Bank Regulations and Earnings Per Share of Commercial Banks in Nepal: An Observation

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Abstract

Purpose – The purpose of this research is to examine whether Nepal's commercial banks' earnings per share (EPS) are affected by the following banking regulations: bank capital (BC), loan loss provision (LLP), weighted average spread rate (SR), broad money supply (BMS), and base rate (BR).

Design/methodology/approach – This work uses a descriptive, correlational, and causal-comparative research design. The paper examined data from secondary sources. The information came from the yearly audit report that was gathered from each bank. The research examined the data of 26 (before merger) and 19 commercial banks (after merger) from the fiscal years 2012/13 to 2022/23. Rastriya Banijya Bank, which is completely owned by the government, is not included in the research. The mean, maximum value, minimum value, standard deviation, and coefficient of variation were among the descriptive statistics that were computed. Correlation analysis was used to measure relationship, and multiple regression analysis was used to determine the impact of the associations.

Findings and Conclusion – Based on coefficient of variation, the research has revealed that the highest dispersion was found in LLP, and the least was found in SR. The negative association has been found between EPS and BMS as well as EPS and BR. However, there has been positive association between SR and EPS. Also, there has been insignificant association between EPS with BC and LLP. The result showed that there has been positive impact of BC and SR on EPS but it is negatively influenced by BR, LLP, and BMS.

Implications – The findings offer new insights and directions for NRB regulation on EPS power of banking regulation on return on investment.

Keywords – Bank capital, Base rate, Broad money supply, Earnings per share, Loan loss provision, Weighted average spread rate

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1. Introduction

One of the most crucial and decisive factors of company decision-making is the long-term capital. Long-term investment is the foundation of the capital budgeting process, which aids in figuring out at what point the business can produce the most money at the lowest possible rate while making the most profit. The profitability of Islamic banking in terms of expanding the distribution of share earnings to investors may be impacted if a business increases its capital structure through debt (Nugrahani & Suwitho, 2016), and their findings has validated by Gusnita and Martha (2019), who have claimed that capital structure might erode the correlation between a company's growth and value.

A company that trades equity instruments in open markets can include EPS in its financial statements (IFRS, 2014). EPS is a metric that divides a company's profits among all of its common stock (Vaidya, 2014). It functions as a gauge of profitability by comparing a company's performance to the share capital used to generate these returns (Koppeschaar et al., 2013). It is said that because EPS may be used to evaluate risk and business performance, it is crucial when making investment decisions. As a result, EPS serves as a gauge of shareholder wealth, and share value increases in tandem with EPS growth (Mkhonza, 2012). Prior studies by Solomon (1963) and Durand (1959) came to the conclusion that capital structure affects EPS. There is still a considerable impact of LLP, SR, BR, BC, and BMS on the EPS of commercial banks in Nepal. Thus, this paper attempted to investigate the existing situation of LLP, BMS, SR, BR, and BC in Nepali commercial banks.

2. Review of Literature

(Moscu, 2014) examined the relationship between 53 Romanian banks listed businesses' capital structure and profitability. Among other profitability metrics, the author used EPS to gauge profitability. Multiple regression analysis revealed a significant positive correlation between the profit and capital structure. In a different region of Europe, Vuong et al. (2017) looked into how capital structure affected the financial performance of UK listed companies between 2006 and 2015. Four performance variables: EPS, Tobin's Q, return on equity (ROE), and return on assets (ROA)—were used in the study to measure data from 739 UK listed companies on the London Stock Exchange. The findings indicated a negative correlation between EPS and capital structure. In a separate study, Norvaišienė and Stankevičienė (2012) examined the connection between the performance of Lithuanian food and beverage enterprises between 2005 and 2010 and their capital structure. As performance metrics, they used operating margin, net profit margin, EPS, return on capital, return on equity, and return on assets. Correlation coefficients showed that there was a negative association between EPS and the other capital structure metrics. Although the authors did not examine the reverse causation relationship between the two variables, these results were consistent with the Miller and Modigliani theorem.

Mand and Singh (2015) used 15 control variables to assess how capital structure affected Indian companies' earnings per share. The relationship between the independent and dependent variables was established using panel data regression. They discovered that, with the exception of telecoms, capital structure and EPS have a statistically negligible association. In their studies, Saleem and Naseem (2013) and Utami and Hidayah (2017) came to the similar conclusion that there was no connection between the two (capital structure and EPS) factors. Similarly, Siddik et al. (2017) used panel data from 22 banks over the years 2005–2014 to assess the connection between capital structure and bank performance in Bangladesh. In their studies, when ROE and EPS were used as stand-ins for bank performance, the pooled OLS result showed that capital structure had an adverse relationship with bank performance.

The interest rate is the price the lender charges the borrower to use the borrowed money (Mishkin, 1981). The borrower forfeits the opportunity to profit from additional investments that the borrowed funds may have been used for funds in return for paying the lender a commission on the borrowed funds, which is what interest is. Therefore, interest can be viewed as "opportunity cost" or "monetary income" from the lender's perspective, and the interest rate is the rate at which interest (or opportunity cost) accumulates over time. The interest rate (also known as the opportunity cost) increases with the length of the loan. The interest rate is the cost of capital from the perspective of the borrower. Stated differently, it is the expense a borrower must pay in order to obtain the cash. Based on study of nine nationalized banks from the fiscal year 2011/12 to 2019/2020, there was high degree of direct relationship between interest rate and earning per share at one percent level of significance (Schmelzing, 2019).

The bank rate is governed by the country's central bank, this is of high importance for commercial banks. The bank rate is the amount that the central bank bills commercial banks for lending. One-way central banks affect economic activity is through bank rate management. With reducing the cost of borrowing money for borrowers, lower bank rates can aid in economic growth, while higher bank rates help control inflation when it exceeds targeted levels (Koch & MacDonald, 2014). Khan and Sattar (2014) examined how interest rates affected the profitability of four significant commercial banks in Pakistan between 2008 and 2012. They discovered a strong and positive correlation between profitability and interest rates. Using the OLS approach, Obidike et al. (2015) examined the effect of spread rate on the performance of the Nigerian banking sector from 1986 to 2012 and found that interest rate i.e. spread rate has a long-term negative and significant influence on bank performance.

Lina Tu (2012) used a sample of 16 Chinese commercial banks to examine the effects of macroeconomic factors on the stock return of the banking sector in China between 2007 and 2012. The generalized least squares model was used to determine the determinants. The money supply, interest rate, inflation rate, and exchange rate were the four variables that were considered. Testing these variables revealed that interest rates had a negative but significant relationship with the stock return of the banking business, while inflation and money supply had a positive but insignificant relationship.

LLP one of the most significant bank accruals is determined by using an incurred loss approach and represent the anticipated losses from their lending operations (Ozili, & Outa, 2017). Unexpected losses, which are determined using risk-weighted assets and are characterized as negative departures from the anticipated losses, ought to be covered by BC. Research on the relationship between a bank's risk profile and earnings management through limited liability partnerships is lacking from a prudential standpoint (Lepetit et al., 2008). In the perspective of LLP, negative relationship existed between LLP and profitability which was based on the research conducted on Swiss commercial banks from 1999 to 2009 (Dietrich & Wanzenried, 2011). Vong and Chan (2009) revealed inverse relationship between LLP and profitability.

Based on the above review of literature, the research of impact of LLP, SR, BR, BC, and BMS on EPS of Nepalese commercial banks is still incomplete. This is the research gap of this study. So, the purpose of this research is to investigate the existing situation of LLP, BMS, SR, BR, and BC which is the total value of core capital plus supplementary capital, and EPS along with evaluating their relationship. Additionally, the aim of this research is to examine the influence of BC, BR, SR, BMS, and LLP on EPS of Nepal's commercial bank.

3. Methods

The research attempted to investigate the existing situation of BC, LLP, SR, and BMS, EPS, and BR of commercial banks. In order to understand their relationship through statistical measures, descriptive statistical tool such as mean, standard deviation, coefficient of variation, and range were used. The research also used correlational and causal-comparative research design to measure the relationship and impact of independent variables on dependent variable. The paper analyzed the influence of BR, SR, LLP, BC, and BMS on EPS of commercial bank. To measure the influence of regulatory factors on EPS, the following regression model has been formulated:

$$EPSi,t = \alpha 0 + \beta 1SRi,t + \beta 2\ BRi,t + \beta 3BMSi,t + \beta 4BCi,t + \beta 5LLRi,t + \varepsilon i,t$$

4. Results

Table 1 has presented mean, maximum and minimum value, standard deviation, and coefficient of variation of BC, LLP, BMS, EPS, BR, and SR.

Table 1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	C.V.
EPS	267	-40.23	198.53	24.8437	17.45457	70.25741
BC	258	4398193	140232067893	14357583667.73	13455079565.678	93.71409
LLP	258	-611343157	14789309588	1682742461.67	1759732422.647	104.5753
BMS	286	1315376280000	6130483400000	3390339725454.54	1592484466935.410	46.97124
SR	262	2.49	7.32	4.2028	.73634	17.52033
BR	218	3.84	12.63	8.6463	1.80384	20.86265
Valid N (listwise)	210					

The result of coefficient of variation (C.V.) in the Table 1 shows the highest dispersion in LLP (104.5753), and has corresponding value to BC, EPS, BMS, BR, and SR respectively.

Table 2

Correlation Analysis

Variables	EPS	BC	LLR	BMS	SR	BR
EPS						
BC	-.05					
LLR	-.06	.47**				
BMS	-.24**	.67**	.36**			
WSR	.42**	-.02	.22**	-.24**		
BR	-.48**	.11	.17*	.12	-.12	

** Symbol of 1 percent LOS and * symbol of 5 percent LOS.

Table 2 represents the relationship between EPS, BC, BMS, LLP, BR, and SR. The result revealed that there was a lower degree of inverse relationship between EPS and BMS, as well as EPS and BR at 1% percent level of significance. There was a moderately weak positive association between EPS and SR at 1% percent level of significance, and there was insignificant association of EPS BC and LLP.

Table 3

Regression Results $EPS_{i,t} = \alpha_0 + \beta 1BR_{i,t} + \beta_2 WSR_{i,t} + \beta_3 BC_{i,t} + \beta_4 BMS_{i,t} + \beta_5 LLR_{i,t} + \varepsilon_{i,t}$

	β0	B1 BRi,t	B2 SRi,t	B3 BCi,t	B4 BMSi,t	B5 LLPi,t
Standardized coefficients		-.443	.173	.296	-.241	-.146
t	5.630	-7.520	2.852	3.668	-2.996	-2.164
Sig.	.000	.000	.005	.000	.003	.032
VIF		1.062	1.134	2.000	1.979	1.394

Note: ANOVA: df. 5, Residual 204, Total = 209, Sig. at 0.000, F = 20.495, Durbin Watson = 1.661, Adjusted R-Squared = 0.318.

Table 3 presented the regression result of EPS regressed on BR, SR, LLP, BC, and BMS. Analysis of variance results depicts that the result of regression was significant statistically at 1 percent level. The variance whose value came out to be at 31.8% was shown by this regression model. Value of Durbin is based on 209 number of observation and five number of degrees of freedom. All independent variables variance inflation factor is less than 2. Based on coefficient value SR and BC positive effect on EPS but BMS, LLP, and BR negative effect on EPS at one percent LOS.

5. Discussion

The paper attempted to investigate the existing situation of and relationships with between the LLP, BMS, SR, BR, and BC and dependent variable EPS. Further, the research analyzed the influence of BC, BR, SR, LLP, and BMS on EPS of commercial banks in Nepal and association of these. The findings revealed that there was positive association between SR and EPS of commercial banks in Nepal, and this result is consistent with the findings of Khan and Sattar (2014); however, it is inconsistent with the result of Ugochukwu (2015). Further, the result showed that there was a negative association between BR and EPS of commercial banks in Nepal. This result is consistent with the results of Lina Tu (2012). The relationship between BMS and EPS of commercial banks in Nepal was found to be negative. In the perspective of BC and LLP, there was not significant association between EPS and BC as well as EPS and LLP of

commercial banks. In Nepali commercial banks, BR has negative impact on EPS, and this result is consistent with Lina Tu (2012). However, SR has positive impact on EPS of Nepali commercial banks, and this result is consistent with the result of Khan and Sattar (2014); however, this finding is inconsistent with the result of Ugochukwu (2015). The BC has positive impact on EPS, and this result is consistent with the result of Moscu (2014) but the result is opposite with the findings of Norvaišienė and Stankevičienė (2012). Regarding BMS, it has negative influence on EPS. There was also negative effect of LLP on EPS, and this result was consistent with the result of Dietrich & Wanzenried (2011). BC has positive effect on return on investment; however, LLP has negative effect on return on investment. SR increases return on investment; however, this is not practical from the customer point of view. This is controlled by central bank regulation. Higher SR increases risk on return on investment. BMS and BR have negative effect on return on investment which is regulated and governed by Nepal Rastra Bank (NRB).

6. Implications

The paper incorporates the LLP, BMS, SR, BR, and BC as independent variables and EPS as dependent variable. The findings of the research may help authority who formulate monetary and exchange rate policies. In order to create and carry out the monetary and foreign exchange policies, it is required to maintain price stability and the balance of payments, which ultimately support stability and long-term economic growth. As Nepal's central bank, the NRB uses a variety of instruments and policy measures, including interest rate adjustments, open market operations, reserve requirement modifications, standing facility use, credit control, and exchange rate policy management, to formulate monetary policy and regulate the nation's economy in order to accomplish this goal.

7. Conclusions

EPS of Nepalese commercial banks is influenced by different regulatory factors of Nepal Rastra Bank, the central bank of Nepal. The regulatory factors are: BR, SR, BC, LLP, and BMS. SR and BC have a productive impact on earnings per share of commercial banks in Nepal. Out of the independent variables, BC has the high influence on EPS. However, EPS is negatively influenced by the BR, BMS, and LLP in commercial banks of Nepal. Among them, BR has the highest influenced on EPS. This research concluded that Nepal Rastra Bank's regulation is important for increasing EPS of commercial banks in Nepal. There is insignificant relationship between EPS and BC and LLP of commercial banks in Nepal.

8. Limitations and Direction for the Future Research

This study only focused on secondary sources of data. This study has ignored subjective information and other regulatory parameters. This paper is unable to capture the opinion and experience of top-level executives of central bank, who could have helped to furnish the information so that the impact of central banks regulatory factors on EPS can be measured the sustainability and financial performance of commercial banks. So, this is the scope of the future research. Based on secondary sources of data, this research is only limited to profitability which is based on specific return on investment alone. Therefore, future research could focus on profitability based on revenue.

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