Relationship of Bank's Profitability with Bank's Specific Variables of Commercial Banks in Nepal

* Resam Lal Poudel

* Lecturer, School of Business, Pokhara University, Nepal

Abstract

The paper empirically analyzes the determinant of banks profitability in Nepal. It has been undertaken to examine and analyze the relationship of bank profitability with bank specific variables of commercial banks. This study includes ten commercial banks as a sample using convenience sampling and ten years period from 2005-2015 for data requirement within the framework of descriptive and analytical research design. The analysis is based on the secondary data published by Nepal Rastra Bank (NRB). The paper reveals that the Return on Equity (ROE), Return on Assets (ROA) and Net Interest Margin (NIM) are the major indicators of bank profitability. The linear trend describes that ROA and NIM have positive relationship with bank profitability and negative relationship with ROE. Private and Joint venture banks have better assets quality as well as they are able to meet Capital Adequacy Ratio (CAR) norms. Asset size has negative relationship with NIM, ROA and ROE. Operating efficiency or Cost to Income Ratio (CIR) has positive or negative impact on bank profitability. CIR shows positive relationship with ROE .However CIR has negative relationship with ROA and NIM. TL/TA (liquidity risk) has negative relationship between ROA. These findings shows that the level of bank profitability is determined by other factors which include the bank specific variables and the macroeconomic control variables. From the study it can be concluded that the bank specific i.e. bank control variables play major role in determining commercial bank performance in Nepal.

Keywords: Net interest margin, Profitability, Return on assets, Return on equity

1. Introduction

Financial sector is the backbone of economy of a country. It works as a facilitator for achieving sustained economic growth through providing efficient monetary intermediation. A strong financial system promotes investment by financing productive business opportunities, mobilizing savings, efficiently allocating resources and makes easy the trade of goods and services. McKinnon(1973) have reported that the efficacy of a financial system to reduce information and transaction costs plays an important role in determining the rate of savings, investment decisions, technological innovations and hence the rate of economic growth. Banking has become an important feature, which renders service to the people in financial matters, and its magnitude of action is extending day by day. It is a major financial institutional system in Nepal, which accounted for more than 70% of the total assets of all the financial institutions (Poudel, 2005). A profitable and sound banking sector is at a better point to endure adverse upsets and adds performance in the financial system (Athanasoglou et al., 2008). A competitive banking system promotes the efficiency and therefore important for growth, but market power is necessary for stability in the banking system (Northcott, 2004).

Stock market has been dominated by the commercial banks since a decade. Not only the stock market, but the commercial banks have also been major contributors to the revenue of the country. They have been paying a large amount of tax every year. Performance evaluation is the important approach for enterprises to give incentive and restraint to their operators and it is an important channel for enterprise stakeholders to get the performance information (Sun, 2011). The performance evaluation of a commercial bank is

usually related to how well the bank can use its assets, shareholders' equities and liabilities, revenues and expenses.

From their empirical findings, Demirguc-Kunt and Detragiache (1999) suggested that bank profitability is an important issue which could help banks understands the current conditions of the banking industry they are involved in and the critical factors they should consider in making decisions and creating new policies either for recovery or improvement. Studies on performance of banking institutions are aplenty. Results of these studies strongly suggest that bank profitability determinants vary across countries and among regions of the world. Studies on banking systems of developed countries show that net interest margins have significant positive relationship with a bank's level of capital, loan loss provisions, reserve requirements, implicit interest payments, and interest rate volatility. On the other hand, a study of Latin American bank spreads rarely confirmed and even contradicted some of the benchmark results (Brock and Suarez, 2000).

Since the investment of banking sector is quite challenging job, because the huge portion of earning is from investment itself. To maximize earning of banking sectors they should timely revised their management policy. Both external and internal factors have been affecting the profitability of banks over time. Identifying the key success factors of commercial banks allow to formulate policies for improving the profitability of the banking industry. Therefore, the determinants of bank profitability have attracted the interest of academic research as well as bank management, financial markets and bank supervisors. Finally, the study of bank performance becomes even more important; also in view of the ongoing financial and economic crises, which will have a fundamental impact on the banking industry in many countries around the globe.

The main purpose of the study is to examine and analyze profitability of Commercial Banks of Nepal. The specific objective of this study is to examine the relationship of banking profitability with the capital, assets quality, operational efficiency, assets size, and credit risk and liquidity management of the commercial banks.

2. Literature Review

Kutsieny (2011) carried out an empirical investigation into the determinations of commercial banks in Ghana. Using ROA as a measure of bank profitability, all the bank-specific variables were found to be significant in determining profitability. The results indicate that well capitalized banks are more profitable as capital adequacy had a positive and significant impact on bank profitability. The results also indicate that there is a positive relationship between liquidity and profitability implying that the more liquid a bank is the more profitable it becomes.. Measuring profitability with ROE, the effects of bank-specific variables were not very much different from the results of the model with ROA. The only difference was in term of the capital adequacy variable. This variable was negatively related to profitability (ROE) contrary to the case of (ROA) where capital adequacy was impacting positively on profitability. Another study made by Matthew & Esther (2012) on 'A Financial Performance comparison of foreign vs. local banks in Ghana'. The management of local banks is more efficient than that of foreign banks in Ghana. Foreign banks have more earnings power in terms of net interest margin than local banks in Ghana. Foreign banks are liquid in Ghana than the local banks. Foreign banks are usually larger in Ghana than the local banks.

Alper and Anbar (2011) examine the 'Bank specific and macroeconomic determinants of commercial bank profitability in Turkey' where 10 commercial banks observed over the period 2002 – 2010 consisting of 90 observations. The results show that the impact of loans/assets ratio (LA) and loans under follow-up/loans ratio (LFA) have a negative impact on profit and significant at 5% level of significance. As for the other bank-specific variables, namely liquidity, deposit volume, capital adequacy and net interest margin, they all show no impact on bank profitability.

The macroeconomic variables are not found to have a significant impact on banks' return on assets. Bank size (logA) shows a positive and significant relationship with profitability, when ROE is used as the dependent variable. Haslem (1968) used 64 operating ratios in order to measure the effects of management, size, location and time on profitability of commercial banks. Haslem's findings indicated that all variables tested were significantly related to profitability. He computed balance sheet and income statement ratios for all the member banks of the US Federal Reserve System in a two-year study.

Ali, Akhter & Ahmed (2011) conducted the study of the determinants of profitability for the banking system of Pakistan by taking into consideration bank specific and macroeconomic factors. The study has revealed and efficient image of profitability on banking sectors of Pakistan for the period 2006-2009. Kithinji (2010) carried out an empirical investigation into the quantitative effect of credit risk management and profitability of commercial banks in Kenya over a period of 4 years (20004-2008). His findings reveal that the bulk of the profits of commercial banks are not influenced by the amount of credit and nonperforming loans suggesting that other variables other than credit and nonperforming loans impact on profits.

Ongore (2013) examines the effects of bank specific factors and macroeconomic factors on the performance of commercial banks in Kenya. The relationship between bank performance and capital adequacy and management efficiency was found to be positive and for asset quality, the relationship was negative. This indicates that poor asset quality or high non-performing loans to total asset related to poor bank performance. In general, it can be concluded from this empirical study that bank specific factors (factors under the control of managers) are the most significant determinants of the financial performance of commercial banks in Kenya. Poudel (2012) carried out an empirical investigation into the impact of credit risk management on financial performance of commercial banks in Nepal over the period of 11 years (2000-2011) and financial report of 31 banks were used to analyze. The result of the showed that credit risk management is an important predictor of bank financial performance thus, success of bank performance depends on risk management. The study revealed that all these parameters have an inverse impact on banks' financial performance. Poudel further elaborate that, risk management in general has very significant contribution to bank performance; the banks are advised to put more emphasis on risk management.

3. Methodology

3.1 Research Design

Present study is mainly based on two type of research design i.e. descriptive and analytical. Descriptive research design describes the general pattern of determinants of bank profitability and its impact on bank performance. The analytical research design makes analysis of the gathered facts and information and makes a critical evaluation of it. Here ratios analysis, central tendency analysis, correlation analysis and testing of hypothesis are done. The research is fully based upon the secondary data and regression model testing as done to examine the relationship of profitability and bank performance.

3.2 Description of Sample

The total population taken for this study includes all the commercial banks operating in Nepal till 2015 and as a sample only 10 commercial banks are taken for study. Under the study of Profitability of Nepalese commercial banks, the total number of commercial banks including Public, joint venture and Private Banks operating in the Nepal is the population. This study is based on convenient sampling method.

3.3 Data Collection Procedure / Technique

This study mainly based on secondary data. To show the relation between variables involved secondary data are used. The sources of secondary data have been collected from published annual reports, published bulletins and prospects of concerned organizations, various publications of Nepal Rastra Bank, various thesis and various papers, journals, magazines and websites.

3.4 Data Processing and Presentation

Data collected for the study are presented in various forms. Most of the secondary data are presented in tabular form and some graphical presentation is also used. So far as the computation is concerned; it has been done with the help of computer software program i.e. excel, SPSS.

3.5 Model Specification

Model: I

$NIM_{it} = \alpha + \beta_1 (TA_{it}) + \beta_2 (NPL/TL_{it}) + \beta_3 CIR_{it} + \sum_{j=i}^{n} \beta j\, X_{it} + \sum_{t=2}^{n} \gamma\, TD_t + \sum_{j=z}^{n} \delta FD_i + \varepsilon_{it}$ Where, X=Vector of firm specific Variables

$TD_t = Time\ Dummy\ Variable$

$FD_j = Firm\ Dummy\ Variable$

Model: II

$\textbf{ROA}_{it} = \alpha + \beta_1 (TA_{it}) + \beta_2 (NPL/TLit) + \beta_3 CIR_{it} + \beta_4 (LLP/TL_{it}) + \sum_{j=i}^{n} \beta j\, X_{it} + \sum_{t=2}^{n} \gamma\, TD_t + \sum_{j=z}^{n} \delta FD_i + \varepsilon_{it}$

 Where, X=Vector of firm specific Variables

$TD_t = Time\ Dummy\ Variable$

$FD_j = Firm\ Dummy\ Variable$

Model: III

$\textbf{ROE}_{it} = \alpha + \beta_1 (TA_{it}) + \beta_2 (CIR_{it}) + \beta_3 (LLP/TL_{it}) + \beta_4 (TL/TA_{it}) + \sum_{j=i}^{n} \beta j\, X_{it} + \sum_{t=2}^{n} \gamma\, TD_t + \sum_{j=z}^{n} \delta FD_i + \varepsilon_{it}$

     Where, X=Vector of firm specific Variables

$TD_t = Time\ Dummy\ Variable$

$FD_j = Firm\ Dummy\ Variable$

4. Results and Discussion

4.1. Correlation Analysis

The following tables are the output of correlation analysis done with the help of the software. This tables show the significance of correlation between dependent and independent variables.

Table 1: Correlation Matrix of Variables

Variables		ROA	ROE	NIM	LogA	CAR	NPL	CI	LLP	TL
ROA	Pearson Correlation	1.000								
	Sig. (2-tailed)									
ROE	Pearson Correlation	-0.103	1.000							
	Sig. (2-tailed)	0.309								
NIM	Pearson Correlation	0.498*	-0.169***	1.000						
	Sig. (2-tailed)	0.000	0.093							
LogA	Pearson Correlation	0.178***	-0.464*	0.415*	1.000					
	Sig. (2-tailed)	0.077	0.000	0.000						
CAR	Pearson Correlation	0.078	0.492*	-0.343*	-0.485*	1.000				
	Sig. (2-tailed)	0.441	0.000	0.000	0.000					
NPL	Pearson Correlation	-0.219**	-0.240**	0.107	0.205**	-0.760*	1.000			
	Sig. (2-tailed)	0.029	0.016	0.288	0.041	0.000				
CI	Pearson Correlation	-0.659*	-0.057	-0.400*	0.095	-0.363*	0.479*	1.000		
	Sig. (2-tailed)	0.000	0.576	0.000	0.347	0.000	0.000			
LLP	Pearson Correlation	-0.696	0.101	-0.102	-0.043	-0.359*	0.403*	0.530*	1.000	
	Sig. (2-tailed)	0.000	0.318	0.312	0.673	0.000	0.000	0.000		
TL	Pearson Correlation	-0.134	0.286*	-0.292*	-0.466*	0.636*	-0.604*	-0.256*	-0.086	1.000
	Sig. (2-tailed)	0.184	0.004	0.003	0.000	0.000	0.000	0.010	0.397	

*significant at 1% level, **significant at 5% level, *** significant at 10% level

From the table 1, Return on Assets (ROA) is positively correlated with the Log of total assets (Log A), and Capital Adequacy Ratio (CAR). The positively coefficient estimates of the correlation implied that there was a direct relationship of log A and CAR with statistically significant at 10% level and insignificant respectively. That means at 90% confidence interval, ROA has significant relationship with log A. The negative coefficient estimates of the correlation resulted in these ratio have inverse relationship with ROA. Though Non Performing Loan (NPL) has negatively correlated it is statistically significant at 5%, which means 95% confidence interval, ROA has significant relationship with NPL. Likewise Loan Loss Provision /Loan Ratio (LLP/TL) and CAR is negatively correlated but it is statistically significant at 1% level which means 99% confidence interval, ROA has significant relationship with LLP and CAR. While Return on Equity (ROE) and Total Loan/Total Assets (TL/TA) has insignificant affect on ROA.

ROE is positively correlated with CAR, LLP/TL and TL/TA.ROE is statistically significant at 1% level with CAR and TL/TA which means 99% confidence interval, ROE has significant relationship with CAR and TL/TA. Though LLP/TL is positively correlated with ROE it has insignificant affect on ROE. ROE is negatively correlated with NIM, Log A, NPL, Cost to Income Ratio (CIR). However Net Interest Margin (NIM), log A, NPL is negatively correlated with ROE but it has strong significant affect on ROE at 1%, 1% and 5% confidence level and insignificant relationship with CIR.

With NIM, it is positively correlated with CAR, NPL and negatively correlated with log A, CIR, LLP/TL, TL/TA. The result shows that the impact of CAR have a positive impact on profit and significant at 1% level. Log A, CIR, TL/TA have a negative impact on profit and significant at 1% level. As for other bank specific variables, namely NPL, LLP shows no impact on bank profitability. Log A is found to be significantly affecting the profitability of Commercial bank measured by ROA. While measured with ROE, CAR and TL/TA found to be significantly affecting the profitability of Commercial bank. And with NIM, CAR found to be significantly affecting the profitability of Commercial bank.

4.2 Independent Sample T-Test

Table 2: One-Way ANOVA Test using Ownership as Factor

	Average					
	Public	**Joint venture**	**Private**	**Total**	**F-test**	**Sig.**
ROA	1.37	2.04	0.88	1.44	3.47**	0.032
ROE	-16.38	21.28	13.48	10.23	50.03*	0.00
NIM	4.67	4.06	3.52	1.02	15.18*	0.00
LogA	51.95	34.43	11.53	20.27	79.22*	0.00
CAR	-29.24	11.84	12.41	18.49	215.72*	0.00
NPL	26.51	2.68	4.07	13.98	38.84*	0.00
CI	155.85	32.65	48.33	143.81	5.45*	0.004
LLP	2.19	0.75	1.55	2.29	2.96***	0.056
TL	34.87	53.73	69.59	16.13	85.54*	0.00

*,**, & *** means the value is significant at 1 %, 5 % and 10 % level of significance respectively

The above table shows the average mean on the basis of ownership. To test this null and alternative has been tested.

Null hypothesis (H$_0$): There is no difference in profitability by bank types (μ1=μ2=μ3).

Alternative hypothesis (H$_1$): There is difference in profitability by bank types (μ1=μ2=μ3).

Average mean based on ownership shows that there is significant relationship between bank profitability and bank types. Hence, alternative hypothesis has been accepted. Joint venture banks has higher ROA and ROE i.e. 2.04 and 21.28 respectively than public and private banks which indicate that bank total assets are well invested to earn the profit and has diversified investment. Public and Private Banks has higher NIM which indicates that the bank earns more interest revenue than interest expenses as its minimum value of NIM is above 4 i.e. 4.67 and 4.06.

Public bank has higher total asset and operating expenses than joint venture and private bank. Higher total asset indicates that public bank has invested more in infrastructure, technology, employment recruitment, training and fixed assets, which have also increases the expenses and decline the profit of public bank. F-test shows that total assets and operating expenses are positively related with the profitability at 1% level of significant.

Public bank has negative capital adequacy ratio which result in liquidity problem in public bank but joint venture and private banks has maintain their CAR above 10%. F-test shows that CAR is positively related with bank profitability at 1% level of significant.

Among three banks Non-performing loan (NPL) of Public bank are higher which shows that Public bank has no proper management and does not follow the lending policy investment so high risk in loan provision, which increases the NPL. Loan loss provision (LLP) of Public bank is also higher than both the banks. F-test indicates that both NPL and LLP are positively related with bank profitability and significant at 1% and 5% level. Hence, the average mean of joint venture and private are better than the public bank. Public bank works are more bureaucratic so work performance are slow. But the total mean of three banks are satisfactory.

Table 3: Independent Sample T-Test using Bank Age as Factor

	Bank			
	NEW	OLD	t-test	sig.
ROA	0.99	1.89	-2.68**	0.025
ROE	13.53	6.92	1.71***	0.091
NIM	3.57	4.43	-4.65*	0.00
LogA	16.28	42.26	-7.81*	0.00
CAR	12.32	-4.45	5.07*	0.00
NPL	4.28	11.73	-2.75*	0.007
CI	45.02	80.5	-1.24	0.239
LLP	1.47	1.24	0.401	0.518
TL	67.68	46.92	8.39*	0.00

*,**, & *** means the value is significant at 1 %, 5 % and 10 % level of significance respectively.

The above table 3 shows the average mean based on its establishment. To test this null and alternative has been tested.

Null hypothesis (H_0): There is no difference in profitability by year of establishment of bank.

Alternative hypothesis (H_1): There is difference in profitability by year of establishment of bank.

Average mean based on its year of establishment shows that ROA, ROE, NIM, Log A, CAR, NPL, and TL has significant relationship between bank profitability and its year of establishment. Hence, alternative hypothesis has been accepted. But according to CI and LLP there is insignificant relationship between bank profitability and its year of establishment.

Average ROA of older banks are higher than new bank. There is significant relationship between ROA and establishment of bank at 5% level of significant but negatively. Newer banks have lower ROA due it preliminary expenses and have to invest on fixed assets like infrastructure, technology and many more. But an older bank has already invested on those sectors and had earned a lot of profit. Return on equity has positive and significant relationship with established year of bank at 10% level of significant. Newly established bank has higher ROE than old bank because newly established bank are in search of new investment opportunity with new policy and with higher risk and higher return. But old type of bank invests on long term with lower risk like government security. NIM is statistically significant at 1% level but negatively related with established year of bank. Old bank has higher NIM which shows that the bank earns more interest revenue than interest expenses as its minimum value of NIM is above 4 i.e. 4.43. Log A is statistically significant at 1% level but negatively related with established year of bank. CAR and TL are positively and statistically significant at 1% level. Older bank has negative CAR which shows that old bank are suffering from liquidity problem. NPL is statistically significant at 1% level but negatively related with established year of bank whereas CI and LLP are statistically insignificant. According to the establishment of year new banks performs well than the old types of banks. New banks perform well because they had adopted new policy, advance technology, good networking among banks and can change according to demand of customers and environmental situation.

4.3 Empirical Regression Results

The above relation analysis has shown that all the variables are somehow related to profitability. The aim of this section is to explore in detail the above relationships by using regression analysis. Regression result are based on return on assets (ROA), return on equity (ROE) and net interest margin (NIM) as measures of bank's profitability. In order to understand how commercial bank's profitability relates to bank specific factors different models has been used.

In the table, model I explained the affect of NIM on bank profitability. Model II explained the affect of ROA on bank profitability. Likewise, Model III explained the affect of ROE on bank profitability.

Table 4.18: Regression Results of Fixed Effect Firm and Time Model

Variables	Model I			Model II			Model III		
Dependent	**NIM**			**ROA**			**ROE**		
Independent	coefficient	Sign.	VIF	Coefficient	Sign.	VIF	Coefficient	Sign.	VIF
Constant	6.740 12.243	0.000		4.958 5.345	0.000		5.816 1.227	0.224	
Asset size	(0.022) (2.440)	0.17	9.948	(0.030)*** (1.819)	0.073	9.984	(0.621)* (3.698)	0.000	9.990
CAR	-	-	-	-	-	-	-	-	-
NPL	(0.006) (0.863)	0.391	3.134	-	-	-	0.528* 3.857	0.000	3.160
LLP	-	-	-	(0.482)* (6.949)	0.000	2.223	1.178*** 1.692	0.095	2.209
CIR	(0.004)* (8.389)	0.000	1.458	(0.006)* (6.098)	0.00	1.936	0.006 0.530	0.598	2.019
TL	-	-	-	(0.055)* (2.781)	0.007	8.832	-	-	-
R^2	0.749			0.781			0.767		
Adjusted R-squared	0.681			0.718			0.700		
F-statistic	11.079			12.449			11.520		
Probability (F-test)	0.000			0.000			0.00		
DW statistic	1.462			1.560			1.883		

*,**, & *** means the value is significant at 1 %, 5 % and 10 % level of significance respectively.

An examination of the results of the panel data in model I, asset size, NPL and CIR has negative relationship with NIM and also asset size, NPL has also insignificant relationship with NIM but with CIR it has significant relationship at 1% level. The coefficient of asset size, NPL and CIR are -0.022, -0.006, -0.004 respectively which means that one unit increase in asset size, NPL and CIR decrease NIM by -0.022, -0.006, -0.004.

Furthermore, the R^2 (coefficient of determinants) is a measure of the goodness of fit of the banking- specifics variables in explaining the variations in bank profitability. The value of R^2 is 0.749, which means that 74.9% of the total variation in the value of NIM was due to the effect of independent variables. The adjusted R2 is 0.681.This shows that on an adjusted basis the independent variables were collectively 68% related to the dependent variable NIM.F-test shows 11.079 at 1% level of significance, which shows the model is also significant. But the D-W test on this model show 1.462 which is below the tabled value d_l 1.571 and d_u 1.780. Thus, there is evidence of positive first-order serial correlation. By analyzing variance inflation (VIF) factor in model I, the results can prove that all variables have VIF value less than 10. This finding suggests that multi co-linearity was not a problem when selected explanatory variables were used to develop the predicted model.

Using ROA as a measure of bank profitability, all the bank specific variables are found to be significant in determining the profitability.

An examination of the result of the panel data in model II, asset size has statistically significant at 10% level and negative relationship with ROA. The coefficient of Asset size is -0.030, which means that one unit increase in asset size; decrease in ROA by 0.030 units while other variables are held constant. CIR and LLP has statistically significant at 1% level and has negative relationship with ROA. The coefficient of CIR and LLP is -0.006 and -0.482, which means that one unit increase in CIR and LLP; decrease ROA by 0.006 and 0.482 units respectively. Similarly, TL has a negative relationship with ROA but statically significant at1%.

Summarized the regression result of this model, the coefficient of determinant (R^2) is 0.781 that means 78.1% of variance in ROA is explained by bank specific control variables. F-test shows 12.449 at 1% level of significance, which indicates the significant of this model. D-W test shows the 1.560, which is in between the lower and upper tabled value d_l 1.550 and d_u 1.803.Thus, there is no autocorrelation. By analyzing variance inflation factor in model I, the result can prove that all variables have VIF value less than 10.This finding suggests that multi co-linearity was not a problem when selected explanatory variables were used to develop the predicted model.

An examination of the result of the panel data in model III, total asset size has statistically significant at 1% level and has a negative relationship with ROE. The coefficient of total asset size is -0.621, which means that one unit increase in asset size decrease in ROE by 0.621 units while other variables are held constant. Similar to total asset size, NPL has statistically significant at 1% level and positive relationship with ROE. The coefficient of NPL is 0.528, which means that one unit increase in NPL, increase in ROE by 0.528 units while other variables are held constant. Likewise, CIR and LLP are positively correlated with ROE but CIR has no statistical significant and LLP statistical significant at 10%. The coefficient of CIR and LLP are 0.006 and 1.178 respectively, which shows that one unit increase in CIR and LLP increase ROE by 0.006 and 1.178 units while other variables are held constant.

Summarizing the regression result of this model, the coefficient of determinant (R^2) is 0.767 that means 76.7% of variance in ROE is explained by bank specific control variables. F-test shows 11.520 at 1% level of significance, which indicates the significant of this model. D-W test shows the 1.883, which is above the lower and upper tabled value d1 1.550 and du 1.803. Thus, there is no autocorrelation. By analyzing variance inflation factor in model III, the results can prove that all variables have VIF value less than 10. This finding suggests that multi co-linearity was not a problem when selected explanatory variables were used to develop the predicted model.

In all three models, the asset size has negative relationship with NIM, ROA and ROE. All three models depict that asset size increase the cost of the bank and decrease the bank profitability. This finding also resemble with the finding of Ali, Akhter & Ahmed, which shows that asset size has negatively related with ROE.

Operating efficiency (CIR) has positive or negative impact on bank profitability. CIR shows positive relationship with ROE but has insignificantly related. Whereas CIR is negative relationship with ROA and NIM with statistically 1% level of significance. This negative relationship shows that the banks are not efficiently translating their expense into profit. TL/TA (liquidity risk) has negative relationship between ROA with statistically 1% level of significance. This finding is opposite of the findings of Kutsienyo.L implying that the more liquid a bank is more profitable it becomes. Liquidity ratio was found to have no significant effect on the performance of commercial banks in Kenya. Liquidity has lesser effect on performance of commercial banks in the study period in Kenya. Thus, it is possible to conclude that those bank managers who invest their liquid assets can generate income and boost their performance (Ongore, O.V 2013).

NPL/TA (Asset quality) has negative and insignificant relationship with NIM. This implies as the asset quality deteriorates (credit risk increases) the profitability of the bank also decreases. Hence, poor asset quality or high non-performing loans to total asset related to poor bank performance ROE has positive and significant relationship at 1% level. Thus, it can be concluded that banks with high asset quality and low non-performing loan are more profitable than the others.

Credit risk management is crucial on the bank performance since it have a significant relationship with bank performance. LLP/TL shows negative relationship with ROA at 1% level of significant and with ROE it shows positive relationship at 10% level of significant. Ali, Akhter& Ahmed (2011) also found the same result for financial institutions but the result shows negative relation with ROE and credit risk. Kithinji (2010) also found that there is no relationship between profits, amount of credit and the level of nonperforming loans.

In summary, model III is the better than other models. Its F-test shows 11.520 at 1% level of significance, which indicates the significant of this model. The coefficient of determinants (R^2) 0.767 that means 76.7% of variance in ROE is explained by the bank specific variables. Among the four explanatory variable three variables are statistically significant and there is no autocorrelation and multi co-linearity problem.

5. Conclusions

The present research and analysis has revealed many interesting issues with respect to the latest profitability condition of ten commercial banks, which are operating and standing in the middle to represent old and established commercial banks having operated over a decade ago. The study concludes that the profitability can be described in terms of capital, asset quality and size, operating efficiency, credit risk and liquidity position of the commercial banks. The analysis of data up to ten years till 2011/2012 for ten sample commercial banks has shown the overwhelming results.

It can be concluded from this entire research that ROE, ROA and NIM are the major indicators of bank profitability. The linear trend describes that ROA and NIM have positive relationship with bank profitability and negative relationship with ROE. Bank having higher credit risk and operating expenses has positive relationship with bank profitability. Joint venture banks have higher ROA and ROE where as Public and Private Banks has higher NIM. Among three banks, Joint venture banks have higher profitability. Using the bank age factors new banks performs well than the old types of banks. Asset size has negative relationship with NIM, ROA and ROE. Operating efficiency (CIR) has positive or negative impact on bank profitability. CIR shows positive relationship with ROE but has insignificantly related. However, CIR has negative relationship with ROA and NIM. TL/TA (liquidity risk) has negative relationship between ROA. NPL/TA (Asset quality) has negative and insignificant relationship with NIM but with ROE it has positive and significant relationship. LLP/TL shows negative relationship with ROA and with ROE it shows positive relationship and statistically significant.

From the study it can be concluded that the bank specific i.e. bank control variables play major role in determining commercial bank performance in Nepal. Therefore commercial banks that are keen on making high profits should concentrate on other factors also like inflation, GDP, money supply etc. which affect the economy of the country.

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