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An Analysis of the Existence of Political Business Cycle in Nepal

Tej Prasad Devkota[1]

Abstract

This paper tries to analyze whether the 'Political Business Cycle (PBC)' exists in Nepal or not. The term PBC is coined to describe the fluctuation in economic activities from the intervention of the political actors before the election expecting to be re-elected in the forthcoming election. The abuse of political power in manipulating fiscal and monetary policies by the ruling party prior to the election period has become normal in developing countries like Nepal. The incumbent tries to convince their voters by increasing the size of the populist public expenditure before or during the election period. Nepal can't be exceptional in the case of public resource manipulation during the time of the election. Democracy was restored in Nepal after the people's political movement of 1990 and after that six consequent general elections were completed. The study used the annual data set from 1990/91 to 2017/18 and employed the ordinary least square method in three different models to capture the relationship among the variables used in the study. Real GDP, government consumption expenditure, and fiscal deficit are used as dependent variables of each model whereas government capital expenditure, transfer payment, subsidy, and total tax revenue are taken as independent variables under the study along with introducing election as a dummy variable. The results showed a positive relationship between the variables, but not enough to confirm the opportunistic political business cycle. The study recommends policymakers ensure policy consistency considering non-intervention in fiscal policies at the time of election.

Keywords: *Political business cycle, Economic growth, Fiscal policies, Capital expenditure, Tax-revenue.*

JEL Classification: *D72*, F43, *E62, E22, H20*

Introduction

Political business cycles (PBC) are the economic cycles that occur in macroeconomic variables such as income, output, unemployment, inflation, etc. that are caused by the electoral cycle (Iddrisu & Bokpin, 2018). The PBC is the hypothesized tendency of government to adopt expansionary fiscal and

[1]**Mr. Devkota** is a Deputy Executive Director at Securities Board of Nepal (SEBoN), Kathmandu, Nepal. Email: tej.devkota@gmail.com; ORCID: https://orcid.org/0000-0001-8531-6984

monetary policies in election years. Some comprehensive empirical studies have found the evidence that the political budget cycle is present in both developed and less developed countries, but developing countries are thought to be more susceptible to the political business cycle than advanced countries (Jaffrey, 2010). Every elected official wants to maximize the chance of re-election. As a result, they pursue policies that are re-election maximizers. Thus, the election of the politicians and political parties may depend on the economic performance of the incumbent government (Mohammed & Iddrisu, 2019).

While voters are assumed to have adaptive expectations in traditional PBC theories, they are accepted as being rational in rational PBC theory. Another model is 'Opportunistic' or 'Partisan' in which it is assumed that the single aim of the governing parties is accepted as equally formed. It is to apply policies that would maximize their chances of winning the elections. In partisan models, the governing parties are not similar, but they are at different ends of the ideological spectrum at the right and left wings (Alesina & Roubini, 1990; Alesina et al., 1991).

Political instability is a major problem resulting in an unstable and frequently changing government. Nepal is facing inconsistencies in fiscal and monetary policies. Huge political fluctuations are deteriorating the economic and business environment in Nepal. In this regard, it is relevant to examine the causes of unstable economic policy and whether the PBC exists in Nepal or not. After the restoration of democracy in 1990, the first general election held in 1991 and the first constituent assembly held in 2008 were milestones for the democratic setting of Nepal. The basic information of elections is presented in table 1.

Table 1: Election Dates

Elections	Elected Members	Election Date in A. D. (B.S.)
General Election	205	12th May, 1991 (29th Baisakh, 2048)
Mid-term Election	205	15th Nov, 1994 (29th Kartik, 2051)
General Election	205	3rd & 7th May, 1999 (30th Baisakh, 2056)
First Election of Constituent Assembly	240	10th April, 2008 (29th Chaitra, 2064)
Second Election of Constituent Assembly	240	19th Nov, 2013 (4th Marg, 2070)
General Election	165	26th Nov & 7th Dec, 2017 (10th & 21th Marg, 2074)

Source: https://election.gov.np.

Statement of the Problem

After the restoration of democracy in 1990, Nepal adopted a multiparty democratic system aiming to foster economic development by addressing people's aspirations. Again, the people's movement of 2005 declared Nepal as a 'Federal Democratic Republic Nepal'. On a long way to democracy, the country witnessed various movements including a decade-long Maoist movement. There is a change in the political system in Nepal, but there are no remarkable changes in the status of the people's life. To be elected or re-elected in the election, the tendency to misuse the national resources by the incumbent has become a general phenomenon to influence the public or voters. Politics is becoming a power game using money and mussels as contemporary issues in developing countries like Nepal. The government set the rules of the game (Pastor & Veronesi, 2012). Fiscal deficit increases in the election year and the existence of a political budget cycle in both developed and developing countries (Shi & Svensson, 2006). Through the fiscal policy, the ruling party makes various changes in the law in a Westminster parliamentary system which affects the operation of the private sector. In developing countries like Nepal, incumbents tend to allocate a significant budget in election years. But, due to the poor capacity for utilization of capital expenditure, the efficient enforcement of fiscal policy is always questionable in Nepal. However, the study attempts to answer the following research questions:

- How does the election affect on real GDP of Nepal?
- How does the government consumption expenditure higher in the election year in Nepal?
- Is the government budget deficit higher in the election year in Nepal?

Objectives and Hypothesis of the Study

The general objective of the study is to examine the existence of the political business cycle in Nepal. However, the specific objective of the study is to analyze whether the political business cycle exists in Nepal or not. The study presumes that RGDP, government consumption expenditure, and government budget deficit are higher in the election year.

Significance of the Study

Political instability is one of the characteristics of the Nepalese political system that has become a major problem of Nepalese politics. After the successful completion of the three-tier election, Nepal is in the execution of federalism. There are one central government, seven provincial governments, and 753 local governments that have implemented their fiscal policies in the last five fiscal years but there are still inconsistencies in policies due to political ideologies. None of the government has completed their five years tenure in the last three decades. In this regard, the significance of the study is to analyze the existence of PBC in the economy of Nepal. The study will be a milestone as there is no empirical study

for the existence of the PBC to date. It will contribute to prioritizing a need-based approach rather than interest-based intervention by the incumbent while making fiscal policies. The study will suggest that policymakers should check the utilization of public resources and support policy continuation.

Review of Literature

Theoretical Review

The study basically reviewed two main theories of PBC as given below:

Opportunist Political Business Cycle Theory

Nordhaus (1975) propounded the 'Opportunist Political Business Cycle Model'. The model asserts that incumbent governments tailor politics to maximize their popularity and their re-election chances. They try to stimulate the economy before the elections with expansionary monetary policies to take advantage of the short-run Phillips curve on output and employment. The model assumes that voters have adaptive expectations, i.e., they base their voting decision largely on the recent performance of governments (Schuknecht, 1996). In this model, politicians are characterized as the policy influencer of the government policies, seeking to secure their office, in the election competition. When there is election time, the incumbent intends to boost the economy by introducing expansionary policies, which is characterized as an opportunist model. Rogoff and Siebert (1988) expanded the opportunist model. They focused on the fiscal manipulation by the incumbent before the election period. They explored that the greater incumbent can increase public expenditure close to or during the election, increasing its chances to win the election. The model concludes that the incumbent tries to manipulate fiscal and monetary policies before election times by adopting expansionary policies. They tried to convince the voters by increasing public expenditure to vote for them. Thus, the incumbent always seeks to be re-elected and manipulative policies before elections are general in nature.

Partisan Political Business Cycle Theory

Hibbs (1977) propounded the 'Partisan Political Business Cycle Model'. The model asserts that there exists political competition among the politicians seeking to maximize their chances of re-election, with an ideological perspective. There is an ideological identification between the parties. The model assumes that unemployment tends to be lower and inflation higher during the term of a left-wing government whereas it is the opposite during the term of a right-wing government, (Enu & Okonkwo, 2015). The main tenet of this model is that there should be a difference between left-wing and right-wing governments in the policies adopted at the time of elections. Tarawaile (2011) explored that the ruling party pursues its ideology and the electorates are assumed to be

rational or super-rational with forecasts based on information. The ruling party is competent and has control over policy instruments that are deployed to achieve policy targets, shocks to the economy are from internal and external sources. The model predicts that there will be no politically induced cycles since popularity follows a random walk. The partisan effects after elections won by the right wing include temporarily lower-than-normal unemployment rates and temporarily higher-than-normal growth rates. The opposite outcomes result when the left wings are the electoral victors. Inflation is permanently higher when the left is in office than when the right is in office. According to the partisan explanation of the economic policy, parties of the left favor more state intervention, income redistribution, and expansionary fiscal policies than the parties of the right.

Empirical Review

Nordhaus (1975) explored the existence of the political business cycle (PBC) in the organization of economic cooperation and development (OECD) countries and concluded that, with active monetary expansion, inflation and unemployment trended accordingly with the election period causing fluctuations before and after elections. The object of traditional social welfare is to transfer money to society and such decisions are taken by politicians. The 'Chicago School' of political economy views that higher political competition leads politicians to make such transfers efficiently (Coate & Morris, 1995). The budget, which is presented annually by the government through fiscal policy, determines how the fund is transferred to the economy as well as how the fund is collected from the economy. Regarding fiscal policy, the classical economic theory focuses that the productive sector of the economy, and loanable funds is driven by the crowding-out effect whereas the Keynesian theory focuses on boosting the economy and enhancing the aggregate demand (Chatziantoniou et al, 2013).

Block (2001) examined that the political business cycle is alive in well in nascent democracies of developing Africa. The researcher employed panel data from African countries by selecting five monetary and four fiscal policy variables namely money growth, interest rates, inflation, nominal exchange rate, and, net claims on government share of GDP, and confirmed the prediction of rational opportunistic business cycle theory. The presence of the political business cycle is a widely debated issue, most often the issue is refuted. However, several studies have examined the adjustment of policy mix around the election date to manipulate the election result or to enhance their re-election prospect (Nordhaus, 1975; Akhmedov & Zhuravskaya, 2004). In the parliamentary system, the government directly or indirectly tries to influence public sentiment, particularly in the election year, there could be several surprising elements in the fiscal policy. According to the theories of the political business cycle, politicians try to manipulate policy tools to fool voters or signal their ability (Cole, 2009).

Drini and Endrit (2006) explored evidence of the attempts made by the

incumbent to manipulate the economy. The researchers employed monthly and quarterly data for the period of January 1998 to March 2007 for Albania and found that public expenditure before elections was statistically significant aiming reduction of unemployment and increase output in the economy and confirmed that the incumbent has used fiscal policy instruments to please the voters before elections.

Batool and Sieg (2009) proved that Pakistan's society suffers from politically motivated inefficient economic policies by the ruling government. The researchers have used annual data for unemployment, inflation, growth, and other macroeconomic indicators for the period 1973 to 2009. They claimed that the unemployment rate was significantly reduced during the election and one year before the election while it had been raised just election year passed. They further claimed that inflation was kept down during the election year but rose immediately after the election year and blamed the ruling party's regulated prices artificially low before the election.

Karakas (2012) explored the existence of an opportunistic political business cycle in Turkey for the period 1957-2008 and employed fiscal and monetary policy variables. The researcher found an opportunistic political business cycle supported by the government budget deficit, government expenditure, transfer payment, central bank credit, currency in circulation, and a broad money supply.

Mosley and Chiripanhura (2016) examined the incidence and impact of the African political business cycle in 51 African countries and found that the African political business cycle was not homogeneous, and occurred relatively infrequently in the so-called dominant party system. Additionally, they claimed that the composition of the pre-election stimulus in terms of its allocation between different categories of voters was as important as its size.

Bove et al. (2017) investigated political business cycles in 22 OECD (the organization for economic co-operation and Development) countries and explored three key empirical results. First, they claimed that government tends to bias outlays toward public expenditure and away from military expenditure at election times. Second is the government's tradeoff in engagement in either butter or gun in the election period is smaller for the countries involved in the conflict and thirdly, spending allocation on the two public goods (butter or gun) depends on the government's political orientation; parties of the left favor increased allocations to butter whereas parties of the right favor increased allocation on guns.

Aguirre (2019) examined the existence of the political business cycle in the USA from 1947 to 2014 with 17 presidential elections and confirmed the existence of an unequal political business cycle, i.e. a rise in policy uncertainty, and a fall in GDP around presidential elections only in the times of relatively high inequality.

Mohammed and Iddrisu (2019) evaluated both the existence of African political business cycles and their impact on human development in 38 African countries from 1990 to 2015. They confirmed the existence of the political business cycle worsening human development in Africa.

Cai and Yue (2020) examined that the degree of the redistributive effects of public transfers has much to do with the scale of social security expenditures in government budgets, which are the sources of funding for public transfers. In general, most developed countries have a larger scale of social security expenditures than developing countries.

The existing literature is enriched with a number of studies of business cycles and economic fluctuations in Nepal. Some of the studies covering business and financial cycles in Nepal examined the consequences of the economic cycles, and researchers tried to explore the link between political instability and economic growth in Nepal but, to the best of our knowledge, the study will be the first study to identify the existence of the PBC in Nepal.

Methodology and Data

Research Design and Data Sources

The study is the exploratory one by using quantitative analysis and deductive method to analyze the political business cycle in Nepal. The required data and information were obtained from secondary sources of the publications of the central bank of Nepal i.e. Nepal Rastra Bank. The study used 28 years of time series data covering from 1990 to 2018 while considering the successive six general elections that were completed. The year 1990 is considered as the restoration of democracy in Nepal placed in 1990 with the people's movement of 1990. Secondary data were used to examine the existence and effects of the political business cycle in Nepal. Data related to, the real sector, fiscal sector, and monetary sector were obtained from the central bank of Nepal and some other data are obtained from other published sources. Due to the unavailability of monthly data, the study employed annual time series data for the period of 1990/91 to 2017/18.

Tools and Method of Data Analysis

The study employed various statistical tools as per the necessity like descriptive statistics, Covariance Analysis, correlation analysis, regression analysis using ordinary least square method, R-squared, Adj. R-squared, Log-likelihood, F-statistics, mean dependent var, S.D. dependent var, Durbin - Watson test, Hannan-Quinn in order to conduct the quantitative analysis and explore the relationship among the variables. The computer software of E-views 12 is used in processing and analysis of data.

Model Specification

The study employed the following 3 theoretical models, following Enu & Okonkwo, 2015 to analyze the existence of the political business cycle in Nepal.

Model-1: GDP Expansion Model

$$\ln RGDP_t = \alpha + \beta_1 \ln GCAEt + \beta_2 ELSNt + e_t \text{ ..... (1)}$$

Model-2: Fiscal Expansion Model

$$\ln GCOE_t = \alpha + \beta_1 \ln GTPSt + \beta_2 ELSNt + e_t \text{ ..... (2)}$$

Model-3: Fiscal Deterioration Model

$$\ln GFDT_t = \alpha + \beta_1 \ln GTTRt + \beta_2 ELSNt + e_t \text{ ..... (3)}$$

Where,

$\ln RGDP_t$ = Log of real GDP at time period t,

$\ln GCAE_t$ = Log of government capital expenditure at time period t,

$\ln GCOE_t$ = Log of government consumption expenditure at time period t,

$\ln GTPS_t$ = Log of government transfer and subsidy at time period t,

$\ln GFDT_t$ = Log of government fiscal deficit at time period t,

$\ln GTTR_t$ = Log of government total tax revenue at time t,

ELSN = Election as a dummy variable,

β_0 = Constant term,

β_1 *and* β_2 = Coefficients of independent variables, and

e_t = Error term.

Variables Description

a) **Real Gross Domestic Product (RGDP):** GDP is the total market value of all final goods and services produced during a given period of time within a geographical boundary by domestically produced resources. A gross domestic product is one of several measures of the size of its economy. Real GDP is the inflationary adjusted value of GDP that is highly preferred by economists and policymakers. It is the dependent variable of the first model of the study.

b) **Government Capital Expenditure (GCAE):** The government capital expenditure is the total expenditure made by the government on infrastructure development activities like roads, hospitals, schools, buildings, and industries intending to increase the level of employment. It is a long-term investment of the government which either allows the government to generate revenue for years or improves facilities of the public goods. When there is an increase in capital expenditure, it is expected that economic growth will be higher. It is the independent variable of the first model of the study.

c) **Government Consumption Expenditure (GCOE):** Government consumption expenditure is defined as the total current expenditure of the government. It is the total purchase of goods and services by the government including the salary and compensation to the employee. It is the recurrent expenditure of the government.

d) **Government Transfer Payments and Subsidy (GTPS):-** Government transfer payment and subsidy is the proxy variable of the social security transfer provided made by the government to the people like old aged, differently abled, widows, and others. Governments in developing countries like Nepal have used social security transfers is used as a major tool for attracting voters and winning the elections. But, it imposes a burden on the national vault. It is taken as the independent variable of the second model of the study.

e) **Government Fiscal Deficit (GFDT):** The term fiscal deficit is coined to describe the difference between total revenue and total expenditure of the government in the time period 't'. It is an indication of the total borrowing of the government. Governments have limited resources but have increased their roles. They use deficit financing to fulfill the resource gap. When the government increases expenditure, they tend to increase borrowings. The fiscal deficit takes place either due to a revenue deficit or a major hike in capital expenditure. It is taken as a dependent variable of the third model of the study.

f) **Government Total Tax Revenue (GTTR):** The government total tax revenue is the revenue collection from both direct and indirect taxes which is the major source of government revenue. When there is a high volume of government expenditure during the election year, there will be a shortfall of resources as

well. Then, the government tends to increase its borrowing. It is expected that when there is a low base tax revenue, the fiscal deficit will be high. It is the independent variable of the third model of the study.

g) **Election (ELSN):** A periodic election at a time 't' is taken as a dummy variable for the given three models of the study. It is used the value of '1' in the election year and '0' in the non-election year which is expected to mark the timing of the cycle.

Data Analysis, Interpretation, and Estimation

Descriptive Statistics

Descriptive statistics describe the 'Central Tendency' and 'Measures of Spread' of a frequency distribution for a large amount of collected raw data. It helps to understand the nature of variables, their distributions, and the interpretation of data. It. The measures of central tendency include many statistical interpretations like mean, median, mode, etc., in a given set of data. The measures of spread include frequency counts, ranges (high or low) of values, standard deviation, variation, skewness, kurtosis, etc. But it does not allow for a conclusion beyond the data. Conclusions can be made only with the hypotheses of the given issues. In order to understand the behavior of data series of ln RGDP, ln GCAE, ln GCOE, ln GTPS, ln GFDT, ln GTTR, and ELSN by measuring mean, median, mode, minimum, maximum, standard deviation, skewness, and kurtosis are measured. The given descriptive statistics are based on the 28 observations of given variables as shown in the given Table 2.

Table 2: Descriptive Statistics

Variables	RGDP	GCAE	GCOE	GTPS	GFDT	GTTR	ELSN
Mean	13.335	8.338	8.645	7.045	9.464	8.733	0.214
Median	13.240	8.059	8.512	7.206	9.464	8.538	0.000
Maximum	14.929	9.946	11.151	8.861	9.907	11.096	1.000
Minimum	11.698	7.376	6.566	4.308	9.022	6.706	0.000
S. Deviation	0.942	0.732	1.251	1.230	0.626	1.237	0.418
Skewness	0.067	0.752	0.459	-0.737	0.000	0.340	1.392
Kurtosis	1.880	2.586	2.294	2.820	1.000	2.185	2.939
Jarque-Bera	1.484	2.837	1.565	2.560	0.333	1.316	9.055
Probability	0.476	0.242	0.457	0.728	0.8465	0.518	0.010
Sum	373.386	233.464	242.057	197.249	18.929	244.525	6.000
Sum Sq. Dev.	23.979	14.476	42.303	40.869	0.391	41.336	4.714
Observations	28	28	28	28	28	28	28

Source: Author's calculations.

Table 2 indicates that the averages of the variables under study are similar. It is seen that the deviations of the respective variables, under study, from their means are relatively not in too large figures. Moreover, the value of Platykurtic and Leptokurtic. Furthermore, the value of Skewness except for government transfer is positively skewed but not in so far range.

Regression Analysis and Estimation

The regression analysis shows the role of independent variables in the given dependent variable. As the study used three different models, the real gross domestic product (ln RGDP), government consumption expenditure (ln GCOE), and government fiscal deficit (ln GFDT) are taken as the dependent (response) variables for each regression model whereas government capital expenditure (ln GCAE), government transfer payment and subsidy (ln GTPS), and government total tax revenue (ln GTTR) are taken as independent (explanatory) variables in each regression model. Moreover, the study used election (ELSN) as a dummy variable in each regression model. The log-linear multiple regression model is employed in order to examine the percent change in given independent (explanatory) variables to the percent change in the dependent variable (ln RGDP) as shown in the given models.

Model 1: GDP Expansion Model

The RGDP expansion model of the political business cycle theory asserts that as the incumbent tries to manipulate government capital expenditure aiming to be re-elected, there will be expansionary fiscal and monetary policies that ultimately contribute to expansion in the RGDP. This model expects that an expansion in GCAE leads to an increase in RGDP in the election year. The model can be shown as-

$$ln\ \text{RGDP}_t = \alpha + \beta_1 ln\ GCAEt + \beta_2\ ELSNt + e_t$$

Table 3: Regression Results for Model 1: GDP Expansion Model

Variables	Coefficients	Std. Error	T-Ratio	P-value
Const.	3.488	0.856	4.075	0.000
ELSN	0.152	0.178	- 0.845	0.406
ln GCAE	1.185	0.103	11.555	0.000
R-squared	0.842	Mean Dependent VAR		3.445
Adj. R-squared	0.829	S.D. dependent VAR		0.942
Log-likelihood	- 11.701	Durbin Watson statistics		1.600
F-statistics	6.63	Hannan-Quinn		1.090
Prob. (F-statistics)	0.0000			

Source: Author's calculation.

Table 3 shows that the value of R-squared is 0.8423 implying that a total of 84.23 percent of the total variation in RGDP is explained by government capital expenditure in the election period. The P-value of the above equation is less than 1 and i.e., significant within five percent. The explanatory variable, the coefficient of ln GCAE is positive as expected. Again, if we look at the D-W statistics, it can be seen that it is greater than the R-squared, i.e., 1.6001 is > 0.8423, and it is confirmed that there is no problem of auto-correlation and thus, the model is acceptable. As well, when we look at the above table, it is clear that RGDP is explained by ln GCAE and ln ELSN has a positive relationship with RGDP but it is not significant. It is concluded that capital expenditure supports in ln RGDP and there is higher capital expenditure in the election period. The positive coefficient of ln ELSN and insignificant P-value can only be concluded that the election has a positive relationship with ln RGDP but is not enough to conclude political manipulation of capital expenditure in Nepal.

Model II: Fiscal Expansion Model

The fiscal expansion model of the political business cycle theory captures the opportunistic nature of the incumbent manipulating fiscal variables during the election. It basically focuses on fiscal outcomes. During the election period, the incumbents use spending as a fiscal policy tool and expand public goods to get favorable results from the election again. Hence, it is attempted to explore the relationship between the election (ELSN) and government consumption expenditure (GCOE). The model can be shown as –

$$ln\ GCOE_t = \alpha + \beta_1 ln\ GTPSt + \beta_2\ ELSNt + e_t$$

Table 4: Regression Analysis for Model-2: Fiscal Expansion Model

Variables	Coefficients	Std. Error	T-Ratio	P-value
Const.	3.981	1.135	3.140	0.002
ln ELSN	0.227	0.462	0.491	0.628
ln GTPS	0.654	0.15	4.162	0.000
R-squared	0.989	Mean Dependent VAR		8.685
Adjusted R-squared	0.863	S.D. dependent VAR		1.252
Log-likelihood	- 38.122	Durbin - Watson statistics		1.323
F-statistics	8.685	Hannan-quinn		2.980
Prob. (F-statistics)	0.0013			

Source: Author's calculation.

Table 4 shows that the value of R-squared is 0.989 implying that a total of 98.90 percent of the total variation in ln GTPS is explained by government consumption expenditure in the election period. The P-value of the above equation is less than 1 and i.e., significant within five percent. The explanatory variable is positive as expected. Again, if we look at the D-W statistics, it can be seen that it is greater than the R-squared, i.e., 1.323 is > 0.989, and it is confirmed that there is no problem of auto-correlation and thus, the model is acceptable. The positive coefficient of ln ELSN and insignificant P-value can only be concluded that the election has a positive relationship with GTPS but is not enough to conclude the opportunist political business cycle.

Model III: Fiscal Deterioration Model

The fiscal deterioration model of the political business cycle theory captures the opportunistic nature of the incumbent manipulating fiscal variables during the election. If focuses on the fiscal outcomes. During the election period, the incumbents use spending as a fiscal policy tool and expand public goods to get elected again. Hence, it is attempted to establish the relationship between the election (ELSN) and government fiscal deficit (GFDT).

$$ln\ GFDT_t = \alpha + \beta_1 ln\ GTTRt + \beta_2 ELSNt + e_t$$

Table 5: Regression Analysis for Model-3: Fiscal Deterioration Model

Variables	Coefficients	Std. Error	T-Ratio	P-value
Const.	3.776	8.629	- 4.366	0.000
ln ELSN	1.764	16.253	1.086	0.288
ln GTTR	0.179	0.039	4.586	0.0001
R-squared	0.946	Mean Dependent VAR		- 1050
Adj. R-squared	0.855	S.D. dependent VAR		47.123
Log likelihood	- 26.634	Durbin - Watson statistics		1.701
F-statistics	12.473	Hannan-quinn		19.280
Prob. (F-statistics)	0.0001			

Source: Author's calculation.

Table 5 shows that the value of R-squared is 0.946 implying that a total of l 94.61 percent of the total variation in ln GFDT is explained by ln GTTR in the election period. The P - value of the above equation is less than 1 and i.e., significant within five percent. The explanatory variable is positive as expected. Again, if we look at the D-W statistics, it can be seen that it is greater than the R-squared, i.e., 1.701 is > 0.946, and it is confirmed that there is no problem of autocorrelation and thus, the model is acceptable. As well, when we look at the above table, it is clear that ln ELSN has a positive relationship with the government deficit. Specifically, in any specific year, fiscal deficit is increased

by 1.764 percent. However, the correspondence P-value is 0.288 and is not statistically significant and we can't conclude that the incumbent government will spend more by taking loans for public goods in the election year. Generally, incumbents tend to spend higher in the election year but that can't significantly differ from the non-election year.

Conclusion and Recommendations

On the basis of the results of the data analysis, the ruling governments expect to re-elect and manipulated government policies to convince the voters by inducing public resources during the election period. The empirical results found here suggest that there are positive relationships between elections and fiscal policy manipulations. As per the results of the first model, the dependent variable of ln RGDP is well explained by the independent variable of ln GCAE. There is a positive relationship between both ln RGDP and the dummy variable i.e. election. But, the capital expenditure is not enough to follow a populist business cycle trend. The well-accepted value of R-squared justified that the majority of the variation in ln RGDP is explained by the variations in the government capital expenditure.

Similarly, in the second model, government consumption expenditure is well described by the transfer payment and subsidies and also the election dummy but it is difficult to conclude that the transfer payment and subsidy in the election year are more significant than in the non-election year. Moreover, in the third model, it is observed that there is a positive relationship between government total tax revenue and government fiscal deficit as well as the election dummy variable.

It also shows government's fiscal deficit will rise in the election period and the government will spend more in the election year. But it is still not enough to qualify that there exists an opportunistic political business cycle, as the p-value of the corresponding variables is not significant. The empirical results found from the study are unable to justify a political business cycle in the case of Nepal even though there is an association between the selected variables.

The policymakers should aware that the incumbent can manipulate fiscal and monetary policies to influence the voters in the election. Therefore, policymakers should ensure fiscal discipline. The study used annual data and which may not able to capture the cycles in the economy, thus quarterly data can be used to improve the findings as well, other monetary variables can be used simultaneously to examine the effects of the political business cycle comparing fiscal and monetary policy instruments.

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Appendix I

Data Related to the Concerned Variables of the Study

Years	RGDP	GCAE	GCOE	GTPS	GFDT	GTTR	ELED
1990/91	120370.0	1597.95	710.63	74.26	- 1065.51	817.63	1
1991/92	149487.0	1651.28	990.24	99.90	- 1126.17	987.56	0
1992/93	171492.0	1941.36	1146.01	126.93	- 1195.60	1166.25	0
1993/94	199272.0	2118.82	1239.32	135.28	- 1162.30	1537.15	0
1994/95	219175.0	1979.49	1924.87	444.16	- 1054.77	1966	1
1995/96	248913.0	2498.05	2153.39	537.50	- 1382.42	2166.8	0
1996/97	280513.0	2654.26	2436.11	590.91	- 1436.19	2442.43	0
1997/98	300845.0	2894.39	2738.30	699.33	- 1777.78	2593.98	0
1998/99	342036.0	2853.13	3124.59	737.69	- 1799.14	2875.29	0
1999/00	379488.0	3174.92	3084.23	832.79	- 1766.70	3315.21	1
2000/01	441,519	3706.59	3866.82	1088.22	- 2418.81	3886.50	0
2001/02	459,443	3148.22	5211.45	1695.31	- 2294.06	3933.06	0
2002/03	492,231	2235.61	5248.76	1888.69	- 1643.72	4089.60	0
2003/04	536,749	2309.56	5832.39	2080.85	- 1582.82	4817.30	0
2004/05	589,412	2734.07	6427.20	2320.88	- 1804.65	5410.47	0
2005/06	654,084	2960.66	7000.41	2538.26	- 2477.96	5743.04	0
2006/07	727,827	3972.99	2949.76	2949.76	- 3009.17	7112.67	0
2007/08	815,658	5351.62	3507.32	3507.32	- 3340.67	8515.55	0
2008/09	988,272	7308.90	4743.79	4743.79	- 4980.47	11705.19	1
2009/10	1,192,774	9,023.77	6239.47	6239.47	- 4119.74	10049.44	0
2010/11	1,366,954	10815.32	7,054.17	7,054.17	- 4962.22	11009.35	0
2011/12	1,527,344	5139.07	24346.00	1034.47	- 1320.00	12952.20	0
2012/13	1,695,011	5459.84	24745.55	1159.50	- 3112.00	25921.49	0
2013/14	1,964,540	6669.47	30353.17	1229.77	-2609.01	31244.13	1
2014/15	2,130,150	8884.35	33940.76	1477.63	- 2008.01	35595.57	0
2015/16	2,253,163	12325.14	37129.71	1990.54	- 2316.80	42109.66	0
2016/17	2,674,493	20874.83	51861.61	3800.33	8283.44	55386.65	0
2017/18	3,044,927	20874.83	69691.96	3930.71	20067.73	65949.15	1

Source: www.nrb.org.np

Appendix II

Log Data Related to the Concerned Variables of the Study

Years	ln RGDP	ln GCAE	ln GCOE	ln GTPS	ln GFDT	ln GTTR	ELED
1990/91	11.6983	7.3765	6.5662	4.3076	8.2728	6.7064	1
1991/92	11.915	7.4093	6.8979	4.6042	8.2570	6.8952	0
1992/93	12.0522	7.5711	7.0440	4.8436	8.2390	7.0615	0
1993/94	12.2024	7.6587	7.1223	4.9073	8.2479	7.3377	0
1994/95	12.2977	7.5906	7.5626	6.0962	8.2756	7.5838	1
1995/96	12.4249	7.8233	7.6748	6.2870	8.1884	7.6810	0
1996/97	12.5444	7.8839	7.7982	6.3817	8.1734	7.8007	0
1997/98	12.6144	7.9705	7.9151	6.5501	8.0721	7.8609	0
1998/99	12.7477	7.9562	8.0471	6.6035	8.0653	7.9639	0
1999/00	12.8466	8.0630	8.0341	6.7248	8.0755	8.1063	1
2000/01	12.9978	8.2179	8.2602	6.9923	7.8488	8.2653	0
2001/02	13.0378	8.0546	8.5586	7.4356	7.8963	8.2772	0
2002/03	13.1068	7.7123	8.5657	7.5436	8.1131	8.3162	0
2003/04	13.1933	7.7449	8.6712	7.6405	8.1311	8.4800	0
2004/05	13.2879	7.9135	8.7683	7.7497	8.0636	8.5961	0
2005/06	13.3919	7.9932	8.8537	7.8392	7.8254	8.6557	0
2006/07	13.4987	8.2873	7.9895	7.9895	7.5869	8.8696	0
2007/08	13.6126	8.5852	8.1626	8.1626	7.4029	9.0496	0
2008/09	13.8038	8.8969	8.4646	8.4646	0	9.3678	1
2009/10	13.9928	9.1076	8.7387	8.7387	6.7789	9.2153	0
2010/11	14.1281	9.2887	8.8614	8.8614	2.9575	9.3065	0
2011/12	14.239	8.5446	10.1001	6.9416	8.2056	9.4690	0
2012/13	14.3432	8.6052	10.1164	7.0557	7.5334	10.1628	0
2013/14	14.4908	8.8053	10.3207	7.1146	7.7717	10.3496	1
2014/15	14.5717	9.0920	10.4324	7.2982	7.9975	10.4800	0
2015/16	14.6288	9.4194	10.5222	7.5962	7.8878	10.6480	0
2016/17	14.7993	9.9463	10.8563	8.2428	9.4929	10.9221	0
2017/18	14.9299	9.9463	11.1518	8.2766	10.1286	11.0966	1

Source: Author's calculation using E-views 12.