Journal of Business management* Vol.3(5), pp.178-183.

- Sasidharan, S. & Ramnathan, A. (2007). Foreign Direct Investment and Spillovers: Evidence from Indian Manufacturing”, Retrieved from www.ideas.repec.org/e/psal40.html.
- Sutihar, D. N. (2017). *Quantative Techniques*, Kathmandu: Pairavi Prakashan
- Swapna, S. S. (2007). “Comparative Analysis of FDI in China and India: Can laggards Learn from Leaders?”, Retrieved from www.bookpump.com/dsp/pdf-b/1123981b.pdf
- Taewon, S. & Omar, J. K. (2003). *The Effect of FDI Inflows and ICT Infrastructure on Exporting in ASEAN/ATTA Countries: A Comparison with Other Regional Blocs in Emerging Markets*, Retrieved from www.emearldinsight.com/journals.htm
- Tatonga, G. R. (2007). *Trend and Determinants of Inward Foreign Direct Investment to South Africa*, Retrieved from www.eprints.ru.ac.za/1124/01/rusike-mcom.pdf.
- Thai, T. D. (2005). *The Impact of Foreign Direct Investment and Openness on Vitnamese Economy*. Retrieved from www.essays.se/essay/de881759c9.
- Vittorio, D. & Ugo, M. (2007). *Do Intuitions Matter for FDI? A Comparative Analysis for the MEAN Countries*, Retrieved from www.ideas.repec.org/p/pramprapa/2426.html.
- Yew, S. Y. (2007). *Economic Integration, Foreign Direct Investment and Growth in ASEAN Five Members*, Retrieved from www.psarir.upm.edu.my/5038.