Role of Banks in Bhutanese Economy

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Key words:

GDP, economic growth, real interest rate, BoBL, BNBL, Trade, Gross Domestic Savings

Abstract

This study analyses the role of commercial banks in the Bhutanese economy with data collected from the banks of Bhutan from 2001 to 2020. The statistical analysis is conducted using correlation and regression. The empirical analysis shows that the banking factors such as domestic credit to private sectors, Gross Domestic Savings, trade, Gross National Income and real interest rate are indeed crucial variables in determining the level of Gross Domestic Product (GDP) of the economy. GDP in turn plays a vital role in determining the level of economic growth. These banking factors are positively correlated with the GDP which in-turn affects the economic growth. The study recognises the need for the banks to properly channelise their funds to various sectors through investments, credit and loans to boost and accelerate the economic growth.

Introduction

Since its establishment, the Royal Monetary Authority (RMA) of Bhutan has served as the Central Bank of Bhutan. It has played the critical role of promoting sound practices and good governance in the financial services industry besides issuing currency and holding the government's foreign exchange earnings.

Bank of Bhutan (BOB) is the oldest and the largest commercial bank in Bhutan with a total network of 47 branch offices spread across the country. It was established by a Royal Charter in May 1968 (Bank of Bhutan Limited, 2022). Since then, four more financial institutions were established. They are Bhutan National Bank limited (BNB), Druk Punjab Bank Limited (DPNB), Tashi Bank Limited (T-Bank) and Bhutan Development Bank Limited (BDBL).

Bhutan National Bank Limited (BNB) was established on 25th July, 1980 as Unit Trust of Bhutan with an initial funding of Nu. 2.5 million by the Royal Insurance Corporation of Bhutan (RICB). With only one commercial bank catering to the growing economy of the country, the need to establish more financial institutions was recognized. Thus, the Unit Trust of Bhutan was upgraded into a commercial bank with assistance from the Asian Development Bank (Bhutan National Bank Limited, 2022). T-Bank Ltd was established as a fourth commercial bank on 10th March 2010 to cater to businesses in the country licensed by the Royal Monetary Authority of Bhutan (RMA). Bhutan had its first joint venture bank with 51% share held by Punjab National Bank in India, 19% by the Bhutanese promoters and 30% by the public. The PNB is the first Foreign Direct Investment (FDI) bank in Bhutan incorporated under the Companies Act of the Kingdom of Bhutan 2008. BDFCL also began to operate as a commercial bank from 2010 and it was renamed as Bhutan Development Bank (Bank of Bhutan Limited, 2022).

Banks in Bhutan have contributed towards the economic growth of the country. The primary role of a bank is to enhance proper and effective mobilization and channelisation of funds. They are not only induced by profit but they also fill up the gap between saving and investment. Consequently, the commencement of banking sectors in Bhutan instilled saving and investment habits amongst the population which became a source of finance for many financial institutions, thereby contributing towards economic growth of Bhutan.

Therefore, the issue of activating the services of commercial banks in the investment market is essential. It is necessary and important to understand the role of banks in economic growth as the success and failure of any economy is correlated with the performance of its banks. Thus, this study aims to explore the relation between banks and economic growth using twenty years of bank data spanning from 2001 to 2020.

This study will mainly assess the contribution of banks to the economic growth of Bhutan. It will also identify the most prominent banking factor that contributes to the economic growth of a country.

Significance of the Study

The findings of this study will contribute to the existing body of knowledge. It will give insights into the trends of Bhutanese economic growth. It will particularly inform the banking sector on their role and contributions to the economic growth of Bhutan.

Limitations

This study uses only five banking variables while there are many. Further, the analysis does not offer an in-depth perspective on banking by banking officials. The study is based on secondary data.

Literature Review

The study by Abusharbeh (2017) illustrated the role of banking sectors of Palestine in the economic growth of the country. The study was done for a period of 5 years (2000-2015). Least square model and regression analysis was used to examine the contribution of banking sector towards the economic growth of the Palestinians. The study findings show that banking credits played an important role in the economic growth of Palestine.

The findings of Abusharbeh (2017) align with the findings of the study conducted by Alfara (2012). This study also focuses on the contribution of banks in the economic growth of Palestine. Alfara (2012) also added that banking credit to public has a significant impact on the economic development of the country.

Similarly, Zavadska (2018) studied the role of banks in the economic growth of Ukraine. The author concluded by stating that banks and financial institutions play a significant role in money supply, economic growth, and recovery from a country's crisis.

Naumovska et al. (2015) examined the relationship between banking sector intermediation and economic growth in Macedonia. The study highlighted the prevalence of long-term relationship among the functions of the banking sector and economic growth. Naumovska et al. (2015) recommended the banks of Macedonia to improve investment activities and participate in supporting the creation of new values based on entrepreneurial initiatives.

The study by Tenant et. al. (2010), used co-integration and error correction methods to distinguish the long-term and short-term effects of the financial sector on Jamaica's economic growth. The study concludes that the functions of the financial sector have a long-term significant impact on GDP. Furthermore, the author recommended paying more attention on the enhancing mechanism to maximize saving mobilisation and to facilitate allocation of resources.

Bongini et al. (2017) conducted a study on the role of financial development in economic growth of Central, Eastern and Southern-Eastern European countries from the post-communist era up to the period of the global financial crisis and from 1995 to 2014. The study examined the benefits gained from foreign owned banks and concluded that foreign-owned banks are indisputably a positive addition to local markets and that they foster economic growth.

Tirpathy and Pradhan (2014) investigated the long term relationship and causality between Indian banking sector and economic development. A new set of data covering a study period of 52 years (1960-2011) was used. They also used the data of banking sector development indicators. The study concluded that there are reasonable evidences that banking sector development advanced economic growth in the Indian economy.

Krishnankutty (2011) used panel data for Northeast India from 1999 to 2007 to verify the impact of credit facilities provided by the financial institutions on the living standards of the people in Northeast India. The study findings showed that the bank credit facilities in the rural segment had positive influence on economic growth. The author also concluded that bank credits have minimal impact towards economic growth but has potential to contribute to economic development.

Chakraborty (2010) studied the financial sector reforms and its impact on the Indian economy during the post-reform period. The study was conducted using quarterly data for the period of 1993-2005. The study concluded that though the development of the stock market had no significance on economic growth, the market rate of interest which was introduced in Indian bank reforms stimulated the economic growth.

Numerous studies conclude that banks play an important role in the economic growth of a country. However, there are also several studies that state that banks do not contribute significantly to the economic growth of a country. The study by Awdeh (2012) is one example. This study examined the relationship between economic growth and financial development in Lebanon for the period of 1992-2011. The study used Granger causality tests and found interconnection between the economic growth and financial indicators such as deposits and banking credits to private sectors. However, the result of the test showed that the banking sector does not support economic growth. Furthermore, the regression analysis confirmed that financial indicators have no significant impact on economic accomplishments in Lebanon. The findings of the study also align with the study by Miwa and Ramseyer (2002), Demetriades and Hussein (1996) and Petkovski and Kjosevski (2014).

While few studies conclude that banks did not contribute to the economic growth, most of the studies acknowledge that banks contribute significantly to the economic growth and that there is a relationship between the role of bank and the economic growth.

Hypothesis

Based on the literature review, this study will apply the following hypothesis:

H_{0a}: Gross Domestic savings has no significant impact on the economic growth of the country.
H_{0b}: Trade has no significant impact on the economic growth of Bhutan.
H_{0c}: Rate of interest has no significant impact on the economic growth of Bhutan.
H_{0d}: Domestic credit to private banks has no significant impact on the economic growth of Bhutan.
H_{0e}: Gross National Income has no significant impact on the economic growth of Bhutan.

Research Design

Hypothesis testing research design is used in this study. For hypothesis testing, the following model is designed:

$GDP = a + b_1 Credit + b_2 GDS + b_3 Trade + b_4 RIR + b_5 \blacktriangle GNI + e$ Where:
GDP is the dependent variable 'a' is constant
Credit (Domestic credit to private sectors by banks (% of GDP)), GDS (Gross domestic savings (% of GDP)), Trade, RIR (Real interest rate), and ▲GNI (GNI growth (annual %)) are the independent variables.
'b_1, b_2, b_3, b_4, and b_5 are the coefficient of independent variables. 'e' is the error term

Sampling

Five of the six banks currently operating in the Bhutanese economy are considered for the sample of this study. National CSI bank is not included in this study since it has been operating only for a year.

Data Analysis

Data for this study is from secondary sources mainly from World Development Indicators (The World Bank, 2022). The study used data collected through a study period of 20 years (2001-2020).

Correlation and regression analysis is used for identifying the banking variables which has significant impact on the economic growth of the country. In this context, Gross Domestic Product (GDP) is used as a dependent variable and Domestic credit to private sectors by banks, Gross Domestic Savings,[1] Trade,[2] Gross National Income[3] and Real Interest Rate[4] are used as independent variables.

[1]Gross Domestic Saving is GDP minus final consumption expenditure. It is expressed as a percentage of GDP.

Banks have been a part of economic development for decades. It has the potential to be a significant force for reducing global poverty by spurring economic growth, creating jobs, reducing prices, and helping countries acquire new technologies. Within this context, the results of correlation and regression analysis showed that banks in Bhutan are playing a crucial role and contributing to the economic growth by mobilizing small and scattered savings of the community and disbursing those as loans among individuals and organisations.

Table 1.

Correlation Matrix

		▲ GNI	**Credit**	**GDS**	**Trade**	**RIR**
▲ GNI	Pearson Correlation	1				
	Sig. (2-tailed)					
Credit	Pearson Correlation	-.603**	1			
	Sig. (2-tailed)	0.005				
GDS	Pearson Correlation	0.285	-0.344	1		
	Sig. (2-tailed)	0.223	0.137			
Trade	Pearson Correlation	0.371	-0.109	0.290	1	
	Sig. (2-tailed)	0.107	0.647	0.215		
RIR	Pearson Correlation	0.282	-0.204	-0.428	-0.453*	1
	Sig. (2-tailed)	0.228	0.389	0.060	0.045	

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

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

Source: Author's Calculation

Table 1 presents the correlation matrix of independent variables used in this study. The study is conducted at 5% level of significance. The analysis shows that the GNI growth (annual %) is negatively significant (-0.603) with domestic credit to private sector by banks (% of GDP) at 1% level of significance (sig. value: 0.005). Similarly, Trade was also negatively significant (-0.453) with real interest rate at 5% level of significance (sig. value: 0.045). There were no other variables which were significant at 5% level of significance apart from those mentioned above.

Table 2.

Coefficient Table

	Unstandardized Coefficients		**t**	**Sig.**	**Collinearity Statistics**	
	B	**Std. Error**			**Tolerance**	**VIF**
(Constant)	-5.114	3.903	-1.310	0.211		
Credit	0.019	0.017	1.082	0.297	0.572	1.750
GDS	0.107	0.048	2.255	0.041	0.563	1.776
Trade	-0.003	0.022	-0.122	0.905	0.495	2.021
RIR	0.111	0.168	0.665	0.517	0.384	2.605
▲GNI	1.124	0.086	13.009	0.000	0.374	2.675

Source: Author's Calculation

[2]Trade is referred to as exchange of goods and services between different regions and nations.

[3]It is the sum of final prices of the goods and services produced in an economy in a specified period frame.

[4]It is defined as the interest that is calculated after adjusting or removing inflation from the nominal interest rate.

Table 2 presents the summary of regression analysis. GDP was used as a dependent variable and Domestic credit to private sector by banks (% of GDP), Gross domestic savings (% of GDP), Trade, Real interest rate, and GNI growth (annual %) were used as independent variables. Out of five independent variables used in the study, two variables are statistically significant at 5% level of significance. GNI growth (annual %) was positively significant at t=13.009 and sig=0.000. Similarly, Gross domestic savings (% of GDP) is also positively significant at t=2.255 and sig=0.041. This shows that, an increase in GNI growth (annual %) and Gross domestic savings (% of GDP) will increase the GDP of Bhutan thereby increasing the economic growth of the country. The following regression model is formed after analysing the data.

$$GDP = -5.114 + 0.107GDS + 1.124 \blacktriangle GNI$$

The model developed in this study would help in estimating the GDP growth of Bhutan. It will also help in understanding the relationship between the variables selected for this study with the GDP of Bhutan. For example, Trade as seen in the model above has a negative impact on the GDP of Bhutan.

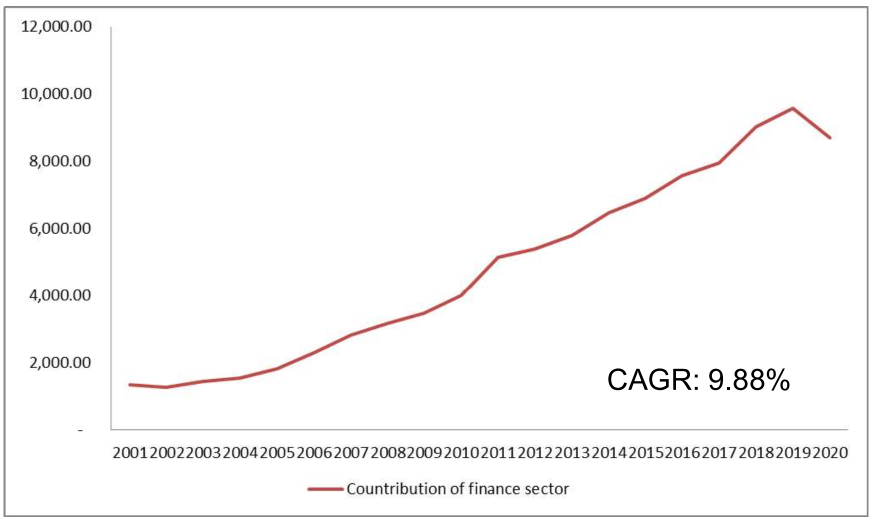

Figure 1.

Contribution of financial sectors to the GDP of Bhutan (2001-2020).
Source: Annual Report of Bhutan statistical bureau (2001-2020)

Fig 1 shows that contribution of financial sectors to GDP for the period of 2001 to 2020. There has been a steady increase in the contribution made by the financial sector towards GDP from 2001 to 2018. However, the graph shows a slight decline in the contributions in 2019 and 2020. Fig 1 also shows that the annual contribution of financial sector towards GDP is 9.88%, which means there was an approximate increase of 10% in CAGR during the study period.

Many studies discussed in the literature review section conclude that banks play an important role in the economic growth of a country.

Banks are the institutions that mobilises the unused funds which consequently contributes to the economic development of a country. This has been the same case with the banks in Bhutan. Since Bhutan is highly dependent on tourism industry and agriculture sectors, the banks in Bhutan have specialised itself in offering schemes for the development of small-scale sectors and agricultures. For example, the banks in Bhutan provide various entrepreneurial loans and agricultural loans. This not only helps individuals to sustain themselves but also facilitates creation of employment opportunities. The banks in Bhutan also provides loans for investment in stocks and shares.

Table 3.
ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
Between Group	501.812	5	100.362	93.667	0.000
Within Group	15.001	14	1.071		
Total	516.812	19			
R Square: 0.971		**Adjusted R Square: 0.961**		**Durbin-Watson: 1.582**	

Source: Author's Calculation

Table 3 presents the ANOVA table of the study. The test was conducted at 5% level of significance. The analysis show that p-value is less than 0.05 (sig: 0.000) which indicates that the test was statistically significant at 5% level of significance. Adjusted R square is at 0.961 which shows that 96.1% of the times the dependent variables are defined by the independent variables. The Durbin-Watson value (1.582) is also at normal range which is 1.5-2.5 (Zach, 2022,). This shows that there is no auto correlation in the model that was used in the study.

Conclusion

The GDP of Bhutan has grown in terms of Gross Domestic Savings and Gross National Income. The analysis reveals strong connection between GDP and the two variables namely Gross Domestic Savings and Gross National Income. Hence, the null hypothesis is rejected, and it can be concluded that Gross Domestic Savings and Gross National Income significantly impact the economic growth of Bhutan. The findings of this study align with that of Tenant and Abdulkadri (2010) who concludes that enhancing public savings will contribute to the economic development of a country.

The null hypothesis of the three other variables used in this study could not be rejected. Thus, it can be concluded that domestic credit to private sectors by banks, trade, and real interest rate does not have a significant impact of the economic growth of Bhutan.

Compounded Annual Growth Rate (CAGR)[5] also showed a constant increase in the contribution made by the financial sector towards GDP from 2001 to 2020 with a slight decline in the contribution in 2019 and 2020. This decline was caused by the COVID-19 pandemic.

[5] CAGR depicts the annual growth rate of businesses and investment. Primarily, it is used for measuring the annual growth rate from various data sets as it gives accurate measure in fall or rise in the turnover but it does not factor in risk.

This study attempted to understand the variables affecting the economic growth of Bhutan. However, it used only five independent variables over a study period of twenty years. Since the banking variables are not confined to these five independent variables there is scope for more studies using other variables in future. This will help to understand the contribution made by the banking sectors to the economic development of Bhutan.

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