

CHAPTER I

INTRODUCTION

1.1 Background of the study

Remittance income in developing countries has become a lifeline for economic development. By remittances we mean sending income in terms of money or goods in home by the migrants or workers who have their earnings outside their home country. Nowadays, the sources of foreign income have been growing rapidly in each year in developing countries. Since long time in Nepal, many migrants have been transferring their income through the unofficial channels. Today with establishment of different agencies like Western union, International Money Express (IME) etc. in several district headquarters of the country, the remittance flows has become popular for transferring cash or money in time to the recipients. However, it is difficult to calculate the exact size of remittance flows in Nepal due to the emergence of unofficial channels even though it has recorded in balance of payments account.

Therefore, it is necessary to make this sector more systematic and take additional initiative for the flow of remittance through the formal channel. It is a challenge of making institutional arrangement for imparting training and skill for raising the demand for the Nepalese labors at the international level and guides the flow of remittance to the productive sector.

The history of remittance began after the British-India and Nepal war during 1814-16. Since then, Nepalese youths used to be recruited in the British national army (Thieme & Wyss, 2005). The volume of remittance increased only after 1995, when the civil conflict destroyed the local labor markets and people started looking for overseas employment. The political turmoil blocked the industrial expansion and halted plenty of small medium enterprises (SMEs) all over the country reducing job opportunities (Muller & Thieme, 2007).

Globalization, pull factor and push factor in the economy are the main reason for the migration. In context of Nepal also, as migration a natural phenomenon of globalization era, many people are migrating. Both the developed as well developing economies have much to gain from an increased flow of worker. In the 1990s

increased globalization has effectively opened up new labor employment opportunities in newly industrialized countries, like Malaysia, Taiwan, and South Korea in Southeast Asia, and in the Gulf states in the Middle East, for men and women from South Asia, including Nepal. Even in developed countries, like Japan, the UK, Europe, and the USA, new opportunities for labor migrants have emerged, because of cheap labor. Because of the lack of opportunities and the less benefit, many people of developing countries are migrating to the developed countries and this rate has been increasing year by year. Foreign employment helps to divert large amount of remittance into national economy. Remittance has played a great role to sustain or maintain the economy as well as it helps to boost the economy of the country (Tandukar, 2010).

.Remittance inflow to Nepal is increasing dramatically in size over recent decades. It has been reached. It is one of the largest sources of financial flows for Nepalese economy. It is being a major source of foreign exchange earnings and sustaining the positive balance of payment in Nepal. The remittance is being a key factor to improve the status of households in the community level. The huge amount of remittance which is spending on different activities by households must have impact on Economic Growth through the channel of consumption, investment and saving. To increase the level of impact of remittances on GDP in Nepal the remittances money should be used on productive sector more (Dhungana, 2012).

Nepalese economy is largely based on agriculture, however, the large number of people leaving for foreign employment has been significantly increased due to incredible number of unemployment, poor development of industrial sectors, low level of salary and earnings, lack of business environment and so-on. Millions of youth are compelled to heading for overseas seeking employment due to failure in creating employment opportunities within the country. As a result, 250,000 people on averages leave the country annually in search of job since 2007 (MoF, 2010/11).

Nepali Migrant workers sent home \$8.1 billion in 2018, making it is the 19th biggest beneficiary of funds sent by migrants around the world, according to report released by World Bank. The remittances were up 16.39 percent year on year despite a drop in the number of departures. As a share of the gross domestic product for 2018, Nepal is among the top five recipient smaller economies, along with Tonga, Kyrgyz Republic,

Tajikistan and Haiti. Five south Asian countries are in the top 20 list of biggest beneficiaries of remittances, with Nepal taking the fourth spot in the region. It is behind India (78.6 billion), Pakistan (\$21 billion) and Bangladesh (15.5 billion) but ahead of Silence (\$7.5 billion) in terms of remittances, according to the World Bank's Migration and Development Brief released (Prasain, 2019).

The Bank estimates that officially recorded annual remittance flows to low- and middle-income countries reached \$529 billion in 2018, an increase of 9.6 percent over the previous record high of \$483 billion in 2017. Global remittances, which include flows to high-income countries, reached \$689 billion in 2018, up from \$633 billion in 2017. Regionally, growth in remittance inflows ranged from almost 7 percent in East Asia and the Pacific to 12 percent in South Asia. The overall increase was driven by a stronger economy and employment situation in the United States and a rebound in outward flows from some Gulf Cooperation Council (GCC) countries and the Russian Federation. Excluding China, remittances to low- and middle-income countries (\$462 billion) were significantly larger than foreign direct investment flows in 2018 (\$344 billion). Among countries, the top remittance recipients were India with \$79 billion, followed by China (\$67 billion), Mexico (\$36 billion), the Philippines (\$34 billion), and Egypt (\$29 billion). In 2019, remittance flows to low- and middle-income countries are expected to reach \$550 billion, to become their largest source of external financing (World Bank, 2019).

1.2 Statement of the problems

Worker's Remittance has been one of the major sources of foreign exchange earnings. Few years Nepalese worker's remittances are rapidly increasing. Despite a constant rise in remittance earning, the productive use of worker's remittances has been the matter of concern such as Industry, Hydropower, Agriculture and Tourism. While the direct economic impact of remittances to alleviate poverty is not much controversial, the non-securing consequence of remittance, such as impact on health, education, gender issue, social participation (Pant, 2011). Worker's Remittance also affect the gross domestic product (GDP), consumption(C), saving(S) and investment (I). So, the study under consideration was concerned with contribution of workers' remittance on National economy. This present study is carried out to answer the following research questions:

- i. What is the trend of workers' remittance, GDP, consumption, saving and investment?
- ii. What is the impact of workers' remittance on GDP, consumption, investment and saving?

1.3 Purposes of the study

The main purpose of the study is to examine the impact of remittance on GDP, C, I and S and also analyze the trend of workers' remittance, GDP, C, S, and I. The specific purposes of the research are as follows.

- i. To analyze the trend of workers' remittance, GDP, consumption, saving and investment.
- ii. To examine the impact of workers' remittance on GDP, consumption, saving and investment.

1.4 Significance of the study

The role of workers remittance in economic development of recipient countries is considered to be an important area of research. It can play significant role in making overall development of the nation if inward remittance is used to enhance productive sector of the nation. So to advocate about contribution of workers' remittance upon national economy, it is necessary to examine the impact of workers' remittance on GDP, consumption, saving and investment of National economy. So, this study has tried to analyze the trend of remittance, GDP, consumption, saving and investment of the National economy. Furthermore this research is assumed to be useful for further researcher to conduct a research in this field. The study is helpful to government to provide guidance on the prudent use of those funds, and for developing countries to develop policies that will ensure that the growth is efficient and well planned. This study provides information for policy-makers in order to formulate wise policies to channel the remittance flows into productive investment. This research may be helpful in formulating suitable policy to divert remittance towards domestic national investment to foster economic growth of Nepal.

1.5 Limitations of the study

This research will try utmost care to cover most of the important sector; but is still subject to limitation. Being a student, lack of the sufficient time and resources are the major limitation and other some limitations are as follows.

- i. The study is based on the impact of workers' remittance only on four macroeconomic variables i.e. Gross Domestic Product (GDP), Saving(S), Consumption(C) and Investment (I).
- ii. The accuracy of finding depends on the reliability of available information. Since the study is mainly based on the published secondary data and gathered from related sources.
- iii. The data of remittance and other selected macroeconomic variables are taken from Nepal Rastra Bank (NRB), Economic Survey and Ministry of Finance (MOF) for the period of 1990/91 to 2018/19 AD.

1.6 Chapter Plan

Chapter I: Introduction

This chapter includes background of the study, statement of the problem, purpose of the study, significance and limitations of the study.

Chapter II: Literature Review

This chapter deals with the theoretical review, determinants of remittances, theories of growth, review of previous national and international studies and research gap of study.

Chapter III: Research Methodology

This chapter deals with a research design, population and sample, source of data, data collection and processing procedure and data analysis tools and techniques.

Chapter IV: Results

This chapter fulfills the purposes of the study by presenting the data and analyzing them with the help of various statistical tools and techniques followed by methodology.

Chapter V: Conclusions

This chapter deals with the discussion, conclusion and implication for the improvement of effective remittance utilization.

References and appendices are also attached at the end of the study.

CHAPTER II

LITERATURE REVIEW

Review of Literature is concerned with the past findings related to the topic that provide the base for the further research or study. This chapter acknowledges the relevance of the various literatures on remittance and economic growth theory. The evaluation of international and national review of previous studies has been discussed in this chapter.

2.1 Theoretical Review

Today the term remittance has taken a central place in debates among development experts all over the world owing partly to the fact that its volume is growing at an exponential rate in recent year. The renewed debate started particularly after 1990s when it was observed that the dependency theory and structural views on remittances, which dominated the decades of 1970s and 1980s and maintained a pessimistic view on remittances, witnessed a downfall. The dependency theorists were of the view that remittance never contributes to the development of underdeveloped countries mainly for the reason that international migration encourages brain drain from the developing countries depriving them of the human capital that they desperately need to meet their development goals. Prior to the dependency and structural views, however, the development list and neoclassical thinkers during 1960s and 1970s had maintained optimistic views on remittances believing that capital and knowledge transfer by migrants would help achieve development needs of least developed countries in the world. The same view has taken incarnation at the start of this century bringing back the debate about remittances on the floor once again.

The major foreign income source to both the households and the government is remittance. It is generally perceived that international migration attributes mostly to 8 home country and country of destination. Aspects like economic, social and to some extent, political get highly flourished in home countries. Economically, the home countries could reap enormous benefits such as foreign exchange remittance, investment, technology transfer and training for its labor force. Socially, emigration to a developed country brings the cultures of the two relevant societies in greater contact, and the ideas, attitudes, policies and practices that help to foster economic

and social development in a tighter bondage. The trend of remittance has had an important implication for the economies seen both in micro and macro perspective.

2.1.1 Determinants of remittance

The literature on remittances identifies three theories to explain the flow of remittances. These are; Pure Altruism, Pure Self Interest and Tempered Altruism which is also referred to as Enlightened Self Interest. Most discussions in the literature are centered on the first two of them. These theories illustrate that remittances are sent mainly as a result of pure altruistic and self-interest motives(Haas, 2007). The micro and macroeconomic determinants are as follows.

Pure Altruism theory

The Pure Altruism theory highlighted that migrants remit money back home in concern of the welfare of the remaining family members (Hagen-Zanker & Siegel, 2007). Chami et al. (2003) reported that in this theory, the migrant's utility is derived from that of his/her family back home. This implies that the migrant is motivated to remit more funds to his family when there are unfavorable economic conditions holding in the home country. The theory observed that remittances are “compensatory transfers” since they increase when the migrant's home country is faced with economic disruptions such as droughts and a financial crisis (Chami et al., 2003). In order for the migrant to remit more funds, the economic disruptions or “bad luck”, a term used by Chami et al. (2003), must be creating a shortfall for the remaining family.

As a result, the compensatory nature of remittances under the Pure Altruism theory implied that remittances are countercyclical, that is, they increase during times when there is deterioration in economic conditions in the business cycle Vargas-Silva(2009); Chami et al. (2003). The Bank of Uganda (2007) emphasized that altruistic remittances can be countercyclical to GDP patterns possibly because migrants tend to remit more during periods of economic disturbances in order for their families in the home country to smoothen their consumption. Also commented on behavioral patterns of remittances under a Pure Altruism theory, Brown (2006) suggested that there is an inverse relationship between the volumes of remittances and economic conditions holding in the 16 home countries. Under this model, favorable economic

conditions in the home country would imply a reduction in the volume of remittance inflows.

Pure self-interest theory

The Pure Self Interest theory is modeled around the argument that remittances are not always countercyclical. There are some instances or contexts where volumes of remittances reduce following poor economic conditions in the recipient country. In such a case, there is no inverse relationship between volumes of remittances and the economic performance of the home country as postulated by Brown (2006). In fact, there might be a positive correlation between volumes of remittances and economic performance of the home country where bad economic conditions may result in low volumes of remittances. Such behavioral patterns have led to the formulation of the Pure Self Interest theory. Lucas and Stark (1985) claimed that migrant's "self-interest can be one another motive for remittances. In this context, migrants remit money in order for them to invest or inherit in assets back home and also for them to return home with dignity .When there is deterioration in economic performance of the home country; migrants are most likely to remit less since the situation will have a negative impact on both investible and inheritable assets. There is most likely to be an increase in the volumes of remittances if the home economy is undergoing a favorable spell.

Tempered Altruism Theory

The tempered altruism or enlightened self-interest view of remittances is suggested as an alternative to the pure altruistic and self-interest motives. This proposed motive views remittances as a mutually beneficial arrangement between a migrant and his/her household Lucas and Stark (1985). This mutually beneficial arrangement or,,contract has two elements, investment and risk.

The tempered altruism and enlightened self- interest theory whereby remittances are viewed as a part of inter-temporal, mutually beneficial contractual 17 arrangements between the migrant and the family at home country. The contractual arrangements could be co-insurance, loan repayment and exchange of service.

2.1.2 Theories of Growth

The Solow Growth Model

The theory is based on neo-classical assumption and assumes a multifactor production function including labor and capital which are assumed to be close substitutes. It assumed that the production function increases with each input and input bears diminishing marginal return. When zero units of input are used for either K or L, then nothing is produced. Also the production function exhibits constant returns to scale. The Solow Model (1956, 1957) consists of a production function

Which is given by: $Y=F(K, L)$.

Where, Y = Output, K= Capital and L= Labor.

Capital stocks include plant and machinery, bridges, factories and labor represents economically active population. For the economic growth based on this model there must be an increment in the stocks of capital through investment and supply of labor through population growth. Investment on capital stocks depends on savings and remittance can be used as substitute or to increase the domestic fund hence increase in capital funds. Furthermore, future remittance inflow can improve the creditworthiness of domestic investors, which may result into lower cost of capital in remittance receiving economies.

The Endogenous Growth Models

It is an extension of Solow growth model. The objective was to explain how technological progress and economic growth become self-sustaining. In the exogenous models the steady-state growth is determined exogenously, for example technical change. In the endogenous growth models, the steady-state growth is determined endogenously. In these models, one of the determinants of growth (technology and labor employment) is assumed to grow automatically in proportion to capital. These models result in a production function of the form $Y=AK$ and are thus called the AK models. Among the models are the Harrod-Domar and the Frankel-Rommer models.

2.2 Review of Previous Studies

2.2.1 International Context

Giuliano and Aranz (2005) analyzed the impact of remittances on financial development and growth. The study employed the Generalized Method of Moments (GMM) to measure the relationship between *endogeneity* of remittances and financial development. The empirical analysis showed that remittances can promote growth in less financially developed countries. The study concluded that little systematic empirical study on the relationship between remittances and growth. Based on the finding of the study suggested that remittances help alleviate credit constraints on the poor, substituting for the lack of financial development, improving the allocation of capital, and therefore accelerating economic growth

Glytsos (2005) investigated the impact of exogenous shocks of remittance on consumption, investment, import and output in five Mediterranean countries. The study used Keynesian type econometric model with a dynamic perspective and a sound theoretical basis for estimating short and long-run multipliers of remittances, through which the impact of remittances on growth and other key macroeconomic variables is estimated. The study pointed to different inter-country priorities of remittance spending and to an asymmetric impact of remittance changes, in the sense that the good done to growth by rising remittances is not as great as the harm done by falling remittances. Based on the finding the study concluded that there was a significant impact remittance on growth. The study recommended that policy makers must design carefully import policies related to remittances, with a priority not so much to reduce imports and turn remittance spending to domestically produced goods, which may intensify inflation, but to shift imports from consumption goods to investment goods.

Fayissa (2008) investigated the effect of remittances relative to the other external sources of capital such as foreign aid and foreign direct investment on the economic growth and development of Sub-Saharan African countries. The study employed the GMM model to measure the relationship between remittance and economic growth of Africa countries. The finding of the study showed that a 10 percent increase in remittances lead to a 0.3 percent increase in the GDP per capita income. The study

concluded that remittances do positively impact on the economic growth of African countries. It recommended that this study can be useful for improve African countries' economic growth performance.

Vargas-Silva et al. (2009) analyzed the impact of remittances for promoting economic growth and reducing poverty in Asian countries using data for more than 20 countries in the region for 1988–2007. The study used econometric approach to measure the relationship between remittance, poverty and economic growth. The findings of the study showed that remittances only have a negligible effect on the overall poverty rate, but they tend to decrease the poverty gap and thereby ameliorate the depth of poverty. The study concluded that remittances positively affect home country real gross domestic product (GDP) per capita growth.

Muhammad and Ahmed (2009) examined the dynamic impact of remittance on economic growth of Pakistan. The study used a Keynesian type simultaneous econometric model with a dynamic perspective to measure the effects of remittances on macroeconomic key variables (private consumption, investment, imports and level of income. The study showed that the workers' remittances used mostly for private consumption and partially for imports but it contributed to the economy of Pakistan positively through multiplier process. This study concludes that workers' remittances have played a vital role in the economies of labor exporting developing countries.

Azam and Khan (2011) explored theoretically and empirically the impacts of workers' remittances on economic growth of Azerbaijan and Armenia's economies. The study used simple log linear regression model and the method of least square to measure the relationship between workers' remittances and economic growth. The finding of the study indicated that worker remittances are significant and have positive impacts on economic growth and development for the study area. The findings of the study suggested that the relevant authorities of both the countries need to formulate appropriate conducive policies in order to encourage worker remittances.

Yaseen (2012) observed the impacts of remittances on economic growth in a sample of 7 MENA countries. The study employed the fixed effects approach the empirical analysis points to the fact that institutions and financial development play an important role in how remittances affect economic growth. The finding of the study

showed that there was a positive relationship between remittances and financial development. The study recommended that this study to be useful as a base research for future research about remittances and countries continue to search for means to supplement domestic resources, maximizing FDI flows should top the policy priority towards expanding productive capacity via long-term investment that provides its own financing.

Javid et al. (2012) focused the impact of remittances on economic growth and poverty. The study employed the ARDL approach to analyze the importance of remittances inflow and its implication for economic growth and poverty reduction in Pakistan. The empirical evidence showed that remittances affect economic growth positively and significantly. Furthermore, the study also found that remittances had a strong and statistically significant impact on poverty reduction. So the important of remittance inflows cannot be denied in terms of growth enhancement and poverty reduction that consequently improves the social and economic conditions of the recipient country. The study recommended that the government should formulate the policy that enhances the amount of remittances by reducing the transaction cost of transferring the remittances through formal channel.

Khathlan (2012) examined the effects of worker remittance, gross fixed capitalformation, FDI, exports and inflation on economic growth in Pakistan during the period 1976-2010. The study used the autoregressive distributed lag (ARDL) test and the error correction model (ECM) techniques to establish the long-run and short -run relationship betweenworker remittances and economic growth in Pakistan. The study found that the existence of a positive and significant relationship between worker remittances and economic growth in the long-run and short-run in that country. The study recommended thatPakistan's current environment, policy makers must address trade-offs between rising prices versus decreasing employment, high-cost debt servicing versus low domestic capital formation, low-cost import versus high cost export inelasticity and political instability versus economic security.

Ukeje and Obiechina (2013) investigated the empirical impact of the workers' remittances on economic growth in Nigeria. The study used a time series data, from 1970-2010 in an error correction methodology (ECM), the long-run static model indicates that workers' remittances is significant and has positive impacts on

economic growth. The study found that significant positive contribution of workers' remittance inflows to economic growth. The study recommended that government should put in place, adequate infrastructure for attracting more remittances inflow into the economy through formal financial sector channel as well as encouraging the recipients to channel such funds into productive sector rather than enmeshed in non-productive activities. Ahmad et al. (2013) investigated the impact of foreign remittances on economic growth of Pakistan. The study employed multiple regression analysis to identify the relationship among the variables. The study found that foreign remittances have positive and significant relation with GDP of Pakistan while inflation and exchange rate has negative effect on economic growth. Foreign direct investment has positive but insignificant relation with GDP of Pakistan. The study recommended that Pakistan needs stable and visionary government to enhance foreign flow of money in the economy to boost investment and economic growth.

AL-Assaf and Al-Malik (2014) explored the impact of macroeconomic factors on workers' remittance in both host and home countries. The study employed the ARDL and VECM approaches to find out the main macroeconomic determinants that affect remittances to Jordan. The findings of the study showed that the speed of adjustment in the VECM is significant and relatively slow. The empirical results showed that macroeconomic factors of host countries are much more significant than home country macroeconomic factors. The study concluded that there was stable long run equilibrium relationship among the flows of remittances to Jordan and the macroeconomic variables in host countries, particularly Saudi Arabia and UAE. Base on the finding of the study considered as a very important issue that would open the gate for the Jordanian decision makers to implement more coordination with the host countries.

Hussain and Anjum (2014) explored the impacts of workers' remittance on GDP of Pakistan. The study employed generalized method of moments (GMM) to evaluate the remittance behaviors inflow to Pakistan. The study found that there is positive impact of worker 'remittances on economy. Base on the finding of the study concluded that workers' remittances are positive as well as significant with GDP growth and also playing an active role in Pakistan economy. The study recommended that remittances inflow to Pakistan are countercyclical, Government authorities of

Pakistan should improve GDP without minimize remittances inflow and financial sector should be improve for smooth and horizontal transaction of remittances and also this sector perform productive investment.

Kamran, Alam, Ghias and Ali (2014) explored the economic determinants of workers' remittances of Pakistan using annual data spanning from 1990 to 2010. The study used multiple regression equation to found empirical verify the economic determinants of workers' remittances of Pakistan. The study concluded that Pakistan's economic determinants all play a strong role in explaining remittances. The study suggested that accurate policies can direct remittance flows into more prolific investment activities in the future.

Rahman and Wadud (2014) attempted to identify the macroeconomic determinants of remittance inflows in South Asian countries. The study used the additively separable utility function as theoretical framework and the Arellano-Bover/Blundell-Bond Systems of Generalized Method of Moments (SGMM) method as empirical framework with data on five countries in South Asia over the period 1976-2012. The study found that the remittance inflows in South Asia are altruistically motivated by the economic condition of home country whereas they are motivated by self-interest in case of the host country's economic condition. The emigrant stocks abroad, financial development and political rights significantly and positively affect the remittance inflows. The impact of, 2001 on remittance inflows is also found significantly positive. This is probably as a result of receiving more remittances through formal channel instead of informal channel due to strict monetary regulation. The study recommended that well managed financial, political and macroeconomic environment and pro-growth policy formulation are crucial to attract more remittances in this region.

Aboulezz (2015) analyzed the impact of international remittances on economic growth in Kenya. The study also investigated the causality between international remittances and economic growth. The study used Granger Causality to investigate the causality between international remittances on economic growth in Kenya. The (ARDL) estimation method was used to determine this effect. The study showed that the international remittances indicators are significant factors influencing the economic growth in Kenya. The finding of the study concluded that economic growth

in the Kenya is largely driven by international remittances. The study recommended that the Government of Kenya should continue to pursue a high and sustainable economic growth rate to attract remittances inflow.

Karameliki and Bayar (2015) examined the relationship between economic growth, remittances, foreign direct investment inflows and gross domestic savings in Turkey during the period 1974-2013 by using Autoregressive Distributed Lag approach (ARDL). The study found that remittances, foreign direct investment and gross domestic savings had positive impact on economic growth. Based on the finding of the study recommended that remittances importance that the countries should create an investment environment which has sufficient institutional infrastructure.

Adarkwa (2015) examined the impact of remittances on economic growth in four selected West African countries: Cameroon, Cape Verde, Nigeria and Senegal. The study Used linear regression analysis to ascertain the relationship between remittance inflows and GDP it was found that inflow of remittances to Senegal and Nigeria has a positive effect on these countries' gross domestic product whereas for Cape Verde and Cameroon it had a negative effect. The study concluded that there is a positive relationship between remittance inflows and GDP in Senegal and Nigeria. However, the relationship between remittance inflows and GDP was negative for both Cameroon and Cape Verde. This study also provided evidence that it is not enough for remittances to increase within a country without them being used for productive activities as, without such practices, remittance inflows cannot contribute to development within receiving countries. Based on the finding of the study recommended that improve the impact of remittances on economic growth in Cameroon, Cape Verde, Nigeria and Senegal.

Salahuddin and Gow (2015) examined the relationship between migrant remittances and economic growth using the most recent panel data (1977-2012) for some of the largest recipient countries of foreign remittances in the world namely, Bangladesh, India, Pakistan and the Philippines. A cross-sectional dependence test (CD) was employed which confirms the presence of cross sectional dependence in the panel. The study employed CIPS panel unit root test that accounts for cross sectional dependence to test the stationarity of data. The long run relationship between economic growth and remittance was confirmed by the Panel Pedroni and

Westerlundco integration tests. The study employed the Pooled Mean Group (PMG) regression technique to estimate the short- and the long-run relationship between the two variables while controlling for country size and heterogeneity. The study concluded that highly significant long-run positive relationship between remittance and economic growth in these countries. However, there was an insignificant positive association between them in the short run. The study suggested that remittances are playing increasingly important role for these countries' economies and as such, they should continue with their pro-remittance policies looking combined with diversifying their manpower exports.

Sarkar(2016) analyzed the impact of workers' remittances on macroeconomic variables (GDP, consumption, imports, investment and inflation) of Bangladesh economy. The study employed the Regression analysis to measure the relationship between remittance and, macroeconomic variables of Bangladesh economy. The finding of the study showed that relationship between remittance and its growth affects on national economy. The study concluded that there were positive impacts on remittance and economic growth. The study recommended that this type of study will be useful in guiding the policy formulation process on how to target remittance for poverty alleviation.

Dastidar (2017) examined the empirical relationship between remittances and economic growth for a sample of 62 developing countries over the time period 1990–2014. The econometric findings indicated that, when estimated for all the countries in the sample, there is no evidence of a significant relationship between remittances and growth. The study concluded that remittance is not sufficient for growth. Thus, the extent of the benefit depends on domestic institutions and macroeconomic environment. So, the policymakers in the developing countries should not treat remittances as an alternative to these factors and pursue appropriate policies to increase investments and trade in their countries to promote faster grow.

Meyer and Shera (2017) examined to identify the significant relationship between remittance and economic growth (panel data) using multiple regression analysis model. Albania and five high remittance receiving countries during 1999-2013. Used empirical method in six European countries it has observed to receive high ratio in remittance to GDP.A fixed effected model was considered to analyzed the

explanatory variable as non-random using Panel data. After employing all these tests multiple regression analysis is conducted which shows that worker remittances is positively and significantly contribute in the economic growth of six countries. The study concluded that remittances do have positively impact on the growth of the GDP per capita of Albanian country. The study recommended that contribution of worker remittance is the significant and most important in economic growth. But its productive use can help the economy of these countries to maintain and improve the economic growth by investing this money into consumption and investments.

2.2.2 National Context

Pradhan et al. (2008) examined the effect of workers' remittances on economic growth in sample of 39 developing countries using panel data from 1980–2004 resulting in 195 observations. The study used both fixed-effects and random-effects approaches to measure the relationship between workers' remittance on economic growth. The empirical results showed that significant overall fit based on the fixed-effects method as the random-effects model is rejected in statistical tests. The study found that a significant overall fit. The study concluded that remittances have a positive impact on growth although the impact is not very large in size and the coefficient of the remittances variable is significant in two of four specifications.

Srivastava and Chaudhary (2007) analyzed the impact of remittance on three development indicators viz. GDP, GNP and PCI of the nation which are also the dependent variables of the proposed models. The study used the linear and log-linear models under multiple regressions to measure relationship between remittance economic developments. The study found that positive except for labor force, but they are marginal which show that remittance has not been used effectively so as to increase the real growth rates of the economy. The study concluded that positive impact on the PCI but it is comparatively low (four percent in nominal and one percent in real terms). The study recommended that funds should be kept in proper channels in different layers of the economy to meet twin goals: poverty alleviation and sustainable development of Nepal.

Ojha (2019) analyzed the remittance status and contribution to GDP in Nepal. The study used regression model to analyze the impact of remittance inflow on economy

by computing regression equation for different samples. The study found that higher the remittance inflows, foreign aid, capital information, import and broad money supply, better would be the economic growth of the nation. Base of the finding of the study concluded that remittance is the most significant sources of GDP and per capita income in Nepal. This study recommended to planners, researchers for further study on remittance and its impact on GDP of a country and the government to formulate appropriate economic policies.

Thagunna and Acharya (2013) analyzed the nine year remittance inflow and macroeconomic data of Nepal, and study the effect of remittance on each of those macroeconomic variables. The study used Unit Root Test, Least Squared Regression Analysis, and Granger Causality Test to empirically and theoretically investigate the impact of remittance of several macroeconomic variables. The empirical results suggested that remittance has more causality on the consumption pattern as well as the import patter, and less on investments. The study concluded that importance of channeling the remittance funds into the productive capital, mainly the public infrastructure, in comparison with the South Korean case study. The study would establish the importance of remittance in its role of triggering a kick start to the Nepali economy.

Uprety (2017) examined the impact of remittances on economic growth in Nepal by using Johansen co integration and error correction methods. The study employed the multivariate time series model in the form of a Vector Autoregressive (VAR) model to explore the casual relation among GDP per capita, remittances, consumption and investment in Nepal. Using annual data of remittances, GDP per capita, consumption and investment for the period of 1976–2013, this study found the evidence of co integrating relationship between these variables and that an increase in remittances deteriorates GDP per capita growth in Nepal. This study concluded that remittance is negatively related to per capita GDP in the short-run and there is no evidence of any impact in the long-run. The study recommended that the government needs to come up with policies and plans to tap and utilize remittances sent by migrant workers in the investment sector. Nepal needs to implement well thought out policy factoring into both domestic and global scenario.

Dhungel (2018) considered remittance as a focus variable with an aim to assess the link between remittance and growth. This study applied Autoregressive distributed lag (ARDL) model to examine the relationship between remittance and growth. All the variables included in the analysis became stationary after first difference. The result of bound test confirms that the variables are co integrated. It means the variables have long run relationship. The empirical result reveals that one percent increase in remittance increases the GDP by 0.36 percent in the long run. Similarly, the gross fixed capital formation, secondary school enrolment and the trade openness and per capita GDP have positive relationship. It implies that one percent increase in capital, labor and trade openness increases the per capita GDP by 0.82 percent, 0.46 percent and 0.30 percent in the long run respectively.

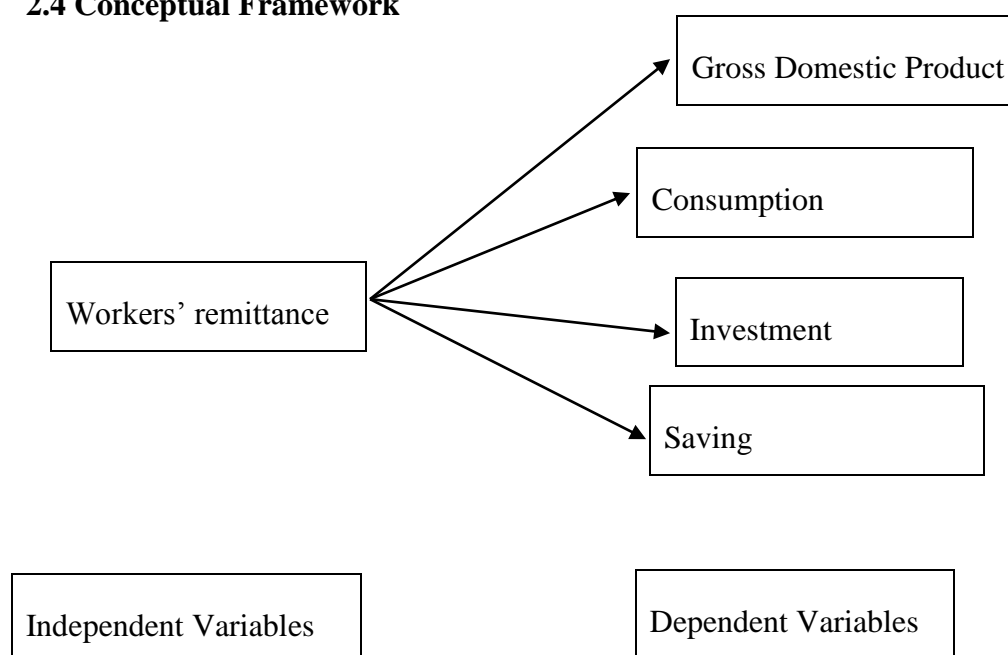
Pant (2008) explored remittance inflows to Nepal: Economic impact and policy options. The remittances have been an important avenue of support for family members remaining at home. As the number of workers going abroad for employment continues to rise, the corresponding growth of remittances has become a critical flow of foreign currency into Nepal. This has been partly the result of measures undertaken by the concerned officials to streamline financial systems, dismantling controls and creating incentives, with the aim of attracting remittances particularly through the official channels. Economic growth, interest rate and exchange rate policies are crucial determinants of remittance inflows. In order to further encourage the inflow of remittances to the country through official channels, and to promote the tendency to exchange these remittances of foreign exchange into local currency, it is imperative that these policies be conducive to the inflow of remittances.

2.3 Research Gap

From the review of literature it is found that many studies are taken on the remittances and GDP of Nepalese economy, poverty reduction, living standard of people, household pattern's, investment, foreign remittance and international economies. These studies were concerned with the trend of remittance inflow and impact remittance on macroeconomic variables. These studies were concerned with the four macroeconomic variable of economic like gross domestic product, consumption, saving and investment. In Nepal, very few studies were done for statistical test for the significance of workers' remittances on macroeconomic variables of Nepal. It takes

29years data for analysis of contribution of workers' remittances in national economy of Nepal.

2.4 Conceptual Framework



Gross Domestic Product (GDP)

Gross domestic product is the best way to measure a country's economy. GDP is the total value of everything produced by all the people and companies in the country. It's easy to calculate a country's gross domestic product using this standard formula: $C + I + G + (X-M)$. It doesn't matter if they are citizens or foreign-owned companies. If they are located within the country's boundaries, government counts their production as GDP.

Consumption

Consumption is the use of goods and services by households. In another word, consumption means the direct and final use of goods and services in the satisfaction of human wants. Consumption has been given the most important role in economy. Consumption leads to economic activity of country. According to Keynes theory, if consumption does not increase the demand for goods will decrease and then production will fall. It may lead to unemployment, thus consumption plays an important role in the determination of income, output and employment in a country.

Investment

Investment is the amount spends to add the stock of capital goods over a given period of time. It is the most important means of creating employment both directly indirectly through multiple effects, but at same time it is the most volatile component of GDP. Investment can be define as change in capital stock i.e. $I = \Delta k$. The fluctuations in investment lead to business cycle.

Saving

Savings is the portion of income not spent on current expenditures. Because a person or institutions does not know what will happen in the future, money should be saved to pay for unexpected events or emergencies. An individuals' car may breakdown, their dishwasher could begin to leak, or a medical emergency could occur or institutions were use further investment for organization betterment. Without savings, unexpected events can become large financial burdens. Therefore, savings helps an individual or institution or family become financially secure.

Investment

Investment is the amount spends to add the stock of capital goods over a given period of time. It is the most important means of creating employment both directly indirectly through multiple effects, but at same time it is the most volatile component of GDP. Investment can be define as change in capital stock i.e. $I = \Delta k$. The fluctuations in investment lead to business cycle.

CHAPTER III

RESEARCH METHODOLOGY

This chapter refers to the overall research methods from the theoretical aspects to the collection and analysis of data which helps us to find out accuracy, validity, and suitability. The justification on the present study cannot be obtained without help of proper research methodology. For the purpose of achieving the objectives of the study, the applied methodology was used. The research methodology has primarily evaluated the contribution of workers' remittance in Nepalese economy. The research methodology adopted in this chapter follows some limited but crucial steps aimed to achieve the objectives of the research.

3.1 Research Design

This research is aimed at studying the contribution of workers remittance in National economy. Descriptive and analytical research design is taken for research study using different statistical tools. It also analyzes the trends of remittance, trend of selected macroeconomic variables and the effect of remittance on GDP, S, I and C of Nepal.

3.2 Population and Sample

Population refers to the, entire group of people, events, or things of interest that the researcher wishes to investigate. The study takes 29 years data of remittances, GDP, S, I and C of Nepalese economy as the sample of the research.

3.3 Sources of Data

The sources of data indicate the place from where the information is gathered. The data for the study are remittances, GDP, S, I and C of Nepal. On the basis of techniques of its collection, secondary sources are used rather than primary sources in this research programmed. The data are abstracted from economic survey, Research department of NRB, MOF, etc. The relevant data will be instructed in meaningful tables and figures. It helps to find out the conclusion from the available data, with the help of various statistical tools.

3.4 Data Analysis and Tools and Techniques

Statistical tool is specially focused for data presentation and analysis. The research objective is practicable, the year wise increase of remittances was studied; the share of remittances to GDP, S, C and I were also analyzed and to find accurate result different statistical tools were used. The different statistical tools in the process of analysis are:

Mean (\bar{X})

Among different measures of central location, the best known and the most widely used is the arithmetic mean, or simply the mean. It is the sum of the values divided by their number. It can be calculated for any set of numerical data, so it always exists. The mean can be expressed symbolically as,

$$\text{Mean } X = \frac{\sum X}{n}$$

Where,

\bar{x} = Arithmetic Mean

$\sum X$ = Sum of all the values of the variable X

N= Number of observations

i. Standard Deviation (σ)

The standard deviation (σ) measures the absolute description. It is defined as positive square root of the mean of the square of the deviations taken from the arithmetic mean. If the standard deviation is greater, the magnitude of the deviations also is greater. A small standard deviation means a higher degree of true/ fact and vice-versa. This can be symbolically as:

$$\text{S.D } (\sigma) = \sqrt{\frac{1}{n} \sum (X - \bar{X})^2}$$

Where,

σ = Standard deviation

N= Number of observations

\bar{x} = Arithmetic mean

ii. Median

The median is the value separating the higher half from the lower half of a data sample. The median is used to measure of the properties of a data set in statistics and probability theory. The basic advantage of the median in describing data compared to the mean is that it is not skewed so much by extremely large or small values. This can be calculated by using formula as:

$$\text{Median (MD)} = (n+1)/2$$

Where,

n = number of observations

iii. Correlation Coefficient (r)

Correlation analysis is the statistical tools that can be used to describe the degree to which one variable is linearly related to another. The correlation coefficient measures the degree of relationship between two sets of figures. Correlation coefficient is most widely used in practice correlation can either be positive or it can be negative. It is denoted by r. Its value lies between -1 to +1. When $r = -1$, it means, there is perfect negative relationship between the variables and when $r = +1$, it means, there is perfect positive relationship between the variables. However, in practice such values of r is +1, -1 and 0 are rare.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

iv. Regression Analysis

Regression analysis is the development of the statistical model that can be used to predict the values of the dependent variable based upon the values of at least one

independent variable. Regression analysis helps us to know the relative movement in the variables.

a) Simple Regression Analysis

The simple regression equation of Y on X, which is used to describe the variation in the value of Y of given change in the value of X.

$$Y = a + bX$$

Where,

Y= Dependent Variables (GDP, Consumption, Saving and Investment)

X= Independent Variables (Remittance)

a= Regression constant

b= Regression coefficient

CHAPTER IV

RESULTS

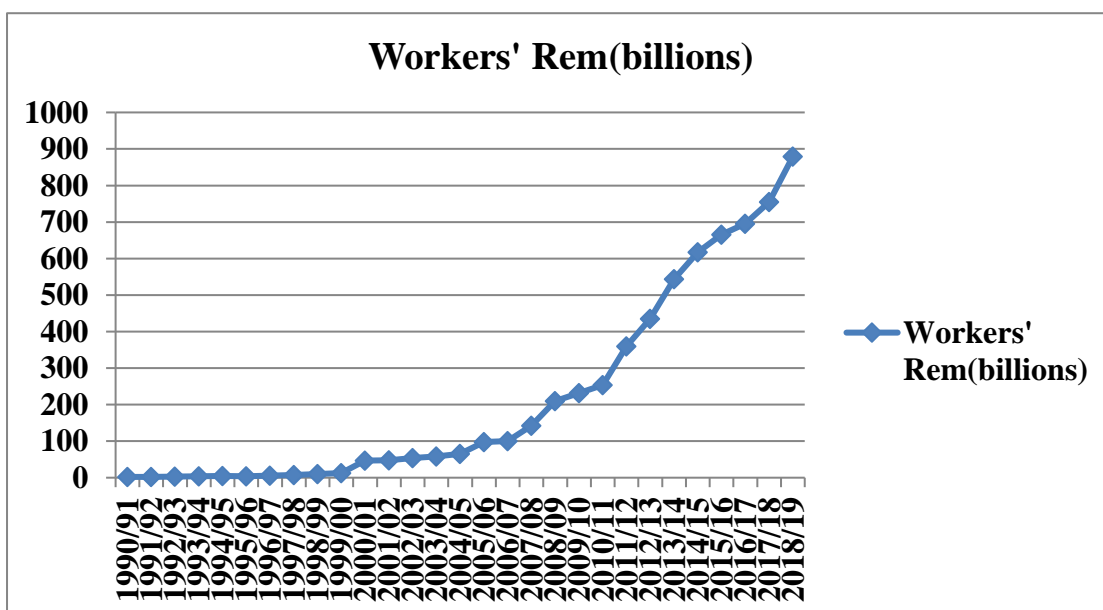
This chapter deals with presentation, analysis and interpretation of relevant data of Nepalese economy in order to fulfill the objectives of this study. For the obtaining best result, the data have been analyzed according to the research methodology as mention in third chapter. The purpose of this chapter is to introduce the mechanics of data analysis and interpretation.

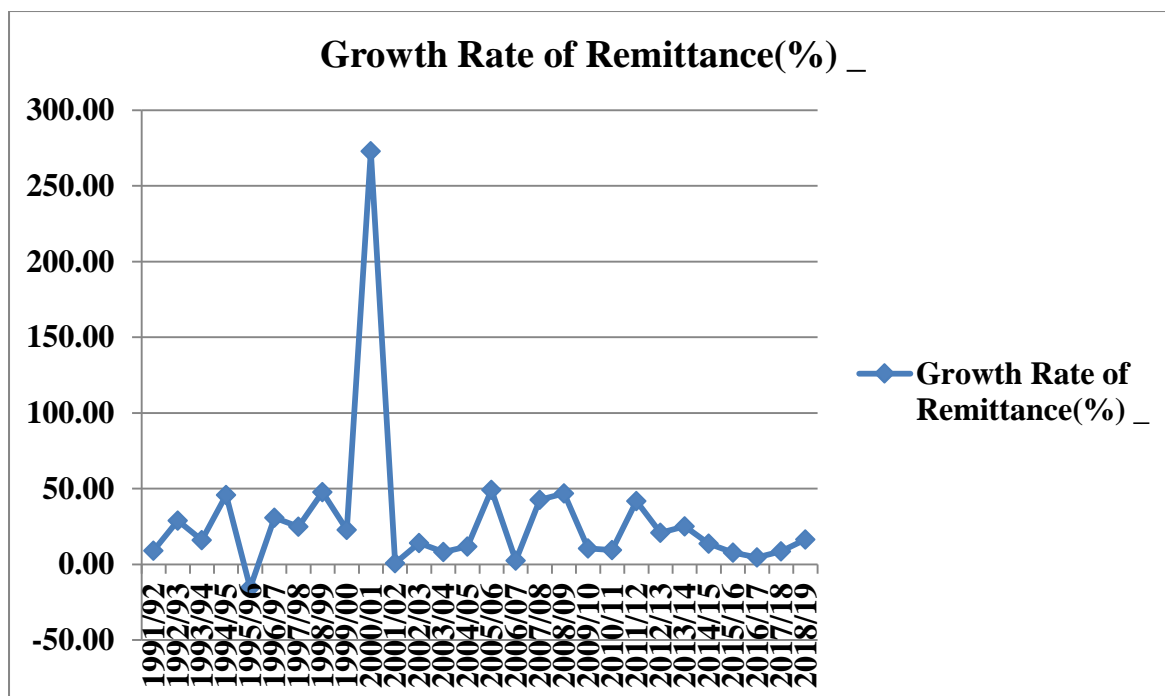
4.1 Data Presentation and Analysis

4.1.1 The Trend of Worker's Remittance in Nepal

Worker's Remittance is a major source of foreign currency to the developing nation like Nepal which is increasing dramatically over recent decades and has become a substantial component of making current account surplus in the balance of payments. The flow of the worker's remittances was increasing rapidly. The following figure shows the flow of worker's remittance of 29 years.

Figure: 4.1. Line graph showing the trend of worker's remittance in Nepal





Source: Appendix I

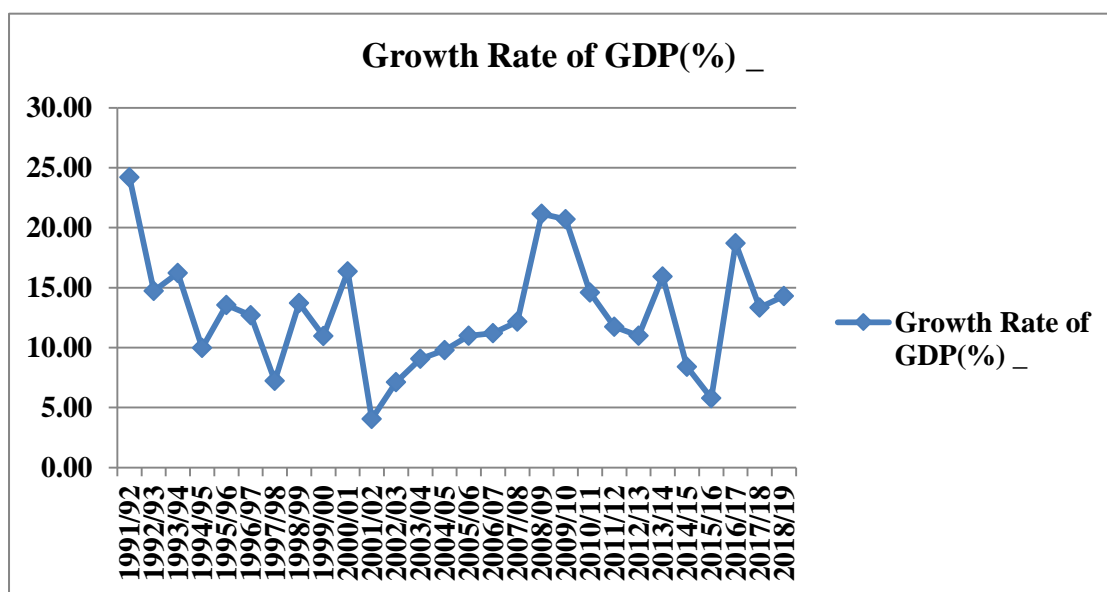
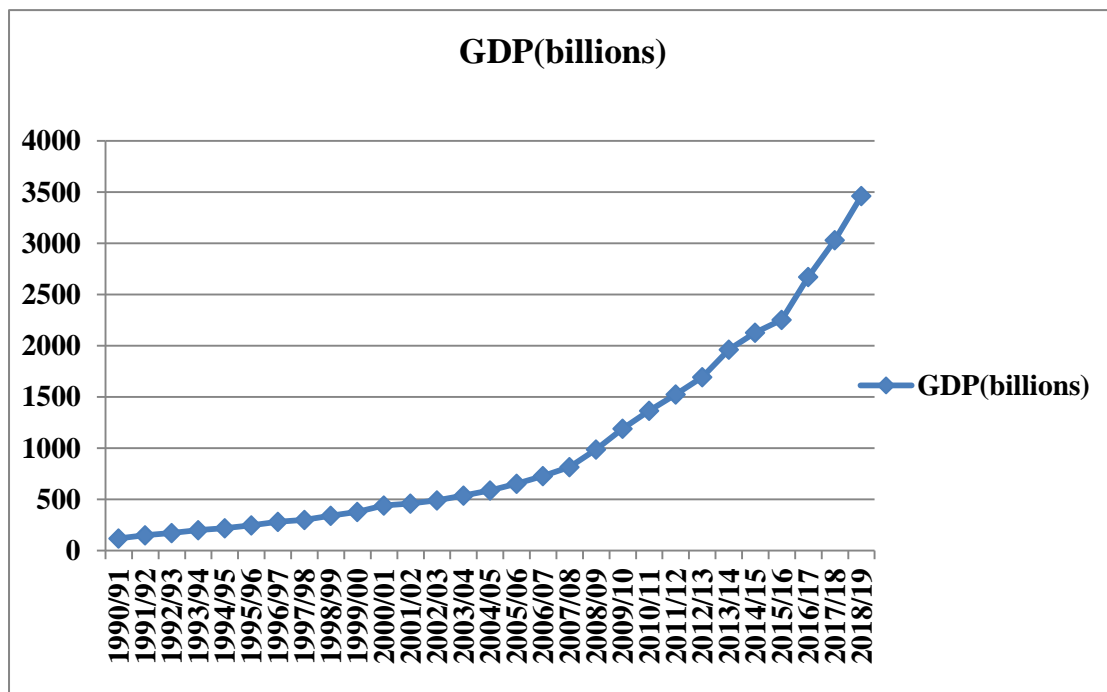
Figure 4.1 line graph shows that flow of remittance income was increasing every year. In 1990/91 remittance income was Rs. 2.13 billion and in 1991/92 remittance was Rs. 2.32 billion, which is increased by 8.92 percent than previous year. In 1995/96 remittance income decreased by 15.42 percent than previous year. In 2000/01, remittance increased by 272.99 percent than previous year which is highest percentage increased in remittance income. The next year 0.68 percent remittances increased in 2001/02. The remittance increasing trend was fluctuating every year but it is in increasing trend. In 2017/18 remittance income was Rs. 755.10 billion which was increased by 8.58 percent than previous year. More recent in 2018/19 remittance got by the country was Rs. 879.27 billion which increased by 16.44 percent than previous year.

It is concluded that, Nepal has been experiencing continuous fluctuation growth in remittance inflow last few decades. The flow of remittance income amount has increased every year. This showed that the income of remittance has contributed well for economy; it helps to reduce poverty reduction, increased living standard, consumption pattern of individual, etc. To clarify the trend of remittance inflow trend line was drawn. From the figure 4.1 shows that remittance inflow is in increasing trends.

4.1.2 The Trend of GDP in Nepal

Nepal is one of the major workers' remittances receiving country in the world based on GDP. With the increase of volume of workers' remittances, the GDP also increases. The following figure shows the flow of GDP period of 29 years.

Figure: 4.2 Line graph showing the Trend of GDP of Nepal



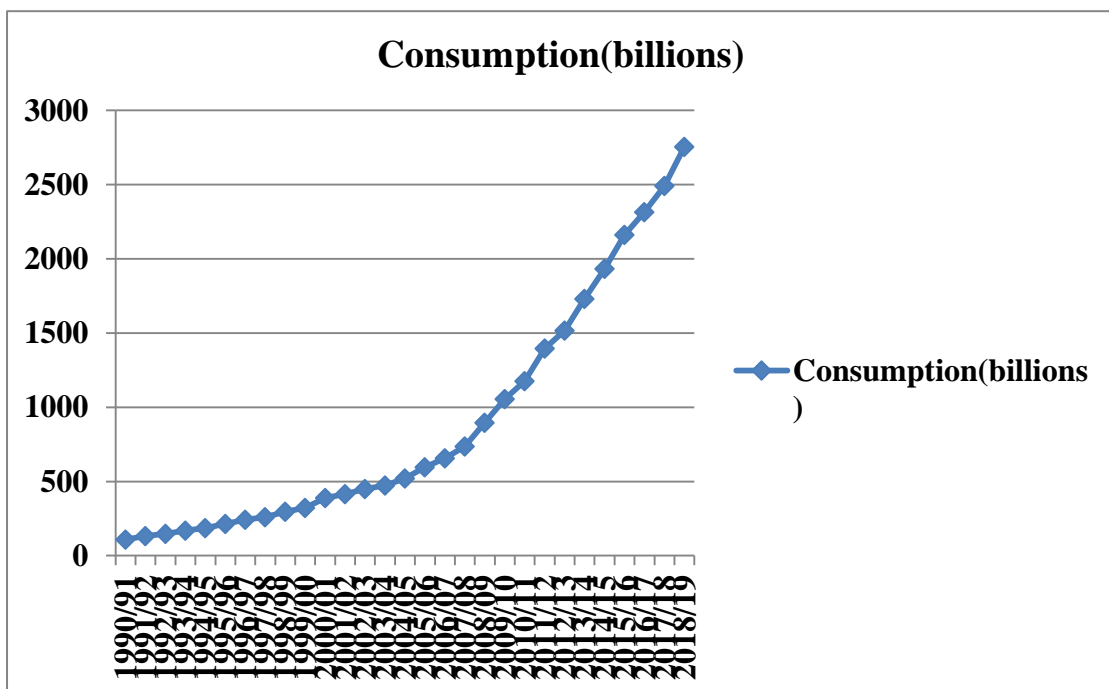
Source: Appendix I

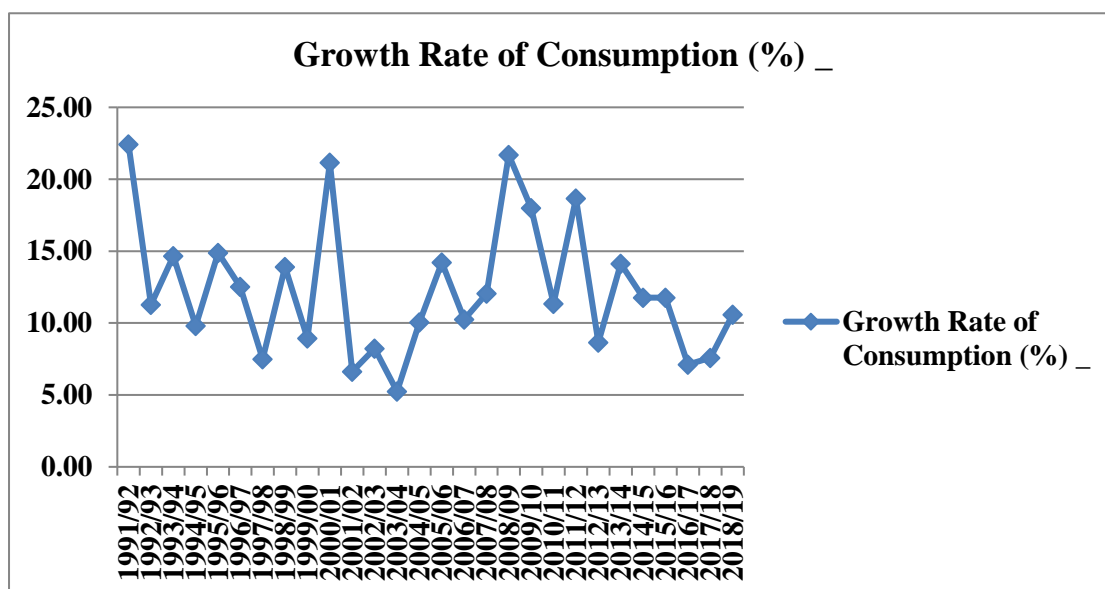
Figure 4.2 line graph shows that GDP was increased from starting period to ending period of the study GDP with Rs. 120.37 billion in 1990/91 to Rs. 3464.30 billion in 2018/19. The highest increase in GDP was 24.20 % in the year 1991/92. From the time period of 1992/93 to 1999/2000 the increase in GDP was 7 % to 16% every year. But after that it reduces in 2001/02. From the period 2001/02 to 2013/14 it was increasing smoothly. But in 2014/15 it was decreased by 7.53% than year 2013/14. In 2015/19 GDP was also decrease by 2.62%. After that it was increase with the 18.70% in the year 2016 /17. In year 2018/19 GDP was increase by 14.30%. So, the trend of GDP in Nepal is growing level through absolute value.

4.1.3 The Trend of Consumption in Nepal

As Nepal is one of the major workers 'remittances receiving country in the world. Mostly, received portion of amount is included in expenditure of household consumption pattern i.e. on food, rent, medical, education etc. The following figure shows the flow of consumption period of 29 years.

Figure: 4.3 Line graph showing the Trend of consumption of Nepal





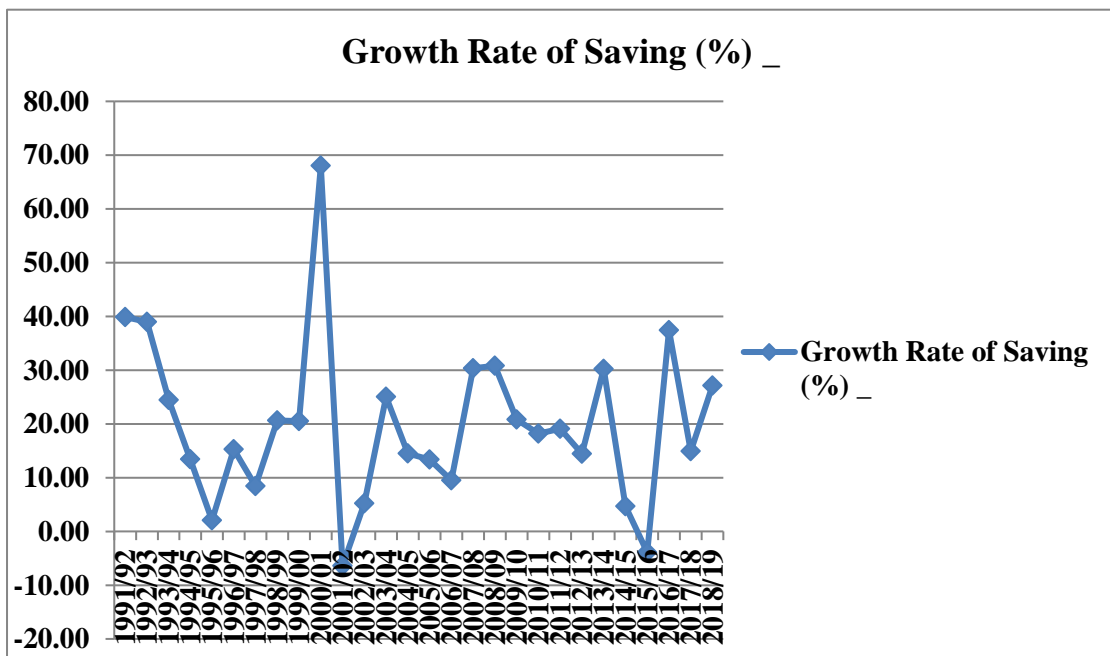
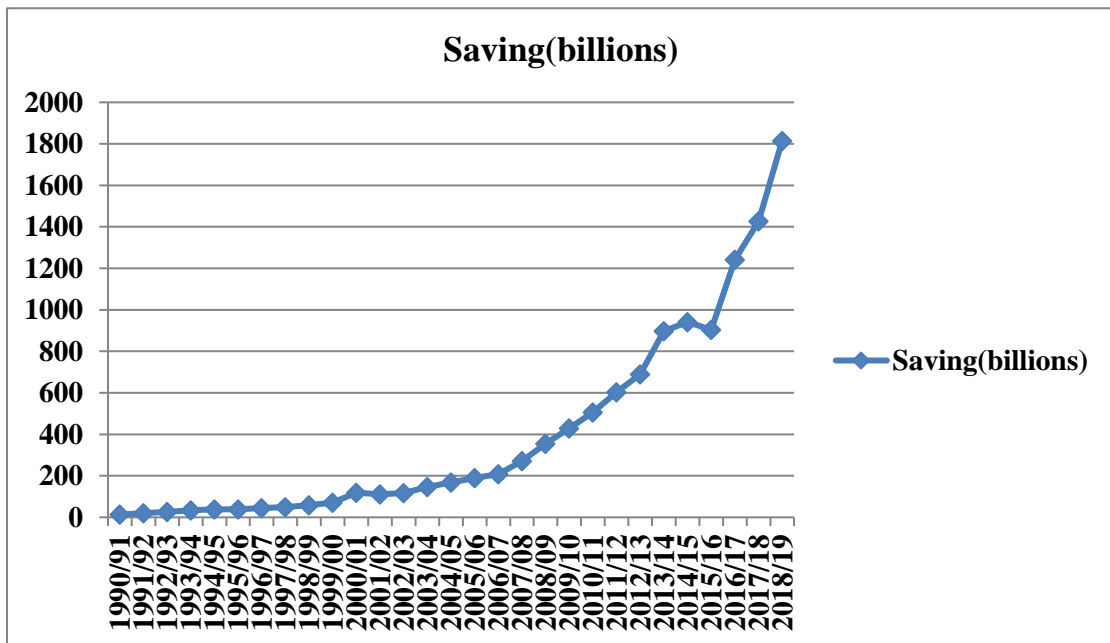
Source: Appendix I

Figure 4.2 line graph shows that consumption was increased from starting period to ending period of the study consumption with Rs. 108.86 billion 1990/91 to Rs. 2755 billion in 2018/19. The highest increase in consumption was 22.43% in the year 1991/92. From the time period of 1992/93 to 1999/2000 the increase in consumption was 7% to 21% every year. From the period 2001/02 to 2014/15 it was fluctuate smoothly. But in 2015/16 it was decreased by 4.64% than 2014/15 year. After that it started to increase again with the 7.12% and 10.59% in the year 2017/18 and 2018/19 respectively. So, the trend of consumption in Nepal is growing. It concludes that remittance plays crucial role in consumption sector.

Figure: 4.1.4 The Trend of Saving in Nepal

As the migrants to abroad increases, the flow of workers remittance also increases. Nowadays, saving deposits of various types held in banks of Nepal are modeled and evidence is discovered of strong relationship with the income level of migrants. Workers' remittance is found to be interest sensitive. The workers' remittance and its contribution on national economy can be measured with saving to workers' remittance ratio that has been presented in following figure.

Figure: 4.4 Line graph showing the Trend of Saving of Nepal



Source: Appendix I

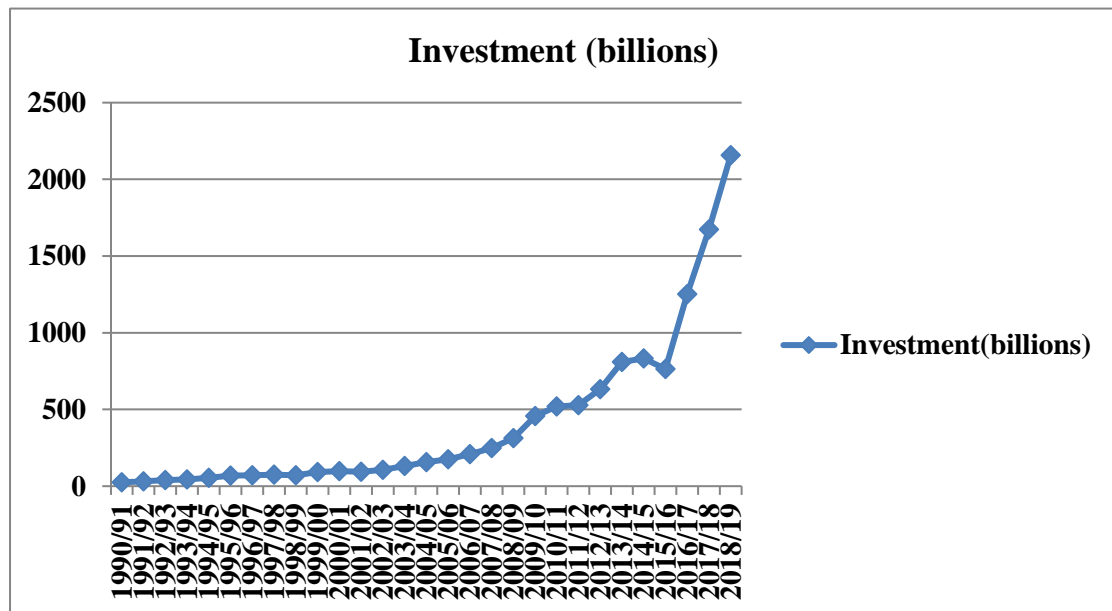
Figure 4.2 line graph shows that saving was increased from starting period to ending period of the study saving with Rs. 13.88 billion 1990/91 to Rs. 1814.50 billion in 2018/19. The highest increase in saving was 68.02% in the year 2000/0. From the time period of 1992/93 to 1999/2000 the increase in saving 2.04% to 38.84% every year. From the period 2001/02 to 2014/15 it was fluctuate smoothly. But in 2015/16 it was

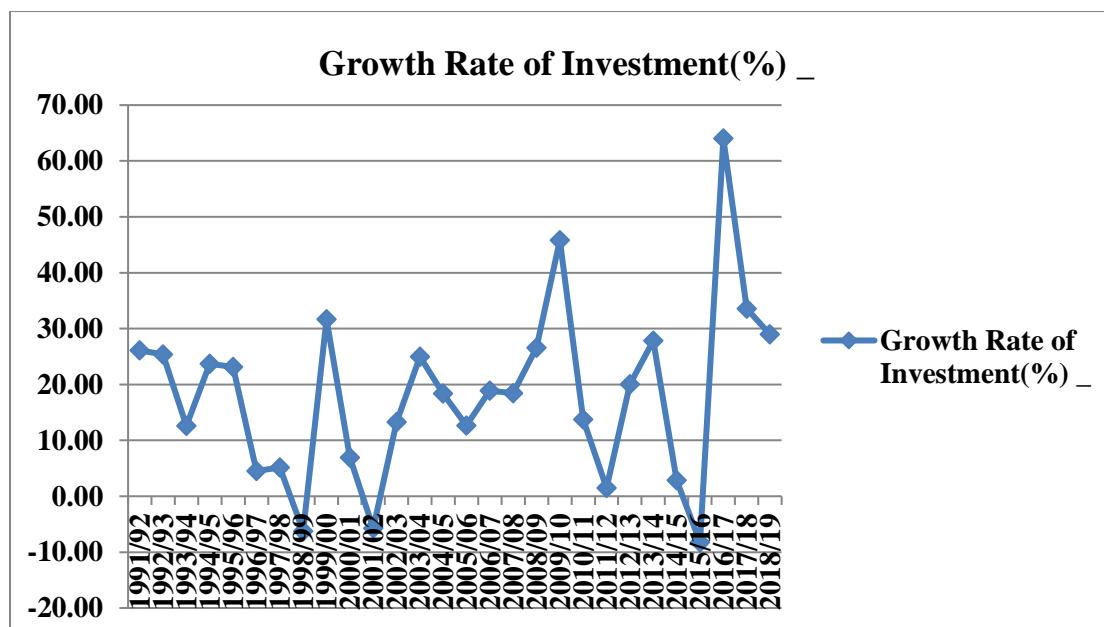
decreased by 3.88 than previous year. After that it started to increase again with the 37.42% in 2016/17 and year 2017/18 and 2018/19 growth rate of saving was 14.91% and 27.14% respectively. So, the trend of saving in Nepal is fluctuating. It concludes that remittance has given important role in saving sector and saving is increasing trend but growth rate is fluctuating.

Figure: 4.1.5 The Trend of investment in Nepal

The increasing amount of migrants remit to their home countries is of great concern, how the workers' remittance can foster investment by considering the institutional quality and financial infrastructure. The workers' remittance and its contribution on national economy can be measured with workers' remittance to investment ratio that has been presented in following figure.

Figure: 4.5 Line graph showing the Trend of Investment of Nepal





Source: Appendix I

Figure 4.2 line graph shows that investment was increased from starting period to ending period of the study investment with Rs. 13.88 billion 1990/91 to Rs. 2157.20 billion in 2018/19. The highest increase in investment was 64.02% in the year 2016/17. From the time period of 1992/93 to 1999/2000 the increase in investment - 6.25% to 31.70% every year. From the period 2001/02 to 2014/15 it was fluctuate smoothly. But in 2015/16 it was decreased by 8.25% than previous year. After that it started to increase again with the 64.02% in 2016/17 and year 2017/18 and 2018/19 growth rate of saving was 33.57% and 28.99% respectively. So, the trend of investment in Nepal is fluctuating. It concluded that this graph shows that absolute value of investment is increasing trend but growth rate is fluctuating.

4.2 Impact of Worker's Remittances on Selected Macroeconomic Variables must be analyzed by using different Statistical Tools

Statistical tools are the mathematical technique used to analysis and interpret of performance. It is used to describe the relationship between variables and interpret the result. Firstly descriptive statistical analysis is used to interpret the variables. Then the analysis includes correlation co-efficient and regression coefficient (r) between the following financial variable have been calculated and interpreted. The study calculated simple correlation and simple regression coefficient between workers'

remittance and macroeconomic variables (GDP, consumption, saving and investment).

Table: 4.1 Analysis of Descriptive Statistics of Worker's remittance and Macroeconomic Variables

Statistics/Variables	Remittance	GDP	Consumption	Saving	Investment
Mean	29.20	12.84	12.32	19.90	18.24
Standard deviation	49.93	5.19	5.10	15.42	15.90
Median	16.25	12.43	11.55	18.64	18.66
Minimum	-15.42	4.06	5.24	-3.88	-5.71
Maximum	272.99	24.20	22.43	39.84	45.83

Sources: Appendix II

Table 4.1 shows the descriptive statistics of independent variable (workers' remittance) and dependent variable (GDP, Consumption Saving and Investment). As per the above table, the average value of workers' remittance and macro-economic variables are 29.20, 12.84, 12.32, 19.90 and 18.24 respectively. After sorting the middle value the observation of workers' remittance is 16.25, GDP is 12.43, Consumption 11.55, saving 18.64 and investment is 18.66. Since the minimum and maximum data of workers remittance is -15.42 and 272.99, GDP is 4.06 and 24.20, Consumption is 5.24 and 22.43, saving is -3.88 and 39.84 and Investment -5.71 and 45.83 respectively. The standard deviation of Workers remittance is 276.10, GDP 946.25, consumption is 804.02, saving is 483.35 and investment is 529.05. It concluded that remittance have better average because it has highest average value in comparison other variables. Consumption is consistent because it has low standard deviation.

Table: 4.2 Simple Correlation Coefficient analyses between Worker's remittance and Macroeconomic variables

Correlations						
		Rem	GDP	C	S	I
Remittance	Correlation	1		.		
	Sig. (2-tailed)					
	N	28				
GDP	Correlation	0.159	1			
	Sig. (2-tailed)	0.418				
	N	28	28			
Consumption	Correlation	.440*	.681**	1		
	Sig. (2-tailed)	0.019	0.000			
	N	28	28	28		
Saving	Correlation	.662**	.691**	.481**	1	
	Sig. (2-tailed)	0.000	0.000	0.010		
	N	28	28	28	28	
Investment	Correlation	-.020	.575**	-.066	.379*	1
	Sig. (2-tailed)	0.308	0.001	0.739	0.047	
	N	28	28	28	28	28
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Appendix II

Table 4.2 shows the correlation coefficient between workers' remittance and GDP is 0.159. There is positive correlated and significant between workers' remittance and GDP.

Table 4.2 shows the correlation coefficient between workers' remittance and consumption is 0.440. There is positive correlated and significant between workers' remittance and consumption.

Table 4.2 shows the correlation coefficient between workers' remittance and saving is 0.662. There is positive correlated and significant between workers' remittance and saving.

Table 4.2 shows the correlation coefficient between workers' remittance and investment is -0.200. There is negative correlated and insignificant between workers' remittance and investment.

Simple Regression Analysis between Worker's remittance and Macroeconomic variables

Table 4.3 Regression Coefficient

Dependent variables	Independent variable	Coefficient	Constant	T-stat	P-value
GDP	Rem	0.015	12.410	0.823	0.418
Consumption	Rem	0.040	11.142	2.501	0.019
Saving	Rem	0.200	14.066	4.505	0.000
Investment	Rem	-0.063	20.063	1.040	0.308

Source: Appendix II

Table 4.3 shows that constant $a = 12.410$ which is positive. This also implies the autonomous increment in workers' remittance to GDP was by 12.410 in every year. Since the coefficient of workers' remittance is positive and equal to $b = 0.015$. It also tells that the increase in workers' remittance by one unit at a time period t implies 0.015 increases in the nominal GDP for the same time period. This coefficient's t -statistic is 0.823 and p -value is 0.418. So, t -statistic is significant and p -value is not significant at 5% significance level. This implies that there is insignificant role of workers' remittances in the GDP

Table 4.3 shows that consumption is the positive function of workers' remittance. The constant $a = 11.142$ which is positive. This also implies the autonomous increment in workers' remittance to consumption was by 11.142 in every year. Since the coefficient of workers' remittance is positive and equal to $b=0.040$. It also tells us that the increase in workers' remittance by one unit at a time period t implies 0.040 increases in the consumption for the same time period t . This coefficient's t-statistic is 2.501 and p-value is 0.019. So, t-statistic is significant and p-value is also significant at 5% significance level. This implies that there is significant role of workers' remittances in the consumption. It concluded that there is significant role of workers' remittances in the consumption of Nepal.

The table 4.3 shows that there is the positive relationship between the workers' remittance and saving at the same time period. It shows that constant $a = 14.066$ which is positive. This also implies the autonomous increment in workers' remittance to saving was by 14.066 in every year. Since the coefficient of workers' remittance is positive and equal to $b= 0.200$ It also tells us that the increase in workers' remittance by one unit at a time period t implies 0.200 increase in the saving for the same time period t . This coefficient's t-statistic is 4.505 and p-value is 0.000. So, t-statistic is significant and p-value is also significant at 5% significance level. This implies that there is significant role of workers' remittances in the saving of Nepal

Table 4.3 shows that investment is the negative function of workers' remittance. It shows that constant $a = 20.063$ which is positive. This also implies the autonomous increment in workers' remittance to investment was by 20.063 in every year. Since the coefficient of workers' remittance is positive and equal to $b= -0.063$. It also tells us that the increase in workers' remittance by one unit at a time period t implies 0.063 decreases in the investment for the same time period t . This coefficient's t-statistic is 1.040 and p-value is 0.308. So, t-statistic is significant and p-value is insignificant at 5% significance level. This implies that there is insignificant role of workers' remittances on investment.

4.3 Major Findings

In this study, all the research data are secondary with the help of the secondary with the help of the secondary data; the study calculated the value relationship between workers' remittance and macroeconomic variables.

- i. The workers' remittance inflow of Nepal is highest in the year 2018/19 with Rs. 879.27.30 billion and lowest in the year 1990/91 with Rs.2.13 billion. The average of remittance is 29.20. The results also indicate that total workers' remittance inflow of our country is in increasing trend from 1990/91 to 2018/19.
- ii. The average GDP of Nepal has been revealed to be 12.84. The GDP is highest in the year 2018/19 with Rs. 3464.30 billion and lowest in the year 1990/91 with Rs.120.37billion, it shows that the GDP of Nepal is in increasing trend from 1990/91 to 2018/19. The other macro-economic indicator like saving, investment and consumption also shows increasing trends.
- iii. The average of macro-economic indicator like consumption, saving and investment is 12.32, 19.90 and 18.24 respectively. As the highest and lowest value of consumption is Rs 2755.00 billion and Rs 108.86 billion, as like saving have Rs 1814.5 billion and Rs. 13.88 billion, investment have Rs. 2157.2 billion and Rs. 25.07 billion respectively.
- iv. The correlation analysis of GDP, consumption, saving and investment with workers' remittances is 0.159, 0.440, 0.662 and -0.200 respectively. This shows that there is positive correlation and significance between workers' remittance with consumption and saving and remittance have positive correlation with GDP but p-value is not significant at 5% significance level. There is negative correlation between remittance and investment.
- v. The regression coefficient as positive for workers 'remittances inflow, consumption, saving and GDP. It implies that regression coefficient for workers' remittance inflow with consumption and saving is positive and significant. Thus, the result indicates that higher the total workers' remittance inflow, higher would be the consumption and saving. The p value of consumption and saving is 0.019

and 0.000 which is significant at 5% level of significance. It shows that consumption and saving are significant.

- vi. The regression coefficient is negative with investment and Unexpected signs. This is -0.063. The value of P is 0.308 of investment which is insignificant at 5% level of significance. So, it indicates that investment is insignificant and negative relationship between remittance and investment. The p value of GDP is 0.418 which is also insignificant at 5% level of significance.
- vii. The workers' remittance income of Nepal has been increasing rapidly during two decades especially from 2000/01. The increasing trend of workers' remittance affects the balance of payment (BOP) of country.
- viii. The research also showed that the rate of growth of GDP is very low whereas rate of growth of workers' remittance is very high which implies that huge amount of workers' remittances is used in household consumption.

CHAPTER V

CONCLUSION

This is the final chapter that involves discussion, conclusions and implications of the research work. The facts and findings from secondary data analysis are presented in this chapter. The first part deals the discussion of the research; second part deals the conclusion of the research and third with the implication of the research.

5.1 Discussion

Recently remittance has risen in a significant way in developing countries, but scholars from different countries differently characterized its impact on economic growth. Depending on the debates of workers' remittance, Siddique (2010) found that growth in remittances does lead to economic growth in Bangladesh. In India, there seems to be no causal relationship between growth in remittances and economic growth; but in Sri Lanka, a two-way directional causality is found; namely economic growth influences growth in remittances and vice-versa. But the research study result shows the positive relationship between workers remittance consumption and saving but negative relation between GDP and investment. Azam and Khan (2011), Yaseen (2012) et al. also argued to show the significant relationship between remittance and economic growth.

Workers' Remittance has emerged as backbone of Nepal's economy in the last two decades. The study also found to show that the GDP of Nepal is highly depending upon workers' remittance but growth rate of GDP is decreasing in comparison of growth rate of remittance, as Shera and Meyer (2013) have analyzed that there are significant relationships between remittances and consumption and saving in the 21 developing countries.

The popular view regarding remittance has been largely gone into increased consumption and investment behavior. The research study found that higher the Nepalese workers' remittance higher is the consumption and saving patterns which is showing positive relation and so do Javaid (2017), that remittance is positively related with consumption and saving, as Uprety (2017) shows that there is no evidence that

remittances are used for investment; however, they had positive and statistical significant causality to consumption.

The workers' remittance can lead to domestic currency appreciation i.e. remittance generally comes in foreign currency that is valued higher than local currencies in Nepal. Remittance constitutes important sources of foreign exchange for the poor countries. Which have substantial development impact as can be understood from micro and macro point of view? This study found and also agreed to have relationship between workers' remittance and macroeconomic variables.

5.2 Conclusions

This research found that flow of workers' remittance income is increasing every year. There is positive relationship with the consumption and saving and GDP and negative relationship between investment which helps to reduce poverty, increase living standard, increase investment, consumption pattern in house hold etc. The contribution of workers' remittance income is one third of GDP of country which is very high. Nepal is fourth largest remittance income received country in the world as compare of GDP. Which showed that Nepalese economy was leads to dependency to workers' remittances.

The regression coefficient is positive for total workers' remittances inflow, GDP, saving and consumption. The regression coefficient for total remittance inflow is positive and significant. This shows that there is positive correlated and significance between workers' remittance with GDP, saving and consumption. Thus, the result indicates that higher the total workers' remittances inflow, higher would be the GDP, consumption and investment. The regression coefficient is negative for total workers' remittances inflow with investment. There is negative correlated and insignificant between remittance and investment. It implies that remittance are extremely use in consumption sector.

Hence, If national saving to be insufficient to support the level of investment necessary to sustain a high level of long-run economic growth without excessive dependence foreign capital, it causes risk to growth and financial stability. The remittances can produce long term impact only if it is channeled into productive investment. The correlation ship between remittance and investment is significant.

The data also showed that if there is any disturbance in the inflow of workers' remittances, then the Nepalese economy will be imbalance.

5.3 Implications

Nearly four millions young individual have left Nepal for foreign employment primarily for the reason that the employment opportunity in the country are virtually none existent. The country is exporting unemployment to the other countries rather than bringing sound policy action to retain this workforce within the country. The research may be useful for them who are concerned directly or indirectly with effect of remittances income analysis of the country. On the basis of above analysis and findings of the study, following implication can be drawn out.

- Nepal needs to further formulate policies that a) send more workers' remittances through official rather than unofficial channel. b) Increase the levels of workers' remittance by encouraging migrants to hold their saving in financial assets in the country rather than holding them abroad and c) encourage migrants to become investor in productive assets in the country.
- More than 50 % of the remittances are entering into the country through illegal channels which are not recorded in the remittances data. Also the remittances from India are not included in the workers remittance of current account of the country. So the government should make the policy to stop illegal channels for the workers' remittance inflow.
- The government should develop appropriate policies and strategies to train and educate remitters so that remittance received can be effectively and efficiently utilized in investment decision which will positively affect in Nepalese economy.
- The government and policymaker must make measures that could lower the cost of remittance transaction for poor households and to strengthen financial infrastructure supporting remittances which results in reducing poverty, smoothing consumption, providing working capital for small scale enterprises and increasing household expenditure in areas considered to have the high social values.

- The future researcher can study by taking multivariable like business planning, changes in currency values, government policies, interest rate change affecting the GDP of the country and can take longer period of data so that more reliable results can be obtained. More advanced technologies can be applied so that the results obtained from the research can be generalized in other setting.

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APPENDIX - I

Fiscal Year	Workers' Rem(billions)	Growth Rate of remittance(%)	GDP(billions)	Growth Rate of GDP(%)	Consumption(billions)	Growth Rate of Consumption(%)	Saving(billions)	Growth Rate of Saving(%)	Investment(billions)	Growth Rate of Investment(%)
1990/91	2.13	-	120.37	-	108.86	-	13.88	-	25.07	-
1991/92	2.32	8.92	149.50	24.20	133.28	22.43	19.41	39.84	31.62	26.13
1992/93	2.99	28.88	171.50	14.72	148.30	11.27	26.98	39.00	39.65	25.40
1993/94	3.47	16.05	199.30	16.21	170.05	14.67	33.58	24.46	44.64	12.59
1994/95	5.06	45.82	219.20	9.98	186.71	9.80	38.10	13.46	55.23	23.72
1995/96	4.28	-15.42	248.90	13.55	214.49	14.88	38.89	2.07	68.02	23.16
1996/97	5.60	30.84	280.50	12.70	241.35	12.52	44.83	15.27	71.08	4.50
1997/98	6.99	24.82	300.80	7.24	259.41	7.48	48.62	8.45	74.73	5.14
1998/99	10.32	47.64	342.01	13.70	295.47	13.90	58.65	20.63	70.06	-6.25
1999/00	12.66	22.67	379.50	10.96	321.91	8.95	70.70	20.55	92.27	31.70
2000/01	47.22	272.99	441.52	16.34	390.01	21.15	118.79	68.02	98.65	6.91
2001/02	47.54	0.68	459.44	4.06	415.84	6.62	111.18	-6.41	93.02	-5.71
2002/03	54.20	14.01	492.20	7.13	450.09	8.24	116.99	5.23	105.38	13.29
2003/04	58.60	8.12	536.80	9.06	473.69	5.24	146.27	25.03	131.67	24.95
2004/05	65.50	11.77	589.40	9.80	521.30	10.05	167.45	14.48	155.91	18.41
2005/06	97.70	49.16	654.10	10.98	595.37	14.21	189.86	13.38	175.63	12.65
2006/07	100.10	2.46	727.28	11.19	656.37	10.25	207.88	9.49	208.78	18.87
2007/08	142.70	42.56	815.70	12.16	735.47	12.05	270.95	30.34	247.27	18.44
2008/09	209.70	46.95	988.30	21.16	895.04	21.70	354.47	30.82	313.03	26.59
2009/10	231.73	10.51	1192.80	20.69	1056.20	18.01	428.35	20.84	456.49	45.83
2010/11	253.55	9.42	1366.90	14.60	1176.00	11.34	506.33	18.20	519.27	13.75
2011/12	359.55	41.81	1527.30	11.73	1395.50	18.66	602.87	19.07	526.89	1.47
2012/13	434.58	20.87	1695.00	10.98	1516.10	8.64	689.87	14.43	632.60	20.06
2013/14	543.29	25.01	1965.00	15.93	1730.30	14.13	898.50	30.24	808.80	27.85
2014/15	617.28	13.62	2130.00	8.40	1934.00	11.77	940.30	4.65	832.00	2.87
2015/16	665.06	7.74	2253.20	5.78	2161.50	11.76	903.80	-3.88	763.40	-8.25
2016/17	695.45	4.57	2674.50	18.70	2315.30	7.12	1242.00	37.42	1252.10	64.02
2017/18	755.10	8.58	3031.00	13.33	2491.10	7.59	1427.20	14.91	1672.40	33.57
2018/19	879.27	16.44	3464.30	14.30	2755.00	10.59	1814.50	27.14	2157.20	28.99

Appendix II
Descriptive Statistics

Statistics/Variables	Remittance	GDP	Consumption	Saving	Investment	
Mean	29.20	12.84	12.32	19.90	18.24	
Standard deviation	49.93	5.19	5.10	15.42	15.90	
Median	16.25	12.43	11.55	18.64	18.66	
Minimum	-15.42	4.06	5.24	-3.88	-5.71	
Maximum	272.99	24.20	22.43	39.84	45.83	
Correlations						
		Rem	GDP	C	S	I
Remittance	Correlation	1		.		
	Sig. (2-tailed)					
	N	28				
GDP	Correlation	0.159	1			
	Sig. (2-tailed)	0.418				
	N	28	28			
Consumption	Correlation	.440*	.681**	1		
	Sig. (2-tailed)	0.019	0.000			
	N	28	28	28		
Saving	Correlation	.662**	.691**	.481**	1	
	Sig. (2-tailed)	0.000	0.000	0.010		
	N	28	28	28	28	
Investment	Correlation	-0.200	.575**	-0.066	.379*	1
	Sig. (2-tailed)	0.308	0.001	0.739	0.047	
	N	28	28	28	28	28
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Workers' Remittance and GDP

Summary output

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.120	1	15.120	0.678	.418 ^b
	Residual	579.725	26	22.297		
	Total	594.846	27			
a. Dependent Variable: GDP						
b. Predictors: (Constant), Remittance						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.410	1.035		11.987	0.000
	Remittance	0.015	0.018	0.159	0.823	0.418
a. Dependent Variable: GDP						

Workers' Remittance and Consumption

Summary Output

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	112.636	1	112.636	6.256	.019 ^b
	Residual	468.095	26	18.004		
	Total	580.731	27			
a. Dependent Variable: Consumption						
b. Predictors: (Constant), Remittance						

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.142	0.930		11.977	0.000
	Remittance	0.040	0.016	0.440	2.501	0.019

a. Dependent Variable: Consumption

Workers' Remittance and Saving

Summary Output

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2751.806	1	2751.806	20.293	.000^b
	Residual	3525.668	26	135.603		
	Total	6277.474	27			

a. Dependent Variable: Saving
b. Predictors: (Constant), Remittance

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.066	2.553		5.509	0.000
	Remittance	0.200	0.044	0.662	4.505	0.000

a. Dependent Variable: Saving

Workers Remittance and Investment

Summary Output

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	269.771	1	269.771	1.081	.308^b
	Residual	6486.772	26	249.491		
	Total	6756.543	27			
a. Dependent Variable: Investment						
b. Predictors: (Constant), Remittance						

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.063	3.463		5.793	0.000
	Remittance	-0.063	0.060	-0.200	1.040	0.308
a. Dependent Variable: Investment						