Government Expenditure and Economic Growth in Nepal: A Disaggregated Analysis

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Recommendation

Certification

Declaration of Authenticity

I, hereby, declare that this GRP is my own original work and that it has fully and specially acknowledged wherever adopted from other sources. I also understand that if at any time it is shown that I have significantly misrepresented material presented to SOMTU, any credits awarded to me on the basis of that material may be revoked.

Signature:

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Date:

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List of Abbreviations

ANOVA	Analysis of Variance
B	Borrowings
BFI	Bank and Financial Intuitions
BOP	Balance of Payments
CE	Capital Expenditure
CBS	Central Bureau of Statistics
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNP	Gross Nation Product
H	Hypothesis
M2	Broad Money Supply
MFC	Masters of Finance and Control
MoFA	Ministry of Foreign Affairs
NDA	Net Domestic Assets
NFA	Net Foreign Assets
NLSS	Nepal Living Standard Survey
NRB	Nepal Rastra Bank
PSC	Private Sector Credit
PVTY	Poverty
Rem	Remittance
RE	Recurrent Expenditure
ROA	Return on Assets
TE	Total Expenditure
SOMTU	School of Management Tribhuvan University
UNe	Unemployment
US	United State
DW	Durbin Watson

Executive Summary

Government expenditure is the outlays incurred by the government entities to meet the collective demands for economic and social welfare of the citizens of the country. Government spends money towards the supply of goods and services that are not provided by the private sector but are important for the nation's welfare.

The purpose of this study was to identify the government expenditure and economic growth of Nepal. The secondary data were taken from different sources for the study.

The factors that were identified as the explanatory variable were recurrent expenditure, capital expenditure, total expenditure and borrowings. These all variables were examined and compared with dependent variables of GDP as the indicator of economic growth of Nepal.

The trend of GDP shows that highest growth rate achieve in the fiscal year 2008 and lowest growth rate in the fiscal year 2018. Similarly, the recurrent expenditure has highest growth rate achieve in the fiscal year 2017 and lowest growth rate in the fiscal year 2019.

Considering all the variables, i.e. capital expenditure, capital expenditure, total expenditure and borrowings have the significance impact on gross domestic product i.e. economic growth of Nepal. Therefore, these explanatory variables play an important role in analyzing gross domestic product i.e. economic growth of Nepal. Similarly, considering all the variables, i.e. recurrent expenditure, capital expenditure, total expenditure and borrowings have the significance positive relationship on group default i.e. gross domestic product i.e. economic growth of Nepal.

Finally, all explanatory variables i.e. recurrent expenditure, capital expenditure total expenditure and borrowings have significant impact with the gross domestic product i.e. economic growth of Nepal. Therefore, they play an important role in the gross domestic product i.e. economic growth of Nepal.

CHAPTER I

INTRODUCTION

1.1 Background of the Study

The citizen's financial and social well-being is important for the growth and such activities is measured by the total government outlay which is composed of all governmental expenditure.

The government spends money on the delivery of products and services that are crucial for the wellbeing of the country but are not offered by the private sector. Governments also support emerging industries or sectors like agriculture and transportation that can't grow their businesses through private sector investment. The nation's defense, infrastructure, health, and welfare are all supported by government spending.

The area of economics known as macroeconomics focuses on understanding how an economy functions as a whole. This entails taking into account elements like inflation, poverty reduction, GDP, and unemployment. These variables and models are used by the government to construct its own economic plans. It focuses on how the economy functions as a whole and examines the economy's big-picture, entire impression. The government develops its monetary and fiscal policies through Federal Reserve to control the economy.

Some study examined link between economic development and public expenditure variable in Saudi Arabia and found that there is important factor which influence on the performance of the economy such as size of government. Abdullah (2000) found that to make economic growth the government should primarily focused on infrastructure investment, social and economic activities and should deregulate the private sectors which provides long term sustainability.

The money that the government distributes on various sectors with main aim to build peaceful environment and consistency in the nation is referred as a government expenditure. Deducting the disparities region wise, social overheads development, infrastructure development, development in education, growth in capital goods and promoting various agenda in developing economics are the major function of government expenditure, Lekhi (2008).

For decades, economists and other concerned professionals have been concerned about Government spending and its effect on economic development and expansion. In general, those who oppose economic stimulus measures think that the economy should stabilize on its own through market forces. Believers of stimulus measures counter that government intervention can lessen individuals' needless suffering as well as prevent unnecessary business loss and fall of industry (Nuruden & Usman, 2010).

Development, in general, is understood as a stage of significant change in any system-social, economic, political on behalf of people's well-being. Acharya (2012) defines economic growth as a dynamic process which must be backed by proactive bunches of strategies of investment and technological innovation in the different sectors of economy to achieve sustainable development. Hence, the study of government expenditure and economic growth have been the subjects of study for researcher and concerned.

Government spending can take many various forms, such as the acquisition and distribution of goods and services, investing, and bank transactions. State requires expenditure to maintain recurrent cost like the administrative expenses for law and order, defense; to develop infrastructure like irrigation, power, roads; to provide social safety nets like health and education; to lunch disaster settlement programs; and many other expenses for welfare consideration. The functions which are not carried out by private sectors are done by government expenditure which carries out administrative justice defense, Goode (2014).

The corporate market does not always provide for all fundamental necessities in a free market economy. Basic goods and service may not come and may not available as per need and demand for the people. The corporate market does not always provide for all fundamental necessities in a free market economy consumes a large portion of government spending. Government final consumption refers to this type of government spending.

The government final consumption for defense includes the making and care for military force, police force of nation, firefighting and emergency for society which are supported financially by the various sector of government for the protection from outer threats and citizens from the crime and disasters. Mainly the health and healthy society is another main considerable part. Other major categories of government spending

include public education and public transportation infrastructure. However, the size and area of government expenditure is to be appropriate and growth promoting unless the cases of welfare consideration.

The patterns of government spending have alarmed various classes of people in the country; even outsiders are alarmed when they see the deterioration of the country's infrastructure despite the public sector's ever-increasing budget (Holmes & Hutton 2010). Government expenses doesn't always help the economy flourish.

The multiplier effect is a tool used in Keynesian analysis to demonstrate the impact of increased government spending on economic development. Using the Granger-Sims technique, Singh and Sahni (2014) originally investigated the relationship between government spending and GDP. Because goods prices are fixed, boosting government spending raises demand, which in turn boosts output, labor supply, and real income. In other words, when the government increases spending, it really gives the economy a boost in purchasing power, which encourages businesses to boost production.

Nepalese author Mainali (2015) examined the connection between spending's of government with GDP and he discovered there is not good result of government expenditure to GDP. However the co integration and error connection model have positive significant impact; increase in recurrent expenditure and gross investment has positive impact at GDP even in short run.

Government expenditure doesn't reduce unemployment; this means they do not have any sort of significant relationship. Etale and Ayunku (2015), the study recommended the government to quadruped its expenditure on agricultural sector in the annual budget for enormous progress. The study recommended the government to quadruped its expenditure on agricultural sector in the annual budget for enormous progress to leave the budget on equal basis and should be distributed in development of agriculture sector and reduce unemployment.

We know from basic economics that no country in the world can become self-sufficient in everything and thus requires international trade, which consists of exports and imports. Researchers and economists have extensively discussed the importance of international trade for economic growth. Exports are promoted because they result in better resource allocation, the utilization of comparative advantage, economies of scale,

the earning of foreign exchange, and so on. As a result, it is argued that increased exports lead to increased economic growth.

Granger Causality test, the ADF unit root, and the Johansen Co-integration analysis resulted a sustained connection with in the Government spending's- export- economic expansion Okur (2015) which stated unidirectional causality from export to the economic improvement in short run but in long run the causality move towards bidirectional in Government spending's and Growth of economy and Unidirectional causality runs towards export- economic expansion- government expenditures.

As opposed to that, Romer, (2016), endogenous-growth literature argued that the state spending has a long term effect on economic development. Neoclassical models argued that State spending do not contribute over time economic expansion. The existence of government spending is being dependent on the requirement for its financing and tax might be viewed government's public income. One of the government revenues of the public budgets. Fund raising through debt and tax has negative impact on macro-economic variables.

Endogenous growth theory, according to some scholars, holds that increasing government spending on socioeconomic and physical infrastructures promotes economic development. Concept is that nations spending on health & education increases labour productivity and growth of domestic production. Parallel to this, spending on things like roads, irrigation systems, power plants, and telecommunications infrastructure reduces production costs, boosts private sector investment, and raises firm profitability—all of which support economic growth. The findings of Abdullah (2000) depicted that increasing government spending has a favorable impact on economic expansion.

There is positive effect of capital expenditure on economic development but some scholar disagreed with the significant impact of government spending's and economic development and they declare that this may act in opposite way by slowing down the economy, Kharel (2012). The rationale is that, government may increase tax or borrowing to meet rising expenditure so that individual's willingness to work decreases, the expenditure pattern decreases which effects on overall demand. Similarly, more profit taxes typically lead to higher output cost and deduct expenditure with decrease in profit of industries. Private sectors are pushed by internal borrowings but they

decrease investment in private sectors. For their personal benefit and for their political advantage; the leading official they make investment in ineffective and worthless sector where private sector could produce more efficiency. The studies carried out by Laudau (2016), has been demonstrated that significant government spending has a detrimental influence on economic growth. Due to the poor government planning and decision the all over national output slows down

There are two significant contradicting hypotheses in financial aspects concerning the connection between government consumption and monetary development. One the Keynesian macroeconomic hypothesis which accepted that expanded government consumption will in general high total interest and thus quick monetary development. The other, Wagnerian hypothesis which fights that expansion in public pay causes greater government consumption with less productivity (Dandan, 2011). However, J. M. Keynes insisted on the increase in government budget especially at the time of depression so that the consumption patterns increases which results on general economic expansion (Ackley, 2016). Still, the present topic is more relatable with the government's expenditure in diverse field and its impact on economic development, accordingly.

Before 1951 government spending process wasn't done formally in Nepal. Keeping the citizen unknown about the country's revenue was the main intention during Rana Regime from year 1847 to 1951. All the authorities were centralized. Officials were registered in central offices and their salary, wages etc.

After the political changes in 1951, government expenditure was presented every fiscal year (Khanal, 1988). Until 1959, the government expenditure was published in the Nepal Raj Patra- the government gazette. Starting around 1959 it was first introduced to a regulative body at whatever point one existed and afterward distributed. After the First Five-Year Plan was presented in 1955-56, the public authority consumption was partitioned into two sections: ordinary and advancement. In a discourse followed through on July 13, 1990, the pastor of money gave an administration use four significant targets: to coordinate the improvement programs by wiping out the current irregularities and by making them more sensible and useful, as well as regulating their consistency in straightforwardly helping the denied local area; to legitimize the job of the confidential area and the offices given by the public authority; to limit the rising

difficulty looked by the everyday citizens; and to begin a course of reimbursing the collected monetary liabilities of the public authority. Since the arranged consumptions for improvement were seldom meet, the 1990 spending plan brought advancement uses down to make the arrangement more sensible.

1.2 Statements of the Problem

Nepal has been implementing periodical economic plan for economic development since late 1950s. There is increasing trend in government expenditure by every year. The Gross domestic product (GDP) growth rate is substantial if it can deliver economic development. However, Barma (2010) found that Nepalese public expenditure rate is more than that of nominal growth rate of GDP. Further, he mentioned that there is increasing dependency on foreign loan to fulfill the large requirement of resources for principal repayment and loan interest and to accomplish the increasing resource gap.
"Nepal's hydro-power potential is considered as the second highest in the world but the country is troubled by the frequent power outages. The country is considered as possessing the best tourism potential in the world but this sector is also suffering from inadequate infrastructure and lack of marketing strategies. The population growth rate is high while the economic growth is slow. Domestic resource mobilization has been low" foreign aid disbursement ratio has remained unsatisfactory and the project management in the public sector has been characterized by a host of constraints and problems, mainly attributed to the lower capacity level in the public sector. Foreign aid has comprised a major portion of the capital outlays of the government though the aid has not been effective as anticipated" (Basyal, 2008). Further he says that the socio-economic development of Nepal is meek although there is increasing trend of government expenditure. Quality of financial and human capital, appropriate technology, quality of management, conductive and relevant policies adoption, stability, transparency, good governance, high level political integrity and dedication and cross border shocks and structural rigidity etc. determine the quality and sustainability of economic development (Acharya, 2012)

The economic development is every human's keen desire and thus the government expenditure is guided for it. Every individual, society and a nation as a whole wish to attain quality life and for which the objective of economic development is revolved. However, the magnitude of development differ country to country depending upon the

structure of country and the government expenditure inclined with development policies.

According to Acharya (2012), the history of economic development can be observed in four basic approaches of development those somehow are prevailing in practice independently or interchangeably or sometime mixed format. Those approaches are: linear stage of growth model that emphasizes savings, investment and foreign aid for accelerated capital accumulation to attain a desired level of development from subsistence level to mass consumption- generally practiced in 1950s and 1960s Structural change models that follow a belief of transforming the traditional economy to industrial one by changing the structure of economy which was mostly adopted in 1970s international dependence revolution approaches that follow the international power balance, global reform, and removal of structural rigidities of domestic political, institutional, and economic reform in a preview international interdependence and domination relationship which was mainly started after oil crisis in 1970s, and neo-liberal free market approaches of development that mostly adopt market fundamentalism that started in 1980s and peaked in 1990s.However, the Mexico crisis (1994), East Asia Crisis in year1997, Russian Crisis in year1998, Brazilian Crisis in year 1999, Turkish Crisis and Argentina Crisis in year 2000, (Palley, 2002) Global Financial Crisis from year 2008-2009, Euro Debt Crisis from year 2010-2011, and (Acharya, 2012), the development approach has been changing the role of private sector and government expenditure in fostering sound financial system and sustainable economic development.

Nepal has completed more than half century of its planned economic development. However, the economic indicators have not shown positive sign. The volume of government expenditure is increasing in different plan but the basic issues are almost same from first five year plan to eleventh three year interim plan- Little economic expansion, low investment, quick population increase, large foreign debt, utter poverty, and a widening wealth inequality are all present (Paudyal, 2010).

Taking all these rationale in mind this study seeks to examine the impact of government spending's on economic growth in Nepalese context. The research purposes to find the co-integration relationship of government spending's with GDP.

Number of study has been conducted in the context of Nepal regarding government expenditure and economic growth. The increasing government spending helps the economy to expand was the conclusion of Sharma and Ranjan (2008) Cooray (2009). Supporting the view, Sharma (2012) government expenses has a beneficial effect on economic expansion. But some author were not convinced they just asserted with the statement that the higher the government expenses slower the overall function and task of the economy. They denied that the government spending's results the economic development. Henrekson (2015) found significant and negative relationship between government expenditure and economic growth. Thus current research must be conduct in present scenario to deal with the following issue regarding government expenditure and macroeconomic activities of Nepal.

Being based on these statements of problems, the research questions raised for this study deals with following issues:

i) What is the trend and pattern of recurrent expenditure, capital expenditure, total expenditure and borrowings in economic growth of Nepal?
ii) What is the reaction of recurrent expenditure, capital expenditure and total expenditure on economic growth of Nepal?
iii) What is the impact of borrowing on economic growth of Nepal?

1.3 Objectives of the study

Of interest current research is the better understanding of government expenditure and effect on economic growth of Nepal. This study is done to make an empirical contribution to the discussion of Government spending and the influence it has on economic growth. The specific objectives are:

- To examine the trend and pattern of recurrent expenditure, capital expenditure, total expenditure and borrowings on economic growth of Nepal.
- To survey the impact of recurrent expenditure, capital expenditure and total expenditure on economic growth of Nepal.
- To investigate the impact of borrowings on economic growth of Nepal.

1.4 Hypotheses:

The main motive of this study is to determine the impact of government expenditure on economic growth using disaggregated analysis, based on the study of different literatures following alternative hypothesis was developed:

Hypothesis: 1

H1: There is significant influence and relationship of recurrent expenditure on economic growth of Nepal.

By taking 23 years data and using simple OLS along with 2 variables i.e. Public expenditure and economic growth Aryal (2011) have studied trend, structure and effect to check and to interpret the relationship between economic growth of country and GDP for finding the main element influencing the growth. Aryal have applied R2 technique, used adjusted R2 to select the model used t- test for significance of individual variables. On GDP the portion of recurrent expenditure is increasing, the portion of recurrent expenses is more than capital expenses on total expenditure, the portion of repetitive consumption in the all-out use is higher than the capital use on the complete use and there isn't any huge connection between the recurrent expenditure and monetary development are the significant discoveries.

Hypothesis: 2

H2: There is significant influence and relationship of capital expenditure on economic growth of Nepal.

The intention of the examination are to decide the pattern and example of public consumption and its effect on Nepal's economic progress. Sharma (2015) researched the effect of capital consumption on Nepal's financial development. It investigated the link between capital expenditure and economic growth using OLS technique and autocorrelation. The exploration's significant discoveries are that the portion of advancement use over absolute consumption is diminishing after some time, the portion of capital use over complete use is expanding after some time, and there is next to no relationship be tween's administration spending and monetary development in Nepal.

Hypothesis: 3

H3: There is significant influence and relationship of total expenditure on economic growth of Nepal.

Hypothesis: 4

H3: There is significant influence and relationship of borrowings on economic growth of Nepal.

Borrowings and economic growth in Malaysia Bin (2011) have studied relationship between them. The study's goals are to discover the relationship and impact of borrowing on the nation's economic progress. It made to use those data set from year 1970 - 2016. It used ADF and PP to ensure that data sets were motionless. Also used the Johnason co-integration technique to determine the long-term connection between the factors. According to this paper, rising total borrowing has a significant and negative relationship with economic growth. The total borrowing in economic services yields similar results. However, this study found no link between total social service borrowing and economic growth.

1.5 Significance of the Study

Economic development relies upon size, spending limit of state and ordinary checking in use following and viable utilization of capital consumption in the advancement cycle. As Government consumption is one of the significant determinants of financial development.

Finding the long term effect of government expenditure on the Nepalese macroeconomic variables is the main motive of this paper. Studies on this nature are very important for policy makers as well as those we are interested on the economy of the country. Once it has identified the effect of the nation's spending on the macroeconomic variables, it will be beneficial for the policymakers to focus on the on the basis of the extent of effect on the performance of the government budget. By doing so, one should be able to draw some indicative conclusions and make relevant expenditure recommendations, to facilitate the sound implementation of the expenditure and improve the economic condition of the country.

This study is important for policy makers in advising the government and policy makers in deciding which head of government expenditure to put more emphasis and what level of macroeconomic growth should maintained. Similarly, this study could be the foundation for the academicians for further research.

The study is intended to contribute to research on how government spending affects national economy in Nepal. It is also intended to shed light on whether Government spending and the economy are closely related for economic growth of the country. This study also covers the knowledge gap of previous studies. Government expenditure acts as vital player in the development of country. Different study has been done to ascertain the effect on economic expansion by various government spending and study come to an end stating that Economic growth is positively significant. This studied tries to test the significant relationship on Total Capital Expenditure (TCAP), Total Recurrent expenditure (TREC).

1.6 Limitation of study:

The study is based on the several assumptions as follows:

- There are many tools of economic growth such as forecasting, trend analysis, correlation and regression and so on which are used for the research to determine its effect on economic expansion but only few are considered for the study.
- Limited time period and Sample size has been taken (i.e. 2000 A.D. to 2021 A.D.) so the study could not be generalized.
- The model used in this study is limited on regression. Simple statistical tools are used in order to avoid complexity.
- The primary study is conducted within the limited geographical area. Therefore the result obtained from study cannot be generalized.
- Lack of relevant literature particularly in Nepalese perspective is another limitation of this research.

1.7 Organization of Study:

Preliminary part of the report comprises front page, recommendation letter, viva-voice sheet, acknowledgements, dedication, and declaration, table of contents, list of tables and figures and list of abbreviations. The main body part of this report consists of five

sections namely: Introduction, Literature review, Research methods, Analysis and results and discussion and implication.

Chapter one gives a background on the government expenditure, macroeconomics and government expenditure impact on macroeconomic variables. The chapter also sets out the research problem and importance of the research and limitation.

Chapter two review literature and provides the conceptual framework this serves as the research's foundation. It also comprises of theoretical framework that forms the basis of this study. Conceptual framework is followed by the review of the past literatures from the developed as well as developing countries.

The third chapter deals with research methods. This section consists of research design which explains the type and orientation of research. Furthermore it involves population and sample, data collection methods used in the study, software used for analysis, data analysis tools, data collection procedure and period, and analysis plan.

The fourth chapter deals with analysis and results. Chapter four presents data presentation and analysis which consists of presentation and analysis of data with different statistical tools. It also includes major findings of the study.

And chapter five provides the information about discussion, conclusions and implication of the study. The final segment involves the listing of references and annexes which were used in the study and construction of this report.

CHAPTER II

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

In this chapter, past literature by different authors in different countries are reviewed to develop theoretical framework consisting of independent and dependent variables

2.1 Review of Previous Studies

The literary and conceptual underpinnings of the connection between government and economic expansion are examined in this section. Spending and growth in economy of nation. Increased government spending (on infrastructure) shows the way towards increased economic growth according to Keynesian model. According to Neo classical growth model the administration financial arrangement significantly affects public result development. Notwithstanding, it has been contended that administration financial strategy (intervention) assists with further developing disappointment brought about by market inefficiencies. After applying (ARDL) method the Pakistani author Authors Mehmood and Sadiq (2010) have shown that the link between government spending and the poverty rate is not positive in Pakistan from year 1976- 2010. Using the ARDL technique, Keho (2011) examined the 1960–2006 period in Cote d'Ivoire to identify the relationship between macroeconomic conditions and government spending. Findings of the study showed that, with the exception of GDP, all variables are long-term co-integrated. All variables have a positive link with macroeconomic growth. Using the autoregressive distributed lag (ARDL) approach, Akram (2011) looked at how much money the government was spending on the economy of Pakistan. The study found public spending negatively affects unemployment and hence economic development.

Applying various econometric tools, selecting some samples of government spending and economic expansion from developed and high earnings countries from year 1970-95; Folsteand and Henerkson (2011) that when econometric concerns are addressed, more accurate (robust) findings are produced.

Khasawnehet al. (2012) found the connection between state spending and increased economy rates on Jordan during year 2004 - 2011. They employed the ARDL technique to express the connection between economic growth and monetary policy. GDP was utilized as the dependent variable, and government spending and government revenue were employed as the potential determinants as terms of trade. Positive connection among GDP and government expenditure was discovered after the study.

Regarding government expenditure on agricultural sector, there is unfavorable association across the long and short terms. (Tsadiku, 2012) found that administration spending on human resources and street development decidedly affects monetary development in both the short and long run, though farming spending makes the contrary difference, statistically one percent increment in agriculture sector by the public authority diminishes GDP by 8% in the short run.

Estache and Garsous (2012) investigated the extent to which government expenditure on infrastructure sector can contribute directly and indirectly to the creation of jobs in developing economics.19 Transition economies using the panel autoregressive distributed lag (ARDL) approach effect of export on economic growth has been determined by the research. Exports were shown to have a favorable effect on economic growth, and economic openness also had a good long-term effect.

The study carried out by the authors Mohammadi and Maleki (2012) have revealed that government spending on health has a statistically adverse result on economic development, whereas government expenditure on education, defense & defense have a positive effect on development of economy within ECO countries by impact of nations spending, composition on the economic development of countries in Economic Cooperation Organization in year 1995 & 2009.

Matovu and Norris (2012) examined the effect of government expenses composition in educational demand and economic development. In making schooling decisions for their children, the researchers used a dynamic general equilibrium analysis of overlapping generations. They investigated the effects of different government spending compositions on education, health, infrastructure and payment transfer on household schooling and asset accretion decisions. Both the researchers discovered that expanded public expense on essential and optional training has a positive macroeconomic and destitution decrease influence in nations where it are fixed or

ascending to school costs. Ranjan & Sharma (2013) looked into how government investment on development in India affected growth in the economic from 1950 to 2016. The researchers found that federal spending greatly boosts growth in the economy. And also stated that the variables were Co-integrated.

In Saudi Arabia, Yousif (2014) investigated a prosperous connection among the spending's of government and Economic development. Ram (2014_) for his part investigated relationship among the government spending and the economic growth of 115 countries from year 1990- 2010. Government expenditure have beneficial impact on economic development employing the cross- sectional technique & data over the period, this result has been discovered.

Amaechi (2014) discovered on inverse relationship between BOP in one side and both domestic price range and foreign exchange level on the other in a multivariable analysis involving the relationship between BOP and selected macroeconomic aggregates .Ram (2014) investigated Although overall state spending had a negative impact on growth, government spending had a large positive externality effect on growth, notably in the sample of emerging nations.

The volume of the government has a tremendous influence on the state of the economy; Abdullah (2014) have investigated a link between the spending's of the government and development of the economy. Author suggested to increase spending on the socio and economic activities along with development of the infrastructures of the nation. Using time series data from 1965to 1996, Hamid (2010) studied the relationship between government spending and economic expansion which discovered that expenses on investment in physical property is detrimental. On the development while expanded utilization invigorates development.

Abdullah (2014) examined the connection among public spending and economic expansion. According to the author, the volume of government has a significant impact on how well the economy performs. Author counseled the government to expand expenditure on social, economic, and infrastructural projects. Hamid (2010) Using time series data from 1965 to 1996, it was determined that increasing production spending (physical investments) has an adverse influence on growth whereas increased consumer expenditure promotes growth.

In Greece Dritsakis and Adamopoulos (2014) investigated how spending by the government and economic expansion are related. The primary goal of study is using the Wagner assumption to determine the link among government spending's and economic growth in Greece. It used data from 1960 to 2001 to determine whether the variables was stationary applying (ADF) Adjusted Dicker Fuller test. The paper examined the correlations between the variables across the long and short terms using co integration technique and the Error correction model, respectively, and used the causality to determine the supervision of the causality among public spending's and economic expansion. This hypothesis was found to be correct in the majority of spending areas, including health sector, educational development, culture, and so on, all of which propose higher long-term elasticity toward progress. Wagner hypothesis is used in the Geek economy, according to the paper.

For a number of wealthy nations, Anderson, Wallace, and Warner's (2014) findings showed that there is a general connection among government spending and government income (export). Narayan (2014), who backed this study, discovered evidence of a two-way causal connection exists between government revenue and expenditures.

Econometric findings reveals, the actual government capital spending remarkably increases real production. Actual government recurrent spending has a little impact on progress according data interpretation. Fajingbesi & Odusola (2014) conducted an observation of the link between federal spending and economic progress in Nigeria.

Author Barro and Sala (2015) stated that the activities of government affects direction of progress of economy in accordance with this. Similar to this, Atuland Khalkali (2015) noted that fiscal policy has a major role in forecasting future economic development in endogenous growth models.

Economic reforms and macroeconomic stabilization, he argued, resulted in strong growth and low inflation, which had a significant impact on poverty as per Volker (2015) directed an exploration on Tanzania's development cycle and decrease in destitution that how the enormous scope privatization, progression and money related and financial strategy influence the neediness through various channel, similar to private speculation and trade market.

In their 2015 study, Nkechukwu and Okoh examined the partial and combined effects of disaggregated capital consumptions on financial growth in Nigeria. The review looked at the connection among spending of government and financial increment. Yearly information for 1981-2015 Results showed that there exists for positive connection among economic progress and capital use on training and street; while there is for some time run negative connection between monetary development and capital consumptions on agribusiness and wellbeing.

In the example of Pakistan, Javed (2015) looked at the connection between the level of inflation, economic expansion, and federal spending. Econometrics procedures such the Augmented Dickey Fuller (ADF) unit root test, ARDL, co integration, and Granger-causality test were used to analyze time series data during 2000 till 2015. There is a significant relationship between rate of inflation, economic growth and government expenditure.

After study, Imran (2015) found a link among the Spending of Government, Economic Development and poverty Bangladesh. The goals of this thesis are to examine and analyze trends in government spending and its composition from a Bangladeshi perspective, Furthermore to develop an analytical framework for assessing the distinct. It took a gander at the impacts of different government spending things on GDP development and neediness more than a 31-year time frame. To learn whether the information was fixed, it applied the ADF test. The Granger causality test and the Johanson co-reconciliation test were utilized to investigate the long-and transient connections between open spending, monetary development, and the decrease of destitution. It was shown that administration spending in Bangladesh had minimal bearing on either financial development or the annihilation of destitution.

The study found that although government capital expenditures had no significant influence on alleviating poverty, positive and productive spending do, according to an Autoregressive Distributed Lag (ARDL) approach. The link between government expenditure and high unemployment in Iran's Sistan and Baluchestan Province from 1978 to 2008 was examined by Nazar and Mahmoud (2015).

Unezea (2015) used panel cause and effect and co-integration tests to test the causal connection among financial development and development of economy in the Sub-Saharan African nations. Inferring a connection of causation between the factors, he

proposed that greater economic growth causes greater wealth creation and conversely. Using series of data from the years 1980's to 2016, the study also looked into what impact state spending had on Malawi's economic development by sector.

In contrast to the long-term findings, which indicates a strong positive effect on economic growth and agronomic and defense spending, the findings showed no significant impact of public sector expenses and economic progress. Nevertheless, the There was a negative correlation among economic progress and spending on social protection, transportation, and communication.

Okur (2015) examined the connection among government expenditure, exports, and economic growth from 1980 to 2015. He discovered a one-way a relationship between export and economic prosperity and government spending.

Genius et al. (2015) used pattern of time to ascertain the impact of fiscal policy aggregate particles on joblessness, Genius et al. (2015) had to use annual data for the period for the years 1980 to 2010 with VECM. Tax system and ongoing government spending both help reduce unemployment. Whereas capital investment of government has a negative impact on unemployment. Etale and Ayunku (2015) studied how federal spending effect on agriculture on unemployment reduction; it had no effect.

Loizides and Vamvoukas (2015) used the Trivariate Granger causality analysis studied the link between gov't spending and economic growth in Greece, UK, and Ireland. In all of those countries studied, the writer established increased volume of government leads to increased growth in the economy. Consequences was true in both the long and short run for UK and Ireland. When inflation is taken into account, the also showed that economic progress increases government spending in countries like Greece and the United Kingdom.

Benneth (2016) investigated into Nigeria's fiscal policy's way of decreasing poverty. The study, which employed the general equilibrium model, came to the conclusion that while government revenue favorably redistributes income, government spending is a crucial and effective tool for doing so. He added that the financial system should be planned in such a manner that it redistributes income from the wealthy members of society to the less fortunate.

Using a heterogeneous panel, Gregoriou and Ghosh (2016) looked into how government spending affects economic growth. The authors found that, although the important adverse by country, nations with high government expenditure generally have higher growth.

Ketema (2016) investigated effect of nations spending on development of economy during time interval. The paper found the connection among nation's expenses and GDP using both descriptive and econometric methods. The descriptive analysis reveals a disparity in the effect of nations spending on stimulating economic progress. The irregularity of governmental spending is attributed by the study to the presence of restricted earnings buoyancy, undependable sources of funding, and bad fiscal policy. The Johanson Maximum Likelihood Estimation procedure was used in the econometric analysis to test the link between sectoral public spending's and GDP. According to the econometric investigation, human capital financing has a remarkable long-term boost to GDP. Nations spending on investment (productive) is negatively but insignificantly impacts the expansion of real GDP.

Ogwuru (2016) revealed that financing by the government had a beneficial effect on Nigeria's macroeconomic stability. Using the Granger causality test, Komain and Brahmasrene (2016) examined the relationship among public spending and economic development in Thailand. The findings revealed that in the long run, public spending and economic development are not co- incorporated. The findings revealed one-way connection, with reason running from public spending to growth.

Olugbenga and Owoye (2016) examined the connection among spending of government and economic expansion in 30 OECD nations from year 2000 to 2014.Their findings revealed a long-term connection between state spending and economic expansion. Furthermore, In 16 of the countries they studied, the authors discovered unidirectional government spending and growth are related, lending supports the Keynesian hypothesis.

Nigeria's economic development and nations spending were subject of Emmanuel's (2018) investigation. The study's goals are to ascertain Nigeria's trend in public spending and the connection between that spending and the country's economic expansion. All of the variables in the structure have been unstable at their levels,

according to the findings of the paper's test the presence of stationarity to use the magnified Dickey Fuller (Augmented dickey) approach. The findings demonstrate that those factors must be jointly integrated at critical thresholds of 5% and 10% in order to establish a long-term role of public expansion and economic growth. Error correction model was applied to examine the short-term relationship. According to the study's findings, Investments made by the public and private sectors had little impact on expansion of economy in the constant study period.

Nazir (2018) explored the connection between public expenditure, country exports, and economic development. He used Panel data from 1995 to 2011 and discovered a positive and significant relationship. Oluluet al. (2018) examined the empirical connection between government and spending and macroeconomic growth at year 1980 and 2010 in context of Nigeria. The Nigerian findings revealed a negative correlation between government expenditure and taxation and macroeconomic progress.

Gemmellet et al. (2018) investigated that a sample of OECD nations between 1970 and 2011, there was a long-term correlation between GDP as well as modifications in total government spending.

Co-integration analysis was used by Torruamet et al. (2018) to assess the relationship between federal spending on higher level of literacy as well as macroeconomic economic development of Nigeria from 1990 and 2011. The results of the investigation, which applied time series data, explains there is respectively tertiary education and economy and financial progress in Nigeria are influenced favorably by public spending.

Al-Shatti (2018) investigation at how government expenditure effects on macroeconomic development in Jordan from 1993 to 2015. The impact was measured using two mathematical models: the first measured the first assessed the impact of current functional spending, whereas the second assessed the impact of capital functional spending on Jordanian economic growth. Findings revealed that the effect of current and capital education expenses on macroeconomic development has been ineffective.

Abdullah (2000) examined the connection between Saudi Arabia's public spending and economic expansion. According to the Abdullah, the volume of government has a significant impact on economic performance. He suggested that the government invest

more on social, economic, and infrastructure projects. Furthermore the public sector should be aided and supported by the government in order to hasten economic expansion.

Gemmellet (2018) studied the connection among GDP and public spending in the United States from 1987 to 2012. The causality findings disclosed that an increase in GDP is caused by all government spending. On the other hand, GDP growth does not lead to an increase in government spending. Furthermore, the evaluation outcomes demonstrated that US economic growth is boosted by public spending. The authors came to the conclusion that, according to the granger - causality, the Keynesian theory has more of an impact on American economic policy than Wagner's law.

In a cross-sectional analysis compromising 71 nations, Cooray (2019) reviewed the study and employed an analytical model that takes into consideration government spending and the effectiveness of governance. In order to explore the causal link between quarterly data in Egyptian, Israel, and Syria, the researchers utilized a multidimensional co-integration and VAR model technique. The findings demonstrated a relationship among volume of government and effectiveness and economic expansion. In the bivariate framework, the researchers noted having both direction and long-term negative link between government expenditure and economic expansion. Furthermore, military load has a detrimental impact on the economy in all nations, according the causality test conducted within the model parameters design (that covers the percentage of governmental civilian spending in GDP, the army load, and economic development).

Result indicate a long fruitful connection among public spending and both Higher education and economic development in Nigeria. Oni and Ozemhoka (2019) investigated the link among government spending and economic progress in Nigeria. The goals of the investigation are to ascertain whether there is a correlation among GDP and spending’s of government in Nigeria and to look into how government spending affects economic growth in Nigeria. It used figures starting from 1981 to 2011, and after confirming that data was steady using the ADF test, the econometric approach known as normal least - square (OLS) was applied. The primary conclusions are that economic expansion and government spending are positively correlated.

The Granger causality test was utilized by Komainand Brahmasrene (2019) to look into the connection between Thai state expenditure and economic development. The research showed no link among public spending and economic expansion. Additionally, a one-way association was found in the research, with causality running from federal spending to growth. Lastly, the discovery stated that nations spending has a significant positive effect on economic growth. As per various academics have seek to investigate the impact of government spending on economy development. For instance, Laudau (2019) investigated, for a sampling of 96 nations, the result of state (consumption) expense on economic development. And found that national expenditure had a negative impact on the expansion of real production.

From 1990 to 2015, Olugbenga & Owoye (2020) looked studied the connections among government spending and economic development for a sample of 30 OECD nations. The research found a long-term connection between government spending and economic expansion. Keynesian hypothesis was further supported by the authors' discovery of a single explanatory relationship among government spending's and growth in 16 of the studied nations. However, in ten of the countries, causality runs from economic growth to government spending, confirming Wagner's law. Lastly, the authors identified a feedback link for four nations between government spending and economic expansion.

According to their research, government expenditure on defense and education has a beneficial effect on economic development, whereas welfare spending has a small but noticeable negative effect. Donald and Shuanglin (1993) looked at how different sorts of spending affected economic development differently in 58 different nations.

In the late 1970s and early 1980s, Niloy, Emranul, and Osborn (2020) had to use a disaggregated technique to look into the effect of public spending in 30 developing nations. The authors confirmed that government capital expenses as a share of GDP has a remarkable beneficial relationship with economic progress, but the portion of nations capital expenses as a share of GDP was resulted to be insignificant. When monetary restrictions and factors are taken into description, public investment and school funding are the only factors that significantly affect economic development at the sectoral level.

Author Erkin (2020) proposed a new framework for New Zealand to research the connection between governmental spending and economic expansion. The empirical result show the increased government spending does not reduce the use but instead boosts private investment, speeding up economic development.

2.2 Empirical Review

S. No.	Authors	Major findings
1	Mohammadi and Maleki (2012)	The findings show that the composition of governmental expenditure had an effect in economic progress of nations in the Organization of Economic Corporation from year 1995 to 2009. The findings revealed that government expenses on health has a statistically have no positive impact on economic expansion, whereas government investment on education and Defense has a beneficial effect on economic development of ECO countries.
2	Matovu and Norris (2012)	The study emphasizes the effect of nations spending composition on educational demand and economic growth. In making schooling decisions for their children, the researchers used a dynamic general equilibrium analysis of overlapping generations. They investigated the effects of different government spending compositions on Choices about household asset accumulation and education are influenced by technology, transfer payments, and education.
3	Amaechi (2014)	In a multivariable analysis involving the relationship between BOP and selected macroeconomic aggregates, the study discovered an inverse relationship between recurrent expenditure in one part and both domestic price range and foreign exchange cost on the other.

4	Barro and Sala (2015)	The study focused the majorly government activity in determining the direction of economic growth. Similarly, Atul and Khalkali (2015) stated that fiscal policy is critical in predicting future economic growth in endogenous growth models.
5	Volker (2015)	In the case of Nigeria, the study looked at the role of fiscal policy in alleviating poverty. The study, which employed the general equilibrium model, came to the conclusion that while government income positively redistributes wealth, government spending is a crucial and efficient mechanism for doing so. He went on to conclude that The goal of fiscal and monetary rules should be to transfer amount from the rich to low income people.
6	Benneth (2016)	The author continued by saying that economic planning should focus on income distribution from the rich to the poor. In the study, it was examined how fiscal policy could help Nigerians who were suffering from poverty. The study employed the equilibrium model, and the researchers came to the conclusion that while government income positively redistributes wealth, state spending are a crucial and effective mechanism for doing so.
7	Emmanuel (2018)	The goal of the study is to determine the public spending trends in Nigeria and the connection between public spending and national economic expansion. The research examined the connection among public expenditure and Nigeria's economic expansion. All of the variables in the system found non-stationary at their levels, according to the findings of the paper's for the existence of stationarity using the ADF analysis.

8	Nazir (2018)	The research looked in to the connection among nations spending, country exports, and economic expansion. He used Panel data from 1995 to 2011 and discovered a positive and significant relationship. Okur (2015) found the connection among economic growth, exports, and countries spending from 1980 to 2015. He discovered a one-way causality that goes from export to economic development and spending's of government.
9	Chih, Hsu and Youni (2018)	The study viewed at the link between GDP and public spending in the United States from 1987 to 2012. The outcomes of the causal analysis showed that GDP growth is a result of total public spending. GDP growth does not guide to higher government spending.
10	Oni and Ozemhoka (2019)	The study looks at the association between federal spending and Nigeria's economic expansion. The goals of the study are to ascertain whether there is a correlation among Economy and public expenditure in Nigeria and to look into how government spending affects economic growth in Nigeria. This applied data from 1981 to 2011, and the econometric technique of (OLS) after ensuring that the data figures was stationary using the ADF test. The main findings are that there is a positive relationship between economic growth and government spending.
11	Laudau (2019)	The research looked at the impact of nations (consumption) spending on economic development for an examples of 96 nations and discovered that state spending has an adverse impact on actual increase in production.

12	Olugbenga and Owoye (2020)	From 1990 to 2015, the study inspect the connections among spending of government and economy development in 30 OECD nations. A long-term connection among nations spending and economic expansion was found through regression analysis.
13	Niloy, Emranul and Osborn (2020)	The research examines how government expenditure throughout the late 1970s and early 1980s affected economic development in 30 developing nations. The authors confirmed a large positive association between nation capital spending as a part of GDP and economic growth, but they also demonstrated that this relationship is negligible in boosting economic growth.
14	Erkin (2020)	This study proposed a new framework for New Zealand to check the link among national spending and development of economy. Empirical findings show that increased government expenditure helps boost private investment, which quickens economic growth rather than harming consumer spending.

2.3 Research Gap

When it comes to endogenous growth, the government's involvement in fostering knowledge accumulation, research & innovation, productive public investment, the development of human capital, and rule of law may lead to growth that is both short-term and long-term. Among the methods that the government might promote economic growth are through guaranteeing resource allocation efficiency, controlling markets, stabilizing the economy, and resolving social problems.

The aim of this paper not to resolving the expenditure of government- macroeconomic variables have conflict but preferably to examine the results so to add to the literature of government spending's on macroeconomic activities in Nepal. The study is useful light by considering the effects of government expenditure on macroeconomic

variables. The study focused on various Nepalese and foreign literature related to this research topic and it was found that some researchers explore the positive relationship whereas some researchers found negative relationship between government expenditure and macroeconomic variables.

Nepal has been implementing periodical economic plan for economic development since late 1950s. There is increasing trend in government expenditure by every year. The Gross domestic product (GDP) growth rate is substantial if it can deliver economic development. However, Barma (2010) noted that the nominal GDP growth rate is lower than the pace of governmental spending in Nepal. Further, he mentioned that there is increasing dependency on foreign loan to fulfill the large requirement of resources for principal repayment and loan interest and to accomplish the increasing resource gap.

Nepal has completed more than five decades of its planned economic development. However, the economic indicators have not shown positive sign. The volume of government expenditure is increasing in different plan but the basic issues are almost same from first five year plan to eleventh three year interim plan- poor monetary growth, low level of investment, accelerated population increase, massive external load, utter destitution, and vast gap between rich and poor (Paudyal, 2010). Hence, it is required to check in detail that how the government expenditure is enlarging and check are development promoting.

According to the Nepalese literature, Nepalese researchers have investigated the connection between government spending and economic activity. Many researchers test the relationship between government expenditure and economic activities by taking single and not more than two variable such as government expenditure and GDP. The study is focused on macroeconomic by taking different variables like unemployment, poverty reduction, inflation and export. Researchers did not apply the tools to measure the long-term correlation between macroeconomic variables and government spending. Thus, this research is comprehensive research which takes the most significant government expenditure makes significant impact on Nepalese macroeconomic.

The fiscal deficit causes economic inflation. A significant budget deficit in many emerging nations discourages private investment, lowers productivity and employment, and worsens poverty. Numerous studies indicate that government expenses contributes

to both economic expansion and the eradication of poverty, yet because of excessive spending, the majority of emerging nations are now running negative cash flow.

2.4 Conceptual Framework

The conceptual framework that follows serves as the basis for this investigation. The plan demonstrates that the different government expenditure effect on economic growth of the country.

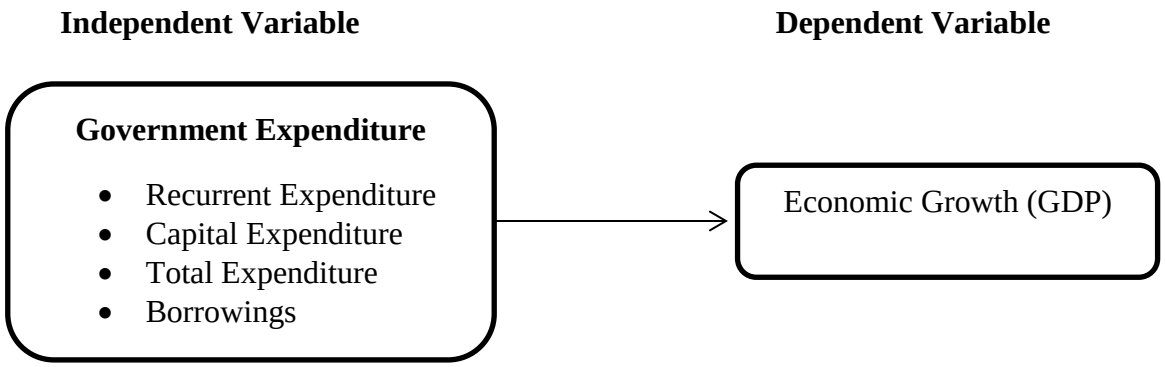

Fig. 2.1: Theoretical Framework

Government Expenditure

Authors like Barro (1990), Barro & Sala (1992), and Easterly & Rebelo (1993) stressed the significance of governmental policies in economic development despite fact that endogenous growth models do not give government a large role in the growth process. The Keynesian and spontaneous growth models serve as the foundation for the study's framework. Increased government expenditure spurs faster economic development, as per the Keynesian paradigm. Additionally, several authors focused on the productive or ineffective aspects of government expenditure. Others, such as Kneller, Bleaney, and Gemmell (1999), claim that the type of spending by the government has a bigger impact than the overall amount (Nijkamp & Pot) (2004). Significant growth factors include the makeup of government spending.

Economic Growth

Ricardian theory introduced the theory that the entire economy is founded on the triangle-shaped interaction of the three economic actors of capital, labor, and land, which produce rent, wages, and profits, respectively. Driving forces in the process are

rent, wage and profit that animate economic activities so that production increases and capital formation is attained. According to Keynesian theory, the total income is a function of total employment. It means, greater the national income higher the employment or vice versa. The effective demand is a role player in the development process. To attain a higher level of income and employment, Keynes visualized the role of investment either promoted by marginal efficiency of capital of lowered cost of interest rate. Thus, the investment multiplier plays important role for economic development (Thirlwall, 1972).

Recurrent expenditure

Recurrent spending on products and services is spending that neither results in the creation of nor leads to the purchase of property (new or second-hand). It mostly comprises of spending on wages, salaries, and other compensation, buying products and services, and using up fixed assets (depreciation).

Capital Expenditure

A business makes capital investments to acquire, pay for the purchase, maintenance, and improvement of physical assets such as real estate, construction equipment, and other tangible resources. In order to expand the scope of their activities or to add some sort of economic advantage, businesses make this kind of financial investment.

Total Expenditure

Overall cost is the sum of all expenses incurred to generate an output of any kind. Accounting-wise, the financial reporting process, where overhead expenses must be allocated to specific assets, is where the total cost idea is most useful. Neoclassical economists contend that governmental investments deter companies from making similar expenditures. Neoclassical economics holds that fiscal policies that encourage high levels of public spending hurt the economy because they discourage sector investment and consumption.

Borrowings

The term "government borrowing" describes borrowing by a government, either domestically or abroad. Government borrowing, then, is the entire sum of money that a nation's national government has borrowed to pay for its expenditures on public goods and services.

CHAPTER III

RESEARCH METHODOLOGY

This chapter deals with the method, which is employed for the accomplishment of this study. Essentially, the goal is to provide the investigation with a suitable action plan. This study is based upon logical deductive reasoning. This chapter has concentrated on the research strategy and plan, study population and sample size, kind of data, and data sources, and methods of the data analysis. It also includes sampling techniques and data collection procedures. Further the primary statistical techniques and models are listed in this chapter which investigate the connection among government spending and economic expansion of Nepal.

3.1 Research Design

Observational research method is applied to achieve the complete and reliable description of economic expansion and spending's of government applied by government of Nepal. Descriptive and casual comparative research design underlies this study. Descriptive statistical tools such as mean median standard deviation provide the actual picture of government expenditure and macroeconomic variables. Causality finds the cause and effect of dependent and independent variable, when evaluating the stability of the data and the long-term relationships between the dependent and independent variables, the normality test and the co-integration test are both utilized.

A structure and strategy of investigation for carrying out a study with the most amount of control over variables that can affect the reliability of the findings. It is a strategy that lays out the details of when, how, and where data will be gathered and evaluated. This research used explanatory and causal research techniques to address the many problems with Nepal's governance and economic development. The descriptive research design has been adopted to determine adequate information associated with macroeconomic variables and government expenditure in Nepal.

The causal comparative research design have been used to study those observed connection between different government spending's and economic growth of Nepal. The causality and co-integration analysis have been performed based on causal comparative research design. To test the stationery and degree of variable integration,

Augmented Dickey Fuller (ADF) unit root test has been has been carried out. The direction of the causality and long run connection between government spending's and macroeconomic factors has been analyzed using co-integration ARDL approach.

3.2 Population and Sample Size

The study's goal is to look at the relationship among Nepal's government spending and economic expansion. Books, private sources, articles, newspapers, websites, and official records are among the sources of data, whilst the population of this research is made up of all of the government expenditures made during the specific fiscal year. The study consists of 21 years of data from 1999 to 2020. This study has employed 21 years of data after liberalization of the Nepalese economy. All data are time series data from 1999 to 2021 are collected on the respective heading of dependent and independent variable of the study.

Table 3.1

Variables selected for the study period

S.N.	Variables	Study period	Observations
1.	Capital expenditure	2000-2020	21
2.	Recurrent expenditure	2000-2020	21
3.	Borrowings	2000-2020	21
6.	Gross Domestic Product	2000-2020	21

Source: Authors own calculation

3.3 Nature and Source of Data

This study relies on secondary data to get at its conclusion on government expenditure and macroeconomic activities of Nepal. Time series data are collected mainly through the Quarterly Economic Bulletin published by Nepal Rastra Bank, an Economic Survey from Ministry of Finance. Despite this, main source different books, article, journal, newspapers and website are visited to check the reliability and validity of data.

3.4 Data Analysis Technique

In data analysis, figures and statistics are critically analyzed and interpreted in an effort to understand why certain key discoveries have emerged. Data analysis consists cleaning, modifying, and examining in order to find usable information that may be used to make judgments and enhance decision-making. Following are the statistical data analysis techniques used to achieve the research objectives.

There are several methods for analyzing the connection among government expenditure and macroeconomic variables of Nepal. The various research has used various methods to research the connection among Nepal's government spending and national economic development.

This analysis employs correlation and regression analysis. To determine the relationship between two variables, the correlation analysis is used. Similarly, the regression is performed to identify the effect of government spending on Nepal's economic expansion.

3.4.1 Descriptive Statistics

An outline of the descriptive data related to the sample's dependent and explanatory factors has been utilized in the study to clarify the variables during the sample period. Descriptive analytical tools like standard deviation, lowest and maximum values, and the mean, median, of different variables such as recurrent expenditure, capital expenditure, total expenditure and borrowings as independent variables and GDP as independent variable.

3.4.2 Correlation Analysis

Additionally, correlation analysis was included in the descriptive research design. Correlation analysis has mostly been used in this study to establish the relationship's strength and direction between several dependent variable pairs and explanatory variables. It shows the movements of two variables and their association. The bivariate Connection of the study was defined by bivariate Pearsons correlation coefficient. Correlation coefficient values vary from -1 to +1. Two factors are said to have strong negative relationship if their correlation coefficients are exactly -1 and they move together perfectly in the opposite directions. On the other hand, the factors are said to be entirely positively connected if the correlation coefficient is +1.

3.4.3 Regression analysis

Finding the relationship among variables and one or more relationship between the independent variable is the goal of regression analysis. A regression coefficients equation is created using estimations of the model parameters and a description of the connection that is postulated. Modeling the link between such a response variables and other predictor variables is done using regression analysis. The model is then put through a number of tests to see if it is effective.

Bivariate regression model

A sort of statistical analysis is called bivariate regression analysis which is applied to evaluate the impact of independent variable on dependent. X and Y are typically used to represent two variables, one of which is an independent factor (or explanatory variable) and the other is a variable (or outcome variable). However these models of study have four Independent Variables, such as compensate on recurrent expenditure, capital expenditure, total expenditure and borrowings on dependent variable gross domestic product. Therefore study has used simple linear regression. So the study regressed each independent variable with gross domestic product. Linear regression is a way to model the connection between two factors. The bivariate regression used in the study are presented below:

$$GDP_t = \alpha + \beta_1 RE_t + U_t \quad \text{..... (1)}$$

$$GDP_t = \alpha + \beta_1 CE_t + U_t \quad \text{..... (2)}$$

$$GDP_t = \alpha + \beta_1 TE_t + U_t \quad \text{..... (3)}$$

$$GDP_t = \alpha + \beta_1 B_t + U_t \quad \text{..... (4)}$$

Multivariate regression models

Multivariate regression model is known as a multivariate multiple regression when it contains more than one predictor variable. A single regression model with several outcome variables is estimated using the multivariate regression approach. The multivariate models used in the study is presented as follows:

$$GDP_t = \alpha + \beta_1 RE_t + \beta_2 CE_t + \beta_3 TE_t + \beta_4 B_t + U_t$$

Where, GDP= Gross Domestic Product, RE= Recurrent expenditure, CE= Capital Expenditure and TE = Total expenditure and B = Borrowings, α, β_1, β_2, β_3, β_4 = Parameter, and U_t = error terms = normally, independently and identically distributed.

3.4.4 ANOVA Test

ANOVA is applied to evaluate how well a regression line fits the data. It aids in determining the regression model's overall significance.

3.4.5 Multicollinearity test

The assumption of multiple regressions is that, there should not be strong correlation between or among explanatory variables. To test the multicollinearity, the correlations among the variables are calculated.

CHAPTER IV

ANALYSIS AND RESULTS

The empirical results of the research of government expenditure and economic growth in Nepal are covered in this chapter. This study analysis the relationship and character of causality among spending's and economic development in Nepal. The factors, Gross National Product, and the independent variables, capital spending, recurrent spending, and borrowings, have all been incorporated in this study.

In this study discussion is presented in steps, beginning with the pattern of the government spending and economic development in Nepal, applying ADF test Various analysis such as Descriptive statistic, correlation and analysis of empirical result of unit test has been done. Along with co-integration analysis using Autoregressive Distribution Lag (ARDL) bound test. Determination of causality test among nations spending and economic development in Nepal is further next step and finally, concluding the remarks provide the overall finding of the chapter.

4.1 Pattern of gross domestic product and government expenditure

This section deals with the pattern of selected economic development in Nepal and government spending's during the period of fiscal year 2000 to 2020.

4.1.1 Pattern of GDP and Recurrent expenditure

Table 4.1 shows the pattern of dependent variables i.e. GDP and independent variable recurrent expenditure during the fiscal year 2000 to 2020. The table shows that gross domestic product growth rate is highest in the fiscal year 2008 (21.16 percent) followed by 2009 (20.69 percent), likewise the lowest GDP growth rate in the fiscal year 2018 is lowest (1.25 percent). Table clearly shows that average GDP growth rate during the fiscal year 2000 to 2020 11.66 percent and standard deviation of growth rate during the period is 5.06 percent.

Recurrent expenditure is highest in fiscal year 2017 (40.94 percent) followed by 2009 (35.92 percent), likewise the lowest Recurrent expenditure rate in the fiscal year 2013 (3.12 percent). Average Recurrent expenditure during the fiscal year 2000 to 2020 is 16.10 percent and standard deviation of recurrent expenditure during the period is 10.87 percent.

Table 4.1

Pattern of gross domestic product (GDP) and Recurrent expenditure (RE)

In millions

Fiscal Year Mid-July	RE %	GDP%	Fiscal Year Mid-July	RE %	GDP%
2000	11.49	16.35	2011	10.66	11.73
2001	26.32	4.06	2012	26	10.98
2002	7.32	7.14	2013	3.12	15.9
2003	11.49	9.04	2014	21.71	8.43
2004	7.62	9.81	2015	12.92	5.77
2005	13.37	10.97	2016	8.84	17.28
2006	8.06	11.27	2017	40.94	13.8
2007	15.49	12.07	2018	35	1.25
2008	14.87	21.16	2019	2.68	13.59
2009	35.92	20.69	2020	8.67	8.91
2010	15.61	14.6			
Variables	Mean		Standard Deviation		
GDP	11.66		5.06		
RE	16.1		10.87		

Source: *Economic Survey 2021*

4.1.2 Pattern of Gross Domestic product and capital expenditure

Table 4.2 shows the pattern of dependent variables i.e. GDP and independent variable recurrent expenditure during the fiscal year 2000 to 2020. The table shows that gross domestic product growth rate is highest in the fiscal year 2008 (21.16 percent) followed by 2009 (20.69 percent), likewise the lowest GDP growth rate in the fiscal year 2018 is lowest (1.25 percent). Table clearly shows that average GDP growth rate during the fiscal year 2000 to 2020 11.66 percent and standard deviation of growth rate during the period is 5.06 percent.

Capital expenditure is highest in fiscal year 2017 (72.20 percent) followed by 2016 (42.76 percent), likewise the lowest capital expenditure rate in the fiscal year 2012 (-57.86 percent). Average capital expenditure during the fiscal year 2000 to 2020 is 15.90 percent and standard deviation of recurrent expenditure during the period is 26.06 percent.

Table 4.2

Pattern of gross domestic product and capital expenditure

Fiscal Year Mid-July	CE%	GDP%	Fiscal Year Mid-July	CE%	GDP%
2000	10.82	16.35	2011	19.51	11.73
2001	11.09	4.06	2012	-57.86	10.98
2002	-12.49	7.14	2013	12.67	15.9
2003	-9.75	9.04	2014	19.84	8.43
2004	3.31	9.81	2015	32.06	5.77
2005	18.38	10.97	2016	42.76	17.28
2006	8.29	11.27	2017	72.2	13.8
2007	34.19	12.07	2018	32.31	1.25
2008	34.7	21.16	2019	-11.85	13.59
2009	36.57	20.69	2020	13.74	8.91
2010	23.46	14.6			

Variables	Mean	Standard Deviation
GDP	11.66	5.06
CE	15.9	26.06

Source: *Economic Survey 2021*

4.1.3 Pattern of Gross Domestic product and Total expenditure

Table 4.3 shows the pattern of dependent variables i.e. GDP and independent variable recurrent expenditure during the fiscal year 2000 to 2020. The table shows that gross domestic product growth rate is highest in the fiscal year 2008 (21.16 percent) followed by 2009 (20.69 percent), likewise the lowest GDP growth rate in the fiscal year 2018 is lowest (1.25 percent). Table clearly shows that average GDP growth rate during the fiscal year 2000 to 2020 11.66 percent and standard deviation of growth rate during the period is 5.06 percent.

Total expenditure is highest in fiscal year 2017 (40.23 percent) followed by 2009 (36.14 percent), likewise the lowest total expenditure rate in the fiscal year 2020 (-2.74 percent). Average total expenditure during the fiscal year 2000 to 2020 is 15.09 percent and standard deviation of total expenditure during the period is 11.24 percent.

Table 4.3

Pattern of gross domestic product and total expenditure

Fiscal Year Mid-July	TE%	GDP%	Fiscal Year Mid-July	TE%	GDP%
2000	11.23	16.35	2011	18.22	11.73
2001	20.46	4.06	2012	13.74	10.98
2002	0.3	7.14	2013	8.29	15.9
2003	4.91	9.04	2014	12.25	8.43
2004	6.47	9.81	2015	16.27	5.77
2005	14.67	10.97	2016	21.98	17.28
2006	8.12	11.27	2017	14.24	13.8
2007	20.48	12.07	2018	40.23	1.25
2008	20.77	21.16	2019	30.71	13.59
2009	36.14	20.69	2020	22.64	8.91
2010	36.77	14.6			
Variables	Mean		Standard Deviation		
GDP	11.66		5.06		
TE	15.09		11.24		

Source: *Economic Survey 2021*

4.1.4 Pattern of Gross Domestic product and Borrowings

Table 4.3 shows the pattern of dependent variables i.e. GDP and independent variable recurrent expenditure during the fiscal year 2000 to 2020. The table shows that gross domestic product growth rate is highest in the fiscal year 2008 (21.16 percent) followed by 2009 (20.69 percent), likewise the lowest GDP growth rate in the fiscal year 2018 is lowest (1.25 percent). Table clearly shows that average GDP growth rate during the fiscal year 2000 to 2020 11.66 percent and standard deviation of growth rate during the period is 5.06 percent.

Borrowings is highest in fiscal year 2012 (112.30 percent) followed by 2013 (106.90 percent), likewise the lowest borrowing rate in the fiscal year 2018 (-83.05 percent). Average total expenditure during the fiscal year 2000 to 2020 is 28.63 percent and standard deviation of total expenditure during the period is 54.54 percent.

Table 4.4

Pattern of gross domestic product and borrowings

Fiscal Year Mid-July	Borrowing%	GDP%	Fiscal Year Mid-July	Borrowing%	GDP%
2000	11	16.35	2011	4.94	11.73
2001	-36.85	4.06	2012	112.3	10.98
2002	59.39	7.14	2013	106.9	15.9
2003	32.4	9.04	2014	0.64	8.43
2004	51.19	9.81	2015	63.86	5.77
2005	14.55	10.97	2016	-33.42	17.28
2006	-10.14	11.27	2017	101.95	13.8
2007	62.43	12.07	2018	-83.05	1.25
2008	12.59	21.16	2019	72.73	13.59
2009	8.13	20.69	2020	97.4	8.91
2010	-47.71	14.6			

Variables	Mean	Standard Deviation
GDP	11.66	5.06
B	28.63	54.54

Source: *Economic Survey 2021*

4.2 Trend of government expenditure and economic growth of Nepal

This part deals with the trend of selected macroeconomic variable and government during the period of fiscal year 2000 to 2020.

4.2.1 Trend of gross domestic product

This shows the graphical presentation of the GDP growth rate during the fiscal year 2000 to 2020. This figure indicates the fluctuation of the GDP growth rate during the period and it clearly shows that highest growth rate achieve in the fiscal year 2008 and lowest growth rate in the fiscal year 2018.

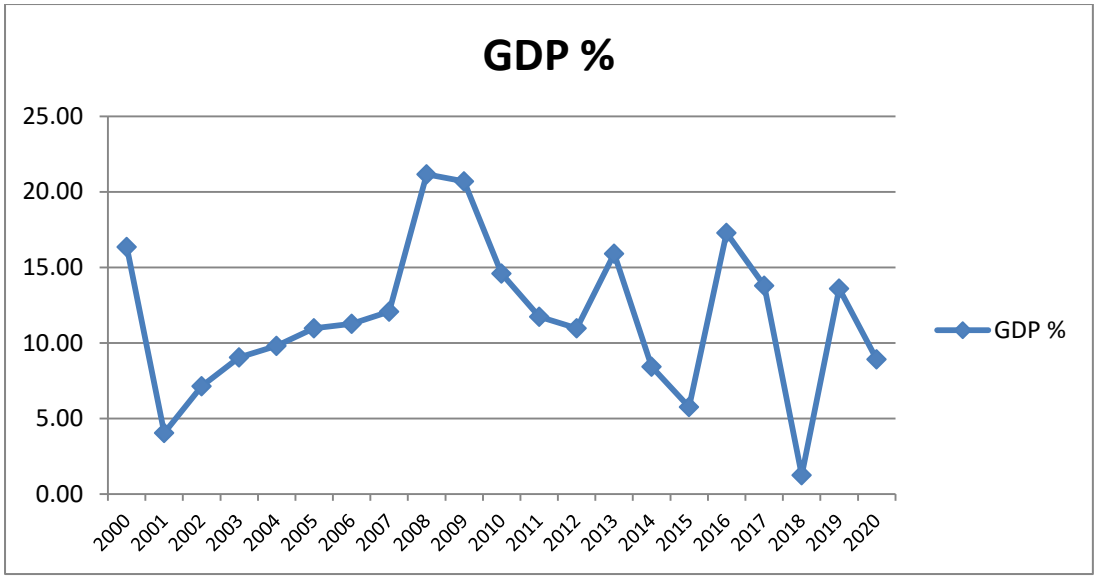

Figure 4.1: *Gross domestic product*

4.2.2 Trend of Recurrent expenditure

Figure 4.2 shows the graphical presentation of the recurrent expenditure growth rate during the fiscal year 2000 to 2020. This figure indicates the fluctuation of the recurrent expenditure growth rate during the period and it clearly shows that highest growth rate achieve in the fiscal year 2017 and lowest growth rate in the fiscal year 2019.

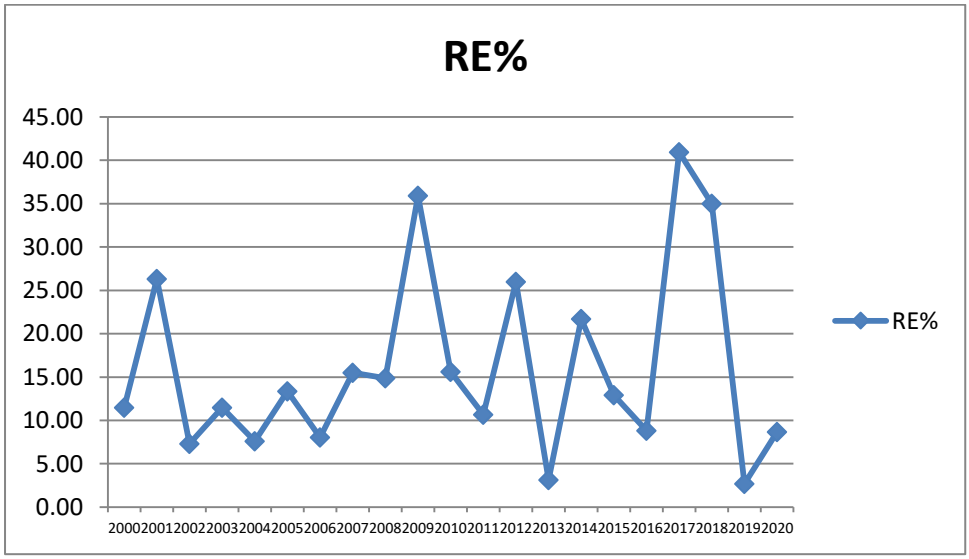

Figure 4.2: *Recurrent expenditure*

4.2.3 Trend of capital expenditure growth

Figure 4.3 shows the graphical presentation of the capital expenditure growth rate during the fiscal year 2000 to 2020. This figure indicates the fluctuation of the capital expenditure growth rate during the period and it clearly shows that highest growth rate achieve in the fiscal year 2017 and lowest growth rate in the fiscal year 2012.

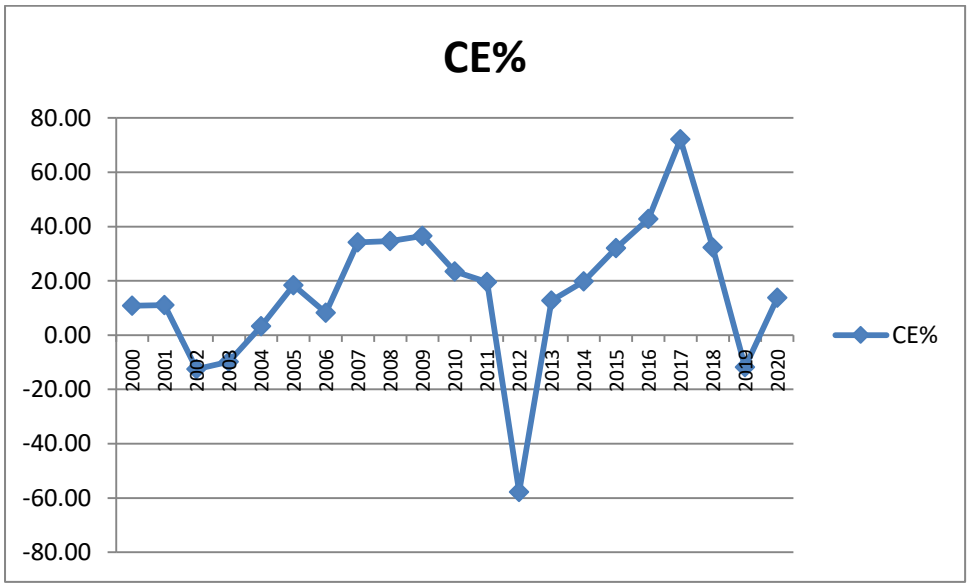

Figure 4.3: *Capital expenditure*

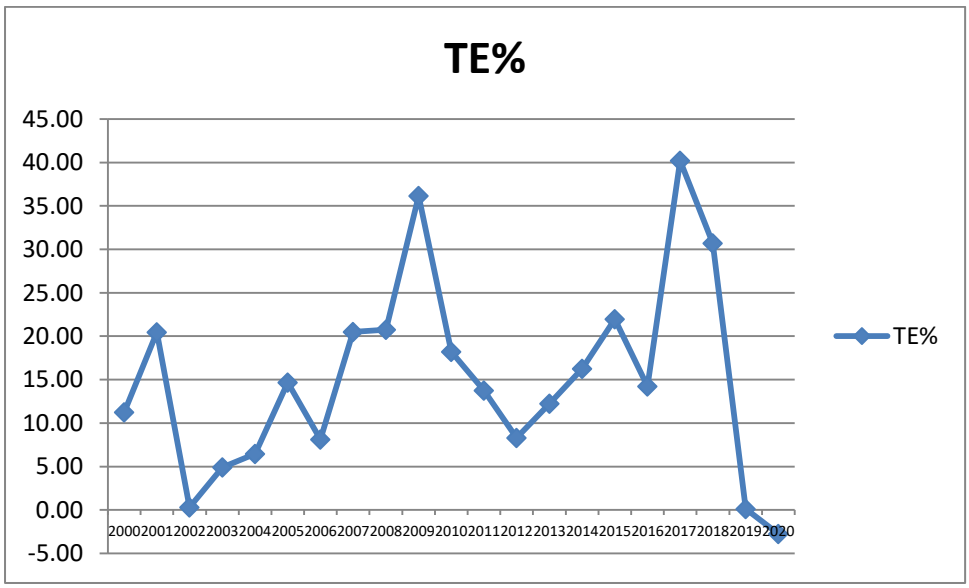

Figure 4.4: *Total expenditure*

4.2.4 Trend of total expenditure growth

Figure 4.4 shows the graphical presentation of the total expenditure growth rate during the fiscal year 2000 to 2020. This figure indicates the fluctuation of the total expenditure growth rate during the period and it clearly shows that highest growth rate achieve in the fiscal year 2017 and lowest growth rate in the fiscal year 2020.

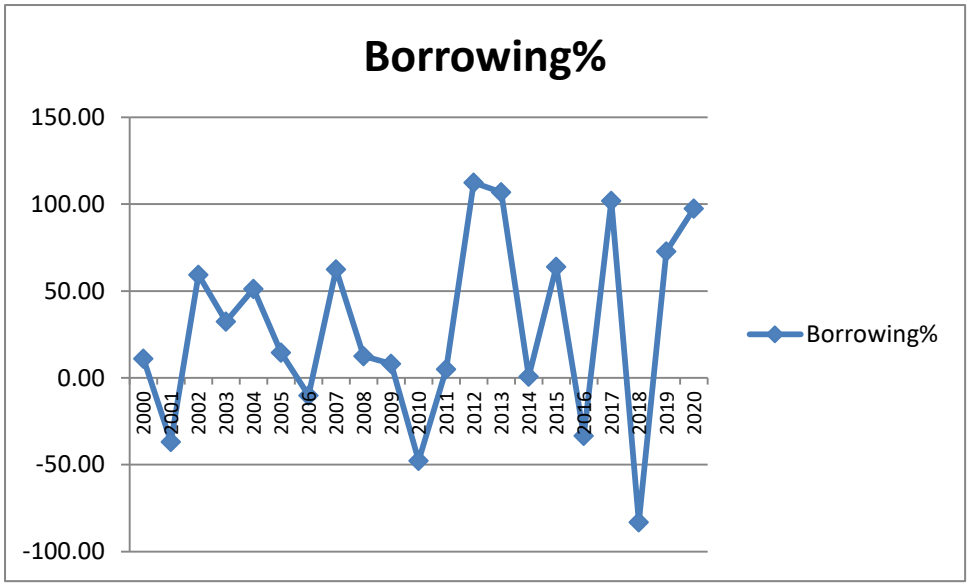

Figure 4.5*Borrowings*

4.2.5 Trend of Borrowings

Figure 4.1 shows the graphical presentation of the borrowing growth rate during the fiscal year 2000 to 2020. This figure indicates the fluctuation of the borrowing growth rate during the period and it clearly shows that highest growth rate achieve in the fiscal year 2012 and lowest growth rate in the fiscal year 2018.

Table 4.5

Descriptive statistics

Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
RE %	21	2.68	40.94	16.10	10.87
CE%	21	-57.86	72.20	15.90	26.06
TE%	21	-2.74	40.23	15.09	11.24
Borrowing%	21	-83.05	112.30	28.63	54.54
GDP%	21	1.25	21.16	11.66	5.06

Source: *Economic Survey 2021*

Table 4.4 shows that minimum recurrent expenditure is 2.68 percent where maximum is 40.94 percent and average recurrent expenditure is 16.10 percent along with standard deviation of 10.87 percent. The macroeconomic variable for GDP growth rate that was chosen has a range of 1.25 percent to 21.16 percent, with an average of 11.66 percent and a standard deviation of 5.06 percent. The capital expenditure rate has a standard deviation of 26.06 percent and a range of -7.86 percent to 72.20 percent, with an average of 15.90 percent. Total expenditure rate ranges from minimum -2.74 percent to maximum 40.23 percent having the average of 15.09 percent with standard deviation of 11.24 percent. Borrowings rate ranges from minimum -83.05 percent to maximum 112.30 percent having the average of 28.63 percent with standard deviation of 54.4 percent.

4.3 Correlation analysis

Economic growth has been gauged using the gross domestic product which is dependent variable and Recurrent expenditure, capital expenditure, total expenditure and borrowings are the proxy of these expenditure which are the explanatory variables used in this study. Therefore, it is reasonable to expect some kind of statistically significant relationship among these pairs of variables. As a result, the purpose of this

section is to describe the nature and strength of association between various pairings of these variables. The analysis has been performed for this purpose.

4.3.1 Correlation of Recurrent expenditure and Economic Growth

Table 4.6*The Pearson Correlation between Recurrent expenditure and GDP*

Correlations

		RE %	GDP%
RE %	Pearson Correlation	1	0.658
	Sig. (2-tailed)		-0.003
GDP%	Pearson Correlation	0.658	1
	Sig. (2-tailed)	-0.003	
	N	21	21

Table 4.6 Shows the Pearson correlation of dependent variable gross domestic product and explanatory variable, recurrent expenditure. It demonstrates that there is a large and negative link between recurrent spending and GDP at sigf level of 0.01 because the P-value is less than the alpha i.e. -0.003 < 0.001. Also, the Pearson correlation value between the variable is 0.658, which shows that there is negative and high correlation between recurrent expenditure and GDP. Hence, recurrent expenditure has a significant role over economic growth of Nepal.

4.3.2 Correlation of Capital expenditure and economic growth

Table 4.7*The Pearson Correlation between capital expenditure and GDP*

Correlations

		CE%	GDP%
CE%	Pearson Correlation	1	0.232
	Sig. (2-tailed)		0.000
GDP%	Pearson Correlation	0.232	1
	Sig. (2-tailed)	0.000	
	N	21	21

Table 4.7 Shows the Pearson correlation of dependent variable gross domestic product and explanatory variable, capital expenditure. It indicates that capital spending and GDP have a considerable connection at the significance level of 0.01 because the P-value is less than the alpha i.e. 00.000 < 0.001. Also, the Pearson correlation value between the variable is 0.232, which demonstrates that there is good correlation among capital expenditure and GDP. Hence, capital spending has a significant role over growth of economy in Nepal.

4.3.3 Correlation of Total Expenditure and economic growth

Table 4.8 *The Pearson Correlation between total expenditure and GDP*

Correlations

		TE%	GDP%
TE%	Pearson Correlation	1	0.144
	Sig. (2-tailed)		0.533
	Pearson Correlation	0.144	1
GDP%	Sig. (2-tailed)	0.533	
	N	21	21

Table 4.7 Shows the Pearson correlation of dependent variable gross domestic product and explanatory variable, total expenditure. It reveals that recurrent spending and GDP are negatively and at the significance level of 0.01, 0.05 and 0.10 these are significantly correlated because P- value is less than the alpha. Also, the Pearson correlation value between the variable is 0.144, which shows that there is positive and insignificant connection between total expenditure and GDP. Hence, total expenditure has significant role over economic growth of Nepal.

4.3.4 Correlation of Borrowings and economic growth

Table 4.9 *The Pearson Correlation between borrowings and GDP*

Correlations

		Borrowing%	GDP%
Borrowing%	Pearson Correlation	1	0.3123
	Sig. (2-tailed)		0.001
	Pearson Correlation	0.3123	1
GDP%	Sig. (2-tailed)	0.001	
	N	21	21

Table 4.9 Shows the Pearson correlation of dependent variable gross domestic product and explanatory variable, borrowings. It reveals that there is significant relationship between borrowings and GDP at the significance level of 0.01 because the P- value is less than the alpha i.e. 00.000 < 0.001. Also, the Pearson correlation value between the variable is 0.3123, it demonstrates a favorable association among borrowings and Gross Domestic Product. Hence, borrowings have a significant role over economic growth of Nepal.

4.4 Regression Analysis

This study uses secondary analysis based on the regression model described in chapter three to test the statistically significant and durability of the results.

Essentially, it examines regression findings from different model parameters to determine the nature and magnitude of the connection among nations spending and economic expansion using series data from year 2000 to 2020. To investigate the relationship between recurrent expenditure, capital expenditure, total expenditure and borrowings have been used as the variables of government expenditure Multiple regression analysis has been applied. Although the gross national product of Nepal is a proxy for its economic development. In this part, an effort has also been implemented to analyze the model's application using statistical significance measures i.e. the t-test, F-test, and modified probability value. (Adj. R2), autocorrelation and multicollinearity.

In table 4.10, the model 1 examines the impact of recurrent expenditure on gross national product. It shows that positive impact on gross national product by recurrent expense i.e. economic growth of Nepal. The 1- point increases in recurrent expenditure impact on GDP by 2.757 times. The R- square value is 0.471, it means that 47.1 percent GDP is explained by recurrent expenditure; the other by other independent factors. The value of DW test is 1.379; it shows that, the model doesn't include any autocorrelation. Therefore, the conclusion from the analysis is that, the ongoing expense significantly boosts the nation's gross national product. i.e. economic growth.

In table 4.10, the model 2 examines the impact of capital expenditure on GDP. It shows that capital expenditure have the positive impact on GDP i.e. economic growth of Nepal. The 1- point increases in capital expenditure impact on GDP by 10.203 times. The R- square value is 0.784, it means that 78.4 percent GDP is explained by capital

expenditure; the other variation is stated by other independent factor. The value of DW test is 1.015; it shows that, no autocorrelation exist in this approach. Therefore, the assumption from the analysis is that, the Gross national product is significantly boosted by capital expenditures i.e. economic growth.

In table 4.10, the model 3 examines effect of total spending's on GDP i.e. economic development of Nepal. This explains that the GDP is positively affected by the total spending's i.e. economic growth of Nepal. 1- Point increases in total expenditure impact on GDP by 1.314 times. P- Value is 0.000, significant on significance level 1 %, 5 percent and 10 percent. The R- square value is 0.84, it means that 84 percent GDP is described by same total expenditure; the other variation is explained by other independent factors. The value of DW test is 1.256; it indicates that the model does not include any autocorrelation. Therefore, the evaluation is that, the same total expenditure has insignificant positive impact on gross domestic product i.e. economic growth.

In table 4.10, the model 4 examines the impact of borrowings on GDP. It shows that borrowings have the positive impact on GDP i.e. economic growth of Nepal. The 1-point increases in borrowings impact on GDP by 6.023 times. The R- square value is 0.685, it means that 68.5 percent GDP is explained by borrowings; the other variation is explained by other independent variables. The value of Durbin Watson test is 1.33; it indicates that the model does not include any autocorrelation. Therefore, the conclusion from the analysis is that, the borrowings have significant positive impact on GDP i.e. economic growth of Nepal.

Table 4.10

Summary output of bivariate regression

Model	Constant	RE	CE	TE	B	R-Square	F-statistics	Sig.	D/W
1	12.654*** (0.000)	2.757*** (0.006)				0.471	7.601	0.006	1.379
2	13.503*** (0.000)		10.203*** (0.000)			0.784	104.094	0	1.015
3	161.870*** (0.000)			1.314 (0.190)		0.84	1.727	0.19	1.256
4	12.011*** (0.000)				6.023*** (0.000)	0.685	36.271	0	1.33

Table 4.11

Summary output of multivariate Regression output

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change	Durbin-Watson
1	.746[a]	.757	.536	.6448	.000	1.296

a. Predictors: (Constant), Recurrent expenditure, Capital expenditure, Total expenditure and Borrowings

b. Dependent Variable: GDP

Table 4.11 shows adjusted R square, regression is 0.757 which means that about 75.7 percent variation in GDP is explained by the regression equation involving four explanatory variables Recurrent expenditure, capital expenditure, total expenditure and borrowings. This implies strong explanatory power for the whole regression. The model is significant as indicated by p-value of 0.000 which is slighter low than 0.01. The value of DW test for dependent variable in the model is 1.296, which shows that our study does not contain any autocorrelation, and the regression use the supposition that the error variances are mutually independent.

Table 4.12

Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	99.189	9	11.021	26.504	.000[b]
	Residual	79.006	190	.416		
	Total	178.195	199			

a. Dependent Variable: GDP

b. Predictors: Recurrent expenditure, Capital expenditure, Total expenditure and Borrowings

Table 4.12, indicates the regression model's overall significance level. The aforementioned ANOVA test reveals that the regression model is often significant. The total sum of square deviation of the observations is 178.195, in which the explained sum of square is 99.189 and the residual sum of square is 79.006. The total degree of freedom in ANOVA test is 199.

4.5 Multicollinearity test

Estimating linear or extended linear models often leads to factors come into play. It happens when there is a significant level of similarity among the predictor variables, which causes the estimations of the regression coefficients to be incorrect and unstable.

The assumption for Ordinary Least Square regression analysis is, there should not be multicollinearity among the explanatory variables. The rule of thumb of correlation coefficient result is that, there should be correlation value less than 0.70 for no multicollinearity among the explanatory variables.

To identify the assumption of OLS, the study deals with the correlation coefficient among the explanatory variables, and identify whether there is multicollinearity or not in each explanatory variable. The values of correlation lies above and below the value i.e. 0.70. For the regression analysis, the explanatory variables having correlation coefficient is less than 0.70, are taken as explanatory variables of the model. The correlation coefficient value greater than 0.70 is not use in the model. Here, the correlation coefficient of all the variables is less than 0.70. So, this all the explanatory variables are suitable to take in the model, because they are free from multicollinearity.

Table 4.13

Multi Collinearity Test

	RE	CE	TE	B
RE	1			
CE	-.051	1		
	.474			
TE	-.006	-.051	1	
	.632	.471		
B	.037	.100	-.057	1
	.603	.157	.425	

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

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.14

Result of hypothesis tests

S. No.	Alternative Hypothesis	Tools/ Method	Accept / reject
1	Recurrent expenses have a substantial influence on Nepal's GDP, or overall economic growth.	Bivariate regression	Accept
2	The association between capital spending and Nepal's economic development is strong.	Bivariate regression	Accept
3	The association between total spending and Nepal's economic development is strong.	Bivariate regression	Accept
4	There is a significant relationship and impact of borrowings on group i.e. economic growth of Nepal	Bivariate regression	Accept

4.6 Summary of findings

- Gross domestic product growth rate is highest in the fiscal year 2008 (21.16 percent) followed by 2009 (20.69 percent), likewise the lowest GDP growth rate in the fiscal year 2018 is lowest (1.25 percent). Table clearly shows that average GDP growth rate during the fiscal year 2000 to 2020 11.66 percent and standard deviation of growth rate during the period is 5.06 percent.
- Recurrent expenditure is highest in fiscal year 2017 (40.94 percent) followed by 2009 (35.92 percent), likewise the lowest recurrent expenditure rate in the fiscal year 2013 (3.12 percent). Average recurrent expenditure during the fiscal year 2000 to 2020 is 16.10 percent and standard deviation of recurrent expenditure during the period is 10.87 percent.
- Capital expenditure is highest in fiscal year 2017 (72.20 percent) followed by 2016 (42.76 percent), likewise the lowest capital expenditure rate in the fiscal year 2012 (-57.86 percent). Average capital expenditure during the fiscal year 2000 to 2020 is 15.90 percent and standard deviation of recurrent expenditure during the period is 26.06 percent.
- Total expenditure is highest in fiscal year 2017 (40.23 percent) followed by 2009 (36.14 percent), likewise the lowest total expenditure rate in the fiscal year 2020 (-2.74

percent). Average total expenditure during the fiscal year 2000 to 2020 is 15.09 percent and standard deviation of total expenditure during the period is 11.24 percent.

- Borrowings is highest in fiscal year 2012 (112.30 percent) followed by 2013 (106.90 percent), likewise the lowest borrowing rate in the fiscal year 2018 (-83.05 percent). Average total expenditure during the fiscal year 2000 to 2020 is 28.63 percent and standard deviation of total expenditure during the period is 54.54 percent.
- The recurrent spending rate has a standard deviation of 10.87 percent and a range of 2.68 percent to 40.94 percent, with an average of 16.10 percent. The macroeconomic variable for GDP growth rate that was chosen has a range of 1.25 percent to 21.16 percent, with an average of 11.66 percent and a standard deviation of 5.06 percent.
- The capital expenditure rate has a standard deviation of 26.06 % and a range of -7.86 percent to 72.20 %, with an average of 15.90 %.
- Total expenditure rate ranges from minimum -2.74 percent to maximum 40.23 percent having the average of 15.09 percent with standard deviation of 11.24 percent.
- Borrowings rate ranges from minimum -83.05 percent to maximum 112.30 percent having the average of 28.63 percent with standard deviation of 54.4 percent.
- There is a strong negative correlation between Recurrent expenditure and GDP at the significance level of 0.01 because P-value, which is 0.003 0.001, is smaller than the alpha. Also, the Pearson correlation value among the variable is 0.658, which shows that there is negative and high correlation between recurrent expenditure and GDP. Hence, recurrent expenditure has a significant role over economic growth of Nepal.
- The link between capital spending and GDP is substantial. At the significance level of 0.01 because the P- value is less than the alpha i.e. 00.000 < 0.001. Also, the Pearson correlation value between the variable is 23.2, which shows that there is positive correlation between capital expenditure and GDP. Hence, capital expenditure has a significant role over economic growth of Nepal.
- The relationship between total spending and GDP is substantial. at 0.05, 0.10, and 0.01 levels of significance because the P- value is less than the alpha. Also, the Pearson correlation value between the variable is 14., strong correlation between total spending and GDP is found.
- Borrowings and GDP are significantly correlated at the significance level of 0.01 because the P- value is less than the alpha i.e. 00.000 < 0.001. Also, the Pearson correlation value between the variable is 23.2, which shows that there is positive

correlation among borrowings and GDP. Hence, borrowings have a significant role over economic growth of Nepal.

- Recurrent expenditure increases gross domestic product. i.e. economic growth of Nepal. The 1- point increases in recurrent expenditure impact on GDP by 2.757 times. The R- square value is 0.471, it means that 47.1 percent GDP is explained by recurrent expenditure. The DW test result is 1.379, indicating that the model has no autocorrelation. Consequently, the analysis's result is that, the recurrent expenditure has substantial increase in the gross domestic GDP i.e. economic growth.
- Capital expenditure has positive effect on GDP i.e. economic growth of Nepal. The 1- point increases in capital expenditure impact on GDP by 10.203 times. The R- square value is 0.784, it means that 78.4 percent GDP is described by capital expenditure; the other variation is described by other independent factors. The value of Durbin Watson test is 1.015; it shows that, in the model, there really is no autocorrelation. Therefore, the conclusion from the analysis is that the capital spending has a large beneficial influence on GDP, or economic expansion.
- Overall expenditure has a favorable effect on GDP. i.e. economic development of Nepal. The 1- point increases in total expenditure impact on GDP by 1.314 times. P-Value is 0.000, remarkable on significance level 1 %, 5 % and 10 %. The R- square value is 0.84, it means that 84 percent GDP is explained by same total expenditure. The value of DW test is 1.256. It demonstrates that now the model does not include any autocorrelation. Consequently, the analysis's conclusion is that, the same total expenditure has insignificant positive impact on gross domestic product i.e. economic growth.
- Borrowings have the positive impact on GDP i.e. economic growth of Nepal. The 1-point increases in borrowings impact on GDP by 6.023 times. The R- square value is 0.685, it means that 68.5 percent GDP is explained by borrowings; the other variation is described by other independent factors. The value of DW test is 1.33; It demonstrates that the model does not include any autocorrelation. Therefore, the conclusion from the analysis is that, the borrowings have significant positive impact on GDP i.e. economic growth of Nepal.

CHAPTER V

DISCUSSION, CONCLUSION AND IMPLICATION

This section describes the outcomes of the data analysis, the conclusions that may be made, and any possible implications of the findings. The chapter has been divided into three segments. The first segment is driven towards discussing which involves comparison of the findings of this study and to give answer for the research question to meet the objective of the research. Likewise, the conclusion is drawn in the second segment from the result obtained from the data analysis inferred in the study whereas an implication of the study is in the third segment.

5.1 Discussion

The study's overarching goal is to determine the factors that influence government spending and economic expansion of Nepal. Number of hypotheses has examined the relationship of different variables that could affect the repayment performance in Nepal.

Ogwuru (2016) stated that nation spending has a positive effect on Nigeria's macroeconomic stability Komain and Brahmasrene (2016) found the connection among Thai federal spending and development of economy using the Granger causality. The findings revealed that in the long run, public spending and economic expansion do not go hand in hand. The results showed that there was just a one-way link, with growth being caused by government expenditure.

For just a group of 30 OECD countries, Olugbenga and Owoye (2016) looked at the relationships between fiscal policy and economic growth between 1970 and 2005.

They discovered a long-term spending by the government and economic growth. Furthermore, In 16 of the nations examined, the authors discovered a one-way causal connection among government spending and growth, confirming the Keynesian theory.

1976 to 2010, Mehmood and Sadiq (2010) looked at the connection among government expenditure and Pakistan's poverty level. The analysis discovered a link among both Pakistan's poverty rate and government spending that is unfavorable using an Autoregressive Distributed Lag (ARDL) technique. The link between government spending and poverty levels in Iran's Sistan and Baluchestan Province from 1978 to

2008 was examined by Nazar and Mahmoud (2015). The study found that although government capital spending has a negative effect on poverty reduction, constructive expenditures have a positive impact. This was determined using an Autoregressive Distributed Lag (ARDL) approach.

Keho (2011) analyzed relationship, between public expenditure and macroeconomic factor in Cote d'Ivoire. Results of the study show that, with the exception of GDP, all variables are long-term co-integrated. All variables have a positive link with macroeconomic growth. Akram (2011) investigated the government spending on Pakistan's economy by using autoregressive distributed lag (ARDL) technique. According to the research, government spending has a detrimental impact on unemployment and thus, economic growth.

In Jordan from 2004 to 2011, Al-Khasawnehet al. (2012) looked at the correlation between government spending and rates of economic growth. They employed the ARDL method to express the relationship between economic growth and fiscal policy. The dependent variable used was GDP and the explanatory variables were government spending, government revenues and terms of trade. The study found that there was a significant positive relationship between GDP and government spending.

The study discovered a negative connection between government expenditure on agriculture both now and in the future. Statistically, in the near run, a 1% increase in government expenditure on agriculture decreases GDP by 8%. In general, the study found that federal spending on infrastructure and human capital both long-term and short-term positive effects on growth in the economy but agriculture expenditure had the reverse impact (Tsadiku, 2012).

Estache and Garsous (2012) investigated how much government spending on infrastructure can contribute directly and indirectly to job creation in developing economies. Kabadayi et al. (2012) used the panel (ARDL) design to study the effect of export on economic growth in 19 countries with economies transaction. It was discovered that exports and economic openness both have long-term positive implications on growth in the economy.

Between 1995 and 2009, Authors Mohammadi and Maleki (2012) looked into how the mix of government spending affected the economic progress of ECO member nations.

The results showed that while state spending on military and education has a positive influence on economic development, expenditure on health care has a statistically negative effect on the economic development of ECO countries.

Genius et al. (2015) utilized VECM to analyze yearly time series data from 1980 to 2010 to assess how South Africa's fiscal policy aggregates affected unemployment.

Etale and Ayunku (2015) studied how government expenditures affected agriculture on unemployment reduction; it had no effect. According to a research, taxes and government recurrent spending both have a beneficial effect on unemployment, but government capital spending has the opposite effect.

5.2 Conclusion

The motive of this study was to determine the relationship between government spending and economic expansion of Nepal. For the study, secondary data were gathered from several sources. The factors that were identified as the explanatory variable were recurrent expenditure, capital expenditure, total expenditure and borrowings. These all variables were examined and compared with dependent variables of GDP as the indicator of economic growth of Nepal.

The trend of GDP shows that highest growth rate achieve in the fiscal year 2008 and lowest growth rate in the fiscal year 2018. Similarly, the recurrent expenditure has highest growth rate achieve in the fiscal year 2017 and lowest growth rate in the fiscal year 2019. Likewise, capital expenditure has highest growth rate achieve in the fiscal year 2017 and lowest growth rate in the fiscal year 2012. On the other hand, the total expenditure has highest growth rate achieve in the fiscal year 2017 and lowest growth rate in the fiscal year 2020. Finally, the borrowings highest growth rate achieve in the fiscal year 2012 and lowest growth rate in the fiscal year 2018.

Considering all the variables, i.e. recurrent expenditure, capital expenditure, total expenditure and borrowings have the significance impact on gross domestic product i.e. economic growth of Nepal. Therefore, these explanatory variables play an important role in analyzing gross domestic product i.e. economic growth of Nepal. There are no independent factors with an insignificant effect on the GDP. i.e. economic growth of Nepal.

Similarly, considering all the variables, i.e. Recurrent expenditure, capital expenditure, total expenditures and borrowings have the significance positive relationship on group default i.e. gross domestic product i.e. economic growth of Nepal at the significant level of 1%, 5% and 10%. Therefore, these explanatory variables play an important role in the performance of gross domestic product i.e. economic growth of Nepal.

Finally, all the explanatory variables taken into the study i.e. recurrent expenditure, capital expenditure, total expenditure and borrowings have significant impact with the gross domestic product i.e. economic growth of Nepal.

5.3 Implication

The result of the study may have some valuable implication for the scholars and policy makers. Various research has been done about the government expenditure and economic growth in case of other countries but very few in the context of Nepal but Nepal lacks the research. The research provides the insight about the factors that should be considered for policy making. As a result, this study sheds light on how government spending has affected Nepal's economic development. Additionally, it offers insight into the variables that should be taken into account while formulating policy.

The study also gives the valuable suggestions to the researchers, to think about the variables that are to be taken for the study. Because, some variables used for the study may not have any implication.

This study also adds literature on the contribution of government expenditure to Nepalese economy. It gives a significant contribution to the existing debate on the impact of government expenditure in the economic growth of the country, upcoming studies will be benefitted from this study.

This research provides supporting roles for upcoming research that may be done by choosing more financial organizations, such as development banks and finance businesses as well as government and government agencies to grab more evidence about the influence of government spending on Nepal's economic expansion.

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Appendices

Fiscal Year Mid-July	RE %	CE%	TE%	Borrowing%	GDP%
2000	11.49	10.82	11.23	11.00	16.35
2001	26.32	11.09	20.46	-36.85	4.06
2002	7.32	-12.49	0.30	59.39	7.14
2003	11.49	-9.75	4.91	32.40	9.04
2004	7.62	3.31	6.47	51.19	9.81
2005	13.37	18.38	14.67	14.55	10.97
2006	8.06	8.29	8.12	-10.14	11.27
2007	15.49	34.19	20.48	62.43	12.07
2008	14.87	34.70	20.77	12.59	21.16
2009	35.92	36.57	36.14	8.13	20.69
2010	15.61	23.46	18.22	-47.71	14.60
2011	10.66	19.51	13.74	4.94	11.73
2012	26.00	-57.86	8.29	112.30	10.98
2013	3.12	12.67	12.25	106.90	15.90
2014	21.71	19.84	16.27	0.64	8.43
2015	12.92	32.06	21.98	63.86	5.77
2016	8.84	42.76	14.24	-33.42	17.28
2017	40.94	72.20	40.23	101.95	13.80
2018	35.00	32.31	30.71	-83.05	1.25
2019	2.68	-11.85	0.10	72.73	13.59
2020	8.67	13.74	-2.74	97.40	8.91