

Impact of Personal Remittance on the Gross Domestic Product of Nepal

Sita Kumari Khatiwada

Lecturer

Department of Economics

Mahendra Multiple Campus, Dharan, Tribhuvan, University, Nepal

sitakhatiwada111@gmail.com

Abstract

The specific objective of this investigation was to explain the impact of personal remittance on the Gross Domestic Product of Nepal. This research used secondary data. Using data were received from different websites like websites of the World Bank, the Department of foreign employment, and so on. Collected data were analyzed and interpreted through Ms. Word, Ms. Excel, and IBM SPSS Statistics 26 version including statistical tools like descriptive and inferential. The study found that personal remittances received, and percent of female migrants had a moderate positive correlation but, a weak correlation coefficient with personal remittance received and the percentage of male migrants. Results cleared that there has no significant relationship between the no. of males and personal remittance received but there has a significant relationship between the no. of females and personal remittance received. As remittance income is increasing with the increase in the migrant population towards foreign. At the current time, Nepal is based on remittance income due to the lack of other sectors. Hence, the Nepalese government should pay attention to the proper utilization of remittance in productive sectors.

Keywords: remittance, migrants, economy, inflow, employment, male, female

Introduction

Background of the Study

Since a few years ago the concept of globalization and migration continuously goes on increasing and brings a huge change in the world. International migration means the shift in residential places of people across the border of the country i.e., caused by either pull or push factors (Acharya & Leon-Gonzalez, 2013). Such a type of movement is guided by attractive factors like better employment opportunities, a high level of income, good education, and so on. At present time remittance is the main source of foreign currency for developing countries like Nepal. It is a large flow of foreign currencies than Foreign Direct Investment. So, remittance is important to the economy in both micro as well as macro ways. It plays an important role to enhance the livelihood of poor and middle-income groups of people by

providing a strong source of income and employment. MOF of Nepal (2021), also revealed that about 250000 people yearly leave the country to get better employment and income. Hence, it is right to say, the Nepalese economy automatically changes from an agro-based economy to a remittance-based economy.

Remittance means that household income from foreign countries sends by either permanent or temporarily migrated people(Lamichhane, 2018). It is a supporting source of income and plays an important role in economic growth and economic development in developing countries like Nepal. It acts as insurance against different economic problems like economic depression, natural disasters, political conflict, etc. (Yang, 2008). Ratha et al., (2015) defined the Nepalese economy recognize as a remittance-based economy because of the continuous rise in remittance inflow. But the present scenario declared that the economic reward from agriculture and other sector goes on declining day by day in Nepal.

Rationale of the Study

More than two decades ago, Nepali people started to move to overseas countries for employment. According to the Central Bank of Nepal, the number of Nepali workers getting permission for foreign increased substantially to 354660 in the last fiscal year. Thus, along with an increase in the outflow of Nepali workers, the remittance income also increases and reached about Rs. 1 trillion in mid-July of 2022. That's why the contribution of remittance to the GDP of the Nepalese economy is high and this study focused to study on the impact of personal remittance on the Gross Domestic Product in Nepal.

Statement of Problem

Nepal is a nation suffering from the problem of low income, poverty, unemployment, over-dependence on agriculture, and so on. According to an economic survey of Nepal 2077/78, about 66 percent of people are discomfort the problem of disguised unemployment, and semi-unemployment. But on the other hand, there are opportunities in the world market and a large number of Nepalese are moving toward the third world to earn money. So, the contribution of remittance to the Gross Domestic Product (GDP) is meaningful. Even though, the Nepalese economy is facing the problem of the foreign currency crisis. Here the question arises, what is the impact of personal remittance on the GDP of Nepal? Is it increasing day by day with the increase in the number of workers not? These are avarice issues of the Nepalese economy. Some main research questions are as follows:

- What is the impact of personal remittance on the GDP of Nepal?
- Is the remittance increase with an increase in the number of workers?

Objective of the study

The objectives of this study are as:

- To identify the impact of personal remittance on the Gross Domestic Product of Nepal.
- To examine the relationship between the outflow of workers and the inflow of remittance in Nepal.

Limitations of the study

This study has been based on secondary data and covers very few variables and problems. Hence, future research should be done including more variables and problems. Thus, the investigation is only limited to the analysis of the relationship between personal remittance and the GDP of Nepal.

Review of Literature

Nepali youths were recruited in the Lahore army or the Sikh ruler Ranjit Singh's army and then from 1815-16, the same army moved to the British army. Nowadays, most youths have migrated abroad due to economic and non-economic reasons (Bhatt, 2013). Due to the political upheaval in Nepal, foreign employment has become the only option for young people. As a result, according to the report of the Ministry of Finance of Nepal (2011), about 25,0000 Nepali youth forces are going abroad to search for better work with high payment. Likewise, according to IMF, (2009), remittance is the income received by Nepalis for working abroad. It is received from permanent or temporary movement. It includes cash or non-cash income and is received through legal process, electronic process i.e. informal means.

Analyzing the reality shown by all these data, most of the developing countries are dependent on remittance. Which has played an important role in economic development. When the economy goes through an economic crisis, natural disaster, or political crisis, then remittance acts as a weapon that leads the economy to the path of recovery and stability (Yang, 2008). Finally, remittance is an important financial source for labor-exporting countries.

According to World Bank, (2011), remittances were more than 25 percent of the GDP of developing countries and almost equal to FDI. In addition, it has also helped to improve the balance of payments problem, manage liquidity in the financial system, and achieve economic stability.

In rural areas of Nepal, most households are dependent on the income of at least one member who is employed abroad (Nepal's Dependence on Export Labour, 2015). Similarly, according to the report of Asian Migrant Remittances, (2015), Nepal comes after Bangladesh among the low-income countries. According to the World Bank, in 2022, remittances to GDP

in Nepal. This report has also confirmed that personal remittance has a significant contribution to GDP in Nepal.

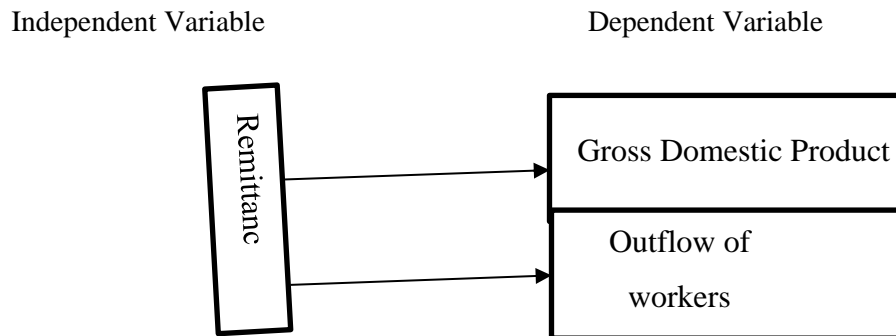
According to IMF (2009), a study shows that the contribution of remittance to GDP is maximum i.e., up to 25 percent of GDP in mid-late 1996. But a recent survey shows that the contribution of remittance to GDP is more than 20 percent (Economic Survey, 2018). That's, we cannot minimize the role of remittance in the Nepalese economy. According to data from DOFE (2013), about 500000 Nepalese workers went towards the third world for employment opportunities and remitted about \$ 4.85 billion. It shows the contribution of remittance to GDP goes on increasing in the Nepalese economy. In the same way, during the time of a few years ago, international migration and remittance played crucial roles in the economic and social development of the country. In 2020/21 Nepal received about Rs. 961.05 billion in remittances from different countries and the share of remittances in GDP is 22.5 percent (NPC, 2020/21). That's why remittance is a major part of the national budget. According to the report of the economic survey 2020/21, the annual per capita income of Nepal reached \$1381 in 2021, which is more than 11 percent of than previous year. With the increase in the outflow of workers from Nepal to other countries, the income of the Nepalese economy increases in the form of remittance. S, the contribution of remittance on GDP also increases day by day. From the description of the above literature, it has been clear that remittance plays an effective role in the Nepalese economy to fulfill various desires of an economy. And, there are various studies investigated the role of remittance on socioeconomic progress (Aryal, 2022), economic growth (Dahal, 2014), and remittance and its impact on the Nepalese economy (Chhetri, KC & Dhakal, 2020) so on. But above these studies have not treated the 'impact of remittance on the GDP of Nepal'. Thus, I investigate this topic and this research tries to analyze the main issue which is affected by the GDP

Research Gap

It is also clear from the above review of literature and data that remittance is an important aspect of the Gross Domestic Product in Nepal. Remittance has played an important role in the country's economic development and poverty alleviation. Many scholars have also studied the impact of remittances in different areas at different times. Aryal (2022), studied The Role of Remittance on Socio-Economic Progress in Nepal. Similarly, Dahal (2014), studied the impact of remittance on economic growth in Nepal. During the same study, Katuwal (2020) studied Remittance and its impact on the Nepalese Economy. But only a few have studied the Impact of Personal Remittance on the Gross Domestic Product of Nepal. That's why I studied the Impact of Personal Remittance on the Gross Domestic Product of Nepal.

Conceptual Framework

The conceptual framework consists of remittance as an independent variable and Gross Domestic Product and outflow of workers are dependent variables. It shows when the amount of remittance goes on changing, the Gross Domestic Product and outflow of workers also go on changing.



Note. Self-creation of a researcher.

Research Hypothesis

H₁: There is a significant relationship between remittance and Gross Domestic Product.

H₂: There is a significant relationship between remittance and the outflow of workers.

Methods and Materials

The research design brings to the overall strategy for the study like a theoretical framework as a guideline for the collection and analysis of data. The main objective of this study is to the impact of personal remittance on the GDP of Nepal. This study has been based on secondary data. These data are received from the website of different national and international institutions like economic surveys, the Department of Foreign Employment, the Ministry of Labor, the World Bank, and the Asian Development Bank. The received data and materials for this study were managed, well-ordered analyzed, and interpreted by Ms word, Ms. Excel, and IVF SPSS Version 26 according to the necessity to fulfill the declared objectives. It also tests by descriptive and inferential tools.

Econometrics model

The above literature review argued that personal remittance received (Percent of GDP) is affected by percent of male and female migrants to foreign countries. Therefore, personal remittance received (Percent of GDP) is the dependent variable, and male and female migrants are independent variables. Here, this research tries to show the relationship between dependent and independent variables. Similarly, here dependent variable is continuous, so the econometric model might be:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon \dots \dots \dots (1)$$

Where,

Y = Dependent variable (Personal remittance received)

β_0 = Intercept

β_1 = Coefficient of male migrants

β_2 = Coefficient of female migrants

X_1 = Percent of male migrants

X_2 = Percent of female migrants

ϵ = Error term

To use multiple linear regression in research following assumptions should be satisfied.

- Linearity: There should be a linear relationship between the dependent and independent variables.
- Normality: The residuals... Are normally distributed.
- No multicollinearity: The independent variables are not highly correlated with each other.
- Homoscedasticity: The variable of error terms is homogeneous.
- No autocorrelation: There is no autocorrelation between error terms.

Results and Discussion

Descriptive statistics are defined as an instructional number that makes clear a given data and it can be representative of either the entire population or a sample of a population. This study, indicates the mean, standard deviation, minimum, maximum, etc (*Descriptive Statistics*, n.d.). The main purpose of this purpose is to define some factors that influence directly remittance. Hence, I analyzed the total number of males and females, and their percentages went to foreign countries in different years. The given table below shows this fact.

Table 1

Frequency of Labor Permits Issued

Year	Male	Female	Total of male and female	% of Male	% of Female
2009	211371	8594	219965	96.09	3.91
2010	284038	10056	294094	96.58	3.42
2011	344300	10416	354716	97.06	2.94
2012	361707	22985	384692	94.03	5.97
2013	423122	27767	450889	93.84	6.16

Year	Male	Female	Total of male and female	% of Male	% of Female
2014	490517	29121	519638	94.40	5.60
2015	477690	21412	499102	95.71	4.29
2016	38226	18467	56693	67.43	32.57
2017	362766	20105	382871	94.75	5.25
2018	331679	22419	354098	93.67	6.33
2019	215630	20578	236208	91.29	8.71
2020	157137	15129	172266	91.22	8.78
2021	55879	5548	61427	90.97	9.03
Total	3754062	232597	3986659		

Note. Nepal Labor Migration Report, 2021.

Table 1 depicts that out of 219965 total migrants, males were 211372 and females were 8594 in 2009. There is a continuous goes in increasing of male and female migrants to foreign countries to earn money from 2009 to 2014. Similarly, from 2015 no. of both male and female migrants goes on declining. But this table declared that the no. of migrants to foreign countries to search for employment opportunities is meaningful. A study was done (Aryal, 2022) on the role of remittance on socio-economic progress in Nepalese societies and found that Nepal is a labor-sending country.

Table 2

Average of different Dependent and Independent Variables

Variables	Minimum	Maximum	Mean	Std. Deviation
Personal Remittances Received (percent of GDP)	20	28	24.12	2.29
No of Male	38226	490517	309442	132372
No of female	8594	29121	19177.2	6598.19

Note. Nepal Labor Migration Report, 2021.

Table 2 appearance that the mean scores of the compound variables in this research lie between 24.12 to 309942, which shows that the existing variables have no average value. This situation indicates that there is no sure contribution of remittance to GDP increases with an increase in foreign migrants. The standard deviation of male migrants, female migrants, and personal remittance on GDP were 132372, 6598.19, and 2.29 respectively. But Dahal, (2014) study found that there is a positive relationship between remittance and the financial development of Nepal. Similarly, Neupane, (2011) investigated that it helped to raise the GDP in Nepal. Gaudel, (2006) declared that remittance income helps to raise the GDP in Nepal.

Table 3

Correlation Analysis among Dependent and Independent Variables

Correlations	Personal Remittances Received (percent of GDP)	Percent of Male	Percent of Female
Personal Remittances Received (percent of GDP)	1		
Percent of Male	0.14 0.66	1	
Percent of Female	.609* 0.03	.611* 0.03	1
	0	0	0

* Correlation is significant at the 0.05 level (2-tailed).

Note. Nepal Labor Migration Report, 2021.

Table 3 displays the relationship between the variables and expresses whether each variable has a strong correlation with another variable or not. This is clear that personal remittance received, and percent of female migrants had a moderate positive correlation with a correlation coefficient value of 0.609. But, weak correlation coefficient with personal remittance received and the percent of male migrants with a correlation coefficient value of 0.14. The results of this study are similar to previous studies done by Katwal (2020).

Table 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.679 ^a	.46	.35	1.79	1.100

a. Predictors: (Constant), No of female, No of Male

b. Dependent Variable: Personal Remittances Received (percent of GDP)

Note. Nepal Labor Migration Report, 2021.

Table 4 shows the outline of the regression analysis. Here the dependent variable is personal remittance received (percent of GDP). The value of R-Square is 0.46 indicating that the existing variables are defined by 46 percent of the change in personal remittance received, whereas the remaining 54 percent was considered for other variables. Similarly, the Durbin-Watson value of 1.100 is less than 2 means there is less autocorrelation.

Table 5

Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.69	2	13.84	4.28	.04 ^b
	Residual	32.35	10	3.24		
	Total	60.04	12			

a. Dependent Variable: Personal Remittances Received (percent of GDP)

b. Predictors: (Constant), No of female, No of Male

Note. Nepal Labor Migration Report, 2021.

Table 5 expresses the analysis of variance (ANOVA) of regression analysis with contemplate dependent variable personal remittance received. The significant value is 0.04 which is less than 0.05. This table defines that the independent variables statistically significantly predict, the dependent variable, $F(2, 10) = 4.28, p < 0.05$.

Table 6

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	21.06	1.410		14.93	.000		
No of Male	-5.85E-6	.000	-.38	-1.29	.23	.63	1.59

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
No of female	.000	.000	.84	2.87	.02	.63	1.59

a. Dependent Variable: Personal Remittances Received (percent of GDP)

$$Y = 21.06 - 5.85X_1 + 0.0X_2$$

Note. Nepal Labor Migration Report, 2021.

Table 6 shows a crucial relationship between dependent and independent variables. There was no significant relationship between no. of females and personal remittance received but there was a significant relationship between no. of males and personal remittance received.

The given table 6 revealed that no. of males had a negative effect with a beta value of -5.85 and, a weak effect had females with a beta value of 0.00. It defined that zero percent variation in personal remittance received is because of the no. of female migrants, but negative (-5.85 units) influence with no. of male migrants. Here, there is no statistically significant relationship between the no. of males and personal remittance received because the expected value (P-value) of 0.23 was more than 0.05, but there is a significant relationship between the no. of females and personal remittance received because the expected value (P-value) 0.02 was less than 0.05 that is supported H₂ but not supported H₁. The coefficient estimate of the constant term of the regression was 21.06. It showed what the value of the dependent variable was if all the independent variables became zero. It indicated that personal remittance received changed by 21.06 units given all the independent variables were zero. The estimate of VIF is 1.59. indicating there was no multi-collinearity. The study by Shakya & Gonpu^b (2021) found that remittance does not significantly impact economic growth.

Conclusion and Implication

Remittance is a powerful source to minimize the problem of unemployment, and poverty, raise GDP, improve the balance of payments, and so on. This study focused on no. of male and female migrants towards foreign countries to show personal remittance receipt (percent of GDP) and the main aim of this study is the impact of personal remittance on the gross domestic product of Nepal. For this objective, secondary data were used, and received data were analyzed by descriptive as well as inferential statistics like mean, Std. deviation, minimum, maximum, Correlations, and regression. The results of this study declared that there is a moderate positive correlation between remittance received and the percentage of female migrants but a weak positive correlation between remittance received and percent of male migrants. In this study, regression shows that there is no significant relationship between the

no. of males and personal remittance received but there is a significant relationship between no. of females and personal remittance received. It also declared that there is no multicollinearity and auto-correlation.

In this research, time-series data were used and received from secondary sources. The no. of variables is very few. So, this study could not analyze different aspects. Therefore, in the coming future researcher should use the data with more variables and investigate the impact of remittance in various sectors. This study will help to understand the no. of male and female migrants are major factors that influence remittances or not. Finally, it is concluded that only an increase in the inflow of remittance in the country is not good, but proper utilization of remittance in productive sectors is a special fact.

References

- Acharya, C. P., & Leon-Gonzalez, R. (2013). The Impact of Remittance on Poverty and Inequality: A Micro-Simulation Study for Nepal. *Asian Journal of Empirical Research*, 3(9), 1061–1080.
- Aryal, G. R. (2022). The Role of Remittance on Socio-Economic Progress in Nepal. *Journal of Population and Development*, 3(1), 34-41.
- Bhatta, G. R. (2013). Remittance and trade deficit nexus in Nepal: A VECM approach. *NRB Working Paper No. 14*.
- Chhetri, R. K., KC, P., & Dhakal, S. C. (2020). Remittance and its impact on the Nepalese economy. *Acta Scientifica Agriculture*.
- Dahal, P. (2014). The impact of remittances on economic growth in Nepal: An analysis of a significant basis of development. *Asia Pacific Journal of Public Administration*, 36(4), 261-282.
- Descriptive Statistics: *Definition, Overview, Types, Example*. (n.d.). Investopedia. Retrieved November 12, 2022. https://www.investopedia.com/terms/d/descriptive_statistics.asp
- DoFE (Department of Foreign Employment). (2013). Report of the fiscal year 2050/051 to 2067/068. Department of Foreign Employment.
- Gaudel, Y. S. (2006). Remittance income in Nepal: Need for economic development. *Journal of Nepalese Business Studies*, 3(1), 9-17.
- GoN/MoLE. (2014). Labor migration for employment: a status report for employment. Ministry of Labor and Employment.
- GoN/MoF. (2018). Economic survey. Ministry of Finance.

- IMF (2009). *Balance of Payments and International Investment Position Manual* (6th ed.). Washington, D.C.: International Monetary Fund.
- Katuwal, R. (2020). Remittance and its impact on the Nepalese economy. *Acts Scientific Agriculture*, 4 (3), 1-5. Doi: 10.31080/ASAG.2020.04.0818
- Lamichhane, S. (2018). *A Study of Labor Migration and Remittance Economy of Nepal; a System Dynamics Approach* (Master's thesis, The University of Bergen).
- Ministry of Finance (MOF). (2017). *Economic survey 2016/17*, Government of Nepal, Singh Durbar, Kathmandu, Nepal.
- Ministry of Finance (MOF). (2021). *Economic survey 2020/2021*, Government of Nepal, Singh Durbar, Kathmandu, Nepal.
- National Planning Commission (NPC). (2019). *Fifteenth development plan, 2019/20-2023/24*. Government of Nepal, Kathmandu, Nepal.
- Neupane, N. K. (2011). *An analysis impact of remittance on the Nepalese economy*. M. Phil. Dissertation, Central Department of Economics, Kirtipur, T.U., Nepal.
- Ratha, D., De, S., Dervisevic, E., Plaza, S., Schuettler, K., Shaw, W., ... & Yousefi, S. R. (2015). Migration and remittances: Recent developments and outlook. Special topic: Financing for development. *Migration and development brief*, 24, 334934-1288990760745.
- Shakya, P., & Gonpu^b, G. P. (2021). Impact of Remittances on Economic Growth in Nepal. *Nepal Public Policy Review*, 31-47.
- World Bank. (2010). *Migration and remittances factbook 2011*. The World Bank.
- Yang, D. (2008). International migration, remittance, and household investment. *The economic journal*, 1 (5), 591-630.