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Abstract

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Bank Specific Factors, Macroeconomic Variables and Market value of Nepalese Commercial Banks

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The present research has been carried out to identify the relationship and impact of bank specific factors, macroeconomic variables on the market value of Nepalese commercial banks. This research is based on descriptive cum causal research design with quantitative data from secondary sources. The study adopts panel regression to capture both cross sectional and longitudinal data characteristics and employs ordinary least square model with 120 observations of 20 commercial banks as entire population from the period of 2016/17 to 2021/22. The study reveals that banks with higher loan growth and size tend to maintain efficient market value, yet careful lending areas selection are crucial to mitigate no performing loan risk, which can decrease profitability and increase market risk. Higher non-interest income to non-interest expenses, operating revenue to operating expenses are major dimension to increase the market value. Book value per share and dividend payout ratio reflecting investor confidence in the bank's net worth and consistence return. The banks might adopt the strategy of diversifying lending portfolio, introduce non-interest income generation program along with increases the size and operation of the activities. The bank could follow the policy of increasing cash and stock dividend through higher profit. The study focuses on selected bank specific and macroeconomic factors without considering fixed/random and structural model. Future studies aim to employ in identifying causal link between bank factors, service quality and market value with different panel data model.

BANKS AND FINANCIAL institutions play an important role in mobilizing saving and channeling them in productive investment for economic growth and sustainability. To perform these

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activities efficient market value is prerequisite for banks in economy. Nepalese banking system and their market value have substantially changed after restoration of democracy from 2046 B.S. due to liberalization, deregulation, prudential reregulation, technology advance and globalization. Nepalese stock market is in early stage and lack of stability and sophistication compared to more established market which shows nonrandom price change. Investors show speculative behavior because they make decision on the basis of guesses rather than solid analysis. Brokers and financial institutions are unable to provide symmetric information to the investors for minimizing unpredictable fluctuations in stock price. The listed companies of NEPSE do not focus on minimizing the fluctuation of stock price by using the tool of operating efficiency. Pradhan and Adhikari (2004) revealed that Nepalese banks give first priority on profitability, secondly on cash flow, thirdly on dividend and fourth priority in stock price. But, efficient market value of stock is essential for smooth functioning the bank, financial market and achieving the economic growth. Efficient market value is that where current stock price is determined on the basis of profitability, credit strength, liquidity position, operating efficiency, risk management, investor confidence, regularity scrutiny, strategic decision making and future return expectation.

A bank creates value to its shareholders when the return on invested capital is greater than its opportunity cost (Marshall, 1890). Market value of commercial bank is a key indicator to make decision for the investors and other stakeholders. Market capitalization is identified by multiplying the current market price per share and total number of share outstanding. It is determined by investor perceptions, market demand and financial performance of relevant bank and financial institutions. There are various proxies are used to measure the bank value among them Tobin's Q and Market to book ratio (M/B) are popular measures (Calomiris & Nissim, 2014; Sarin & Summers, 2016; Chousakos & Gorton, 2017; Minton et al., 2017). Tobin's Q is the ratio between market value of equity plus book value of liabilities and total assets. M/B is the ratio between market value of equity to book value of equity and represents an appropriate measure of value creation. This study uses market price per share, price earnings ratio and dividend yield ratio as proxy of market value (Herath, 2020). The stock price refers to the valuation of individual share of company which represent single unit of ownership (Hunjra et al. 2014). O'Hara (2000) states that the price of share correlates directly with the earning generated and dividend distributed by the company. Fama and French (2001) examined the attributes of bank specific factors like size profitability and growth prospects on dividend yield ratio and identify the positive relationship on dividend yield during the period of financial crisis. Price earnings ratio is the relationship between a company's stock price and earning per share. It helps to identify either the stock price is overvalued or undervalued to compare with market. Dividend yield ratio shows the relationship between dividend and market price of the share. It helps to ascertain either firm provides enough dividend to compare its market price or not.

Macroeconomic variables such as Inflation rate, Gross domestic product, Money supply, Unemployment rate, Government debt, Government deficit significantly impact the market value of stock. Continuous and sustained increasing price of all commodities and services within the economy is known as inflation. The total market value of all final goods and services that are produced within the territory of particular country is known as GDP. There is negative relationship between inflation rate and market value of share but GDP has positive relationship to the market price of share.

Pradhan and Parajuli (2017) reveals that the determinants of market value of banking sectors in Nepal because few individuals are involved to manipulate the price of securities and engage in undesirable practices. This study seeks to employ the most widely accepted and analytical approach in study of market value in Nepal by incorporating operating efficiency, profitability and macroeconomic variables. The study main objective is to examine how managerial decision regarding operating efficiency and profitability influence the share market value. The specific objectives of the study is to measure the bank specific factors, macroeconomic variables, and market value of commercial banks. It examines the relationship and influence of bank specific factors and macroeconomic variables on the profitability of Nepalese commercial banks. So, this research might be fruitful for taking managerial decisions to banks for maintaining efficient market price.

Review Literature

There are many well established and growing literature that focuses on various factors that affect the value of the banks. The development of economy depends upon the investment of capital amount into productive area. Investment is major factor of capital formation and investors always analyze the profitability, capital gain, cash dividend, stock dividend and risk. The collection of deposit amount of banks depend upon the market value of share. A major strategic objective of bank is to identify the factors that largely influence the market value of the bank. There is positive relationship of profit, dividend and operating efficiency on value of bank. Profitability of bank is associated with collecting lower cost deposit and invest that amount into diversified portfolio with lower risk. Inefficient and ineffective utilization of fund receive from public may decrease profitability and market value which influences the sustainability of a bank. Boyd and Runkle (1993) examined the relationship between size and bank value, and found that size has a negative effect on M/B for the period 1981 to 1990, while the size effect is positive but statistically insignificant for the period 1971 to 1980. Conversely, De Nicolo (2001) assessed the effect of diversification on market value, showing that M/B decreases with increase in size for large US and international banks. But, M/B increases with the increase in size for small banks in the US. However, Avramidis et al. (2018) stated that bank size on M/B has positive effect for banks with transparent assets. Further, the effect of bank size on M/B is negative for banks with higher earnings. Ayako and Wamalwa (2015) have conducted study on determinants of firms value in commercial banks of Kenya and found that the size of assets, capital structure, cash flow, dividend ratios have no statistically significant individual effect on the firm value of the listed commercial banks of Kenya.

Creating value is a challenging job in case of bank because it faces higher level risk when gathering funds from the public and channeling those funds towards deficit units such as business, individual and government. There is no guarantee of return fund from borrowers as per the agreement due to change in global, economic and firm specific variable. But, the bank and financial institutions are liable to return the deposit amount to the deposit holders as per their requirement. Consequently effective fund management, cost control and optimum resource allocation is essential to minimize risk and enhance the value of firm. Tui et al. (2017) found that bank size and profitability significant positive but loan to deposit ratio and nonperforming loan have negative

significant impact on value of the bank. Gautam (2017) reveals that return on assets and bank deposit have positive effect on bank value whereas loan and credit ratio has negative influence on bank value of Nepalese commercial bank. This study suggests that if the bank and financial institution invest deposit into risky portfolio which increase the provision amount and reduce the profitability. The investors will not be assure that the bank continuously provide return which decrease the market value of the share.

Avramidis et al. (2018) revealed that an inverse u shape relationship between size and bank's market to book value of assets using a sample of US bank holding companies and there is negative influence of bank size on market to book value with higher earning management activities. Nirmala et al. (2011) conducted study major determinants of share price in health care, auto and public sector in India over the period of 2000 to 2009 and found that dividend payout ratio, price earnings ratio and leverage are the major variables which influence the market value of share. Oladele (2014) found that dividend policy and profitability highly influence the market value of share than other financial variables in Pakistan. Almumani (2018) found that the return on equity and dividend payout ratio have positive significant influence on market capitalization of the listed commercial banks in Jordan. If the bank increase the profitability in terms of investment and paid higher amount of dividend which ultimately increase the value of bank.

Samuel et al (2019) found that the regulatory capital, credit exposure, bank funding, bank size and corporate governance are major determinants of financial stability. Bank size, regulatory capital, bank funding and corporate governance have positive and statistically significance influence on financial stability but credit exposure has negative significant influence on market capitalization in commercial banks of Kenya. Olawaseyi et al. (2021) identified that capital adequacy, assets quality, liquid assets and deposit ratios have significant positive influence on market value but efficiency ratio has negative significant impact on value of bank in Southeast Asian countries. The study also shows that diversification, growth rate of GDP and inflation rate have no any significant influence on market value of the bank.

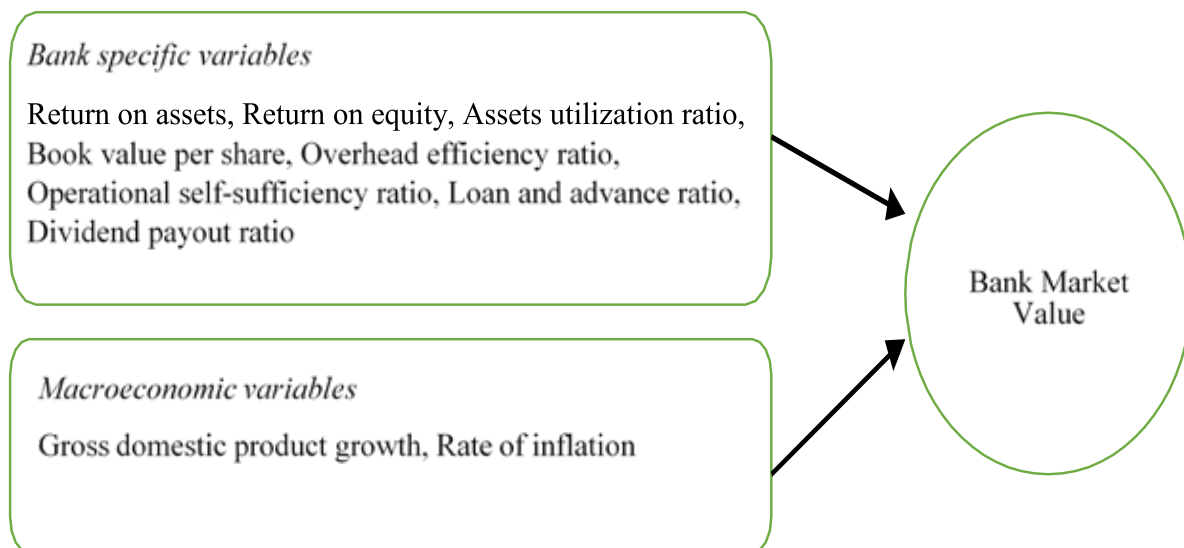
Sugianto et al. (2020) found that non-performing loan has significant positive influence on value of firm but return on assets, corporate growth, capital adequacy ratio, operating expenses ratio have no significant impact on value of bank in banking sector of Indonesia. Joshi and Giri (2015) found that long run co integrality of sectorial GDP, inflation rate and T-bills with stock indices in India. Various studies indicates that the bank and financial institutions increase their value through careful investment of loan to the deficit unit and optimizing expenditures on employee salary, rent, depreciation and other operating expenses. Bukit (2018) found that price to book value, dividend payout ratio, earning per share have positive significant influence on stock return. But return on equity has positive insignificant influence on market index in Indonesia. Menike (2006) found that strong negative relationship between stock price and inflation rate in Sri Lanka. But, the study shows that positive influence of money supply on stock price index due to higher money supply helps to increase the expand of money and people get lower cost fund which ultimately increase the demand of share. Higher inflation rate reduces the saving and demand of share in market.

Pradhan and Shrestha (2017) ascertained that return on assets, firm size, tax payable, earning per share, dividend per share have positive significant influence on market price per share. However, price earnings ratio has negative insignificant influence on market value. This study suggests that the profitability and market value have positive linear relationship. Gwachha (2019) found that asset size and deposit to total assets have positive and significant influence on bank profitability and value. But, loan amount has negative significant influence on value of firm which suggests that increase in loan amount causes risk and reduce the value of market price in Nepal. Gautam (2021) found that positive influence of leverage, dividend payout and dividend yield with stock return but there is negative influence of book to market value, growth of assets and earning price ratio with stock return in Nepalese commercial bank.

Most of the prior studies base on profitability, dividend, risk, liquidity, psychological contact theory and social exchange theory as determinants of market value of bank. The large numbers of research are conducted focusing on dividend payout ratio and profitability as major determinants of market value in Nepal. Previous studies do not provide managerial insight in term of managing operating efficiency for maintaining efficient market price of share. However, this research focuses on dimension like operating efficiency, macroeconomic variables, profitability and market value of bank which is new for study. Similarly, research on operating efficiency, profitability, macroeconomic variables and market value of bank by using entire population of twenty commercial banks is new in Nepalese context. So, this research helps to fulfill the gap in the existing literature too. On the basis of above literature the following model is developed for analysis;

Figure 1

Model of the Bank market value



Research Methodology

This study uses the bank market value proxies as market price per share, price earnings ratio, dividend yield ratio which are depended variables of the study. Return on assets, Return on

equity, Overhead efficiency ratio, Operational self-sufficiency ratio, Book value per share, Loan and advance ratio, Dividend payout ratio, Assets Utilization ratio, Gross domestic product growth and the rate of Inflation are taken as independent variables. It uses quantitative data from secondary sources to analyze the effect of bank specific factors, macroeconomics variables on market value of banks. The data are collected through annual reports of commercial banks, quarterly bulleting of Nepal Rastra Bank and economic survey of ministry of finance for the periods of 20016/17 to 2021/22 with the observation of 120. The researcher uses whole population for the study as samples to increase the reliability of findings. The study uses whole population to remove the random effect model in panel data. Banks are regulated by the central bank and there is mandatory to maintain the capital amount, provision amount and risk. So, it assumes that there is lower fixed effect on data due to similar nature of operation.

Descriptive research design is used to identify the status of bank specific factors, macro-economic variables and market value of banks. Descriptive statistics like mean, median, mode, maxima and minima are used to measure the status of variables. The causal comparative research design has been utilizes to measure relationship and influence of bank specific factors, macroeconomic variable on market value. Inferential statistics like Pearson correlation and ordinary least square models are used to assess the relationship and impact of independent variable on dependent variable. For this purpose, to check whether or not the multi-collinearity issue arises, it was done in two ways: correlation coefficients and variance inflation factor (VIF) values. The following regression models are used;

$$MPS_i = \alpha + \beta_1ROA_{it} + \beta_2ROE_{it} + \beta_3BVPSR_{it} + \beta_4OER_{it} + \beta_5OSR_{it} + \beta_6LAR_{it} + \beta_7DPR_{it} + \beta_8AUR_{it} + \beta_9GDP_{it} + \beta_{10}IF_{it} + \epsilon_{it}$$

$$P/E_i = \alpha + \beta_1ROA_{it} + \beta_2ROE_{it} + \beta_3BVPSR_{it} + \beta_4OER_{it} + \beta_5OSR_{it} + \beta_6LAR_{it} + \beta_7DPR_{it} + \beta_8AUR_{it} + \beta_9GDP_{it} + \beta_{10}IF_{it} + \epsilon_{it}$$

$$D/Y_i = \alpha + \beta_1ROA_{it} + \beta_2ROE_{it} + \beta_3BVPSR_{it} + \beta_4OER_{it} + \beta_5OSR_{it} + \beta_6LAR_{it} + \beta_7DPR_{it} + \beta_8AUR_{it} + \beta_9GDP_{it} + \beta_{10}IF_{it} + \epsilon_{it}$$

The operational definition of these variable is given in table 1

Table 1
List of the Variables with their Definitions

Variables	Symbol	Description
Dependent variables:		
Market price Per share	MPS	Market Price of Share in Rs
Price Earnings Ratio	P/E	Market price per share to Earnings per share
Dividend Yield Ratio	D/Y	Dividend to price per share

Independent**Variables;**

Return on assets	ROA	Percentage ratio of net income to total assets
Return on Equity	ROE	Percentage ratio of net profit to shareholders equity
Overhead efficiency ratio	OER	Noninterest income to Noninterest expenses
Operational self-sufficiency ratio	OSR	Operating Revenue to total of Operating Expenses, Financial Costs and Impairment Losses on Loans
Assets Utilization ratio	AUR	Total operating revenue to Total assets
Gross Domestic Product	GDP	It measures the size of an economy,
Inflation	IF	It reflects the buying power of the currency is deteriorating
Book Value Per Share	BVPS	Book value of a Bank
Loan and Advance Ratio	LAT	Total loan and advance to Total Assets
Dividend Payout ratio	DPR	Dividend to Net income

Results and Discussion

Result section shows the descriptive and inferential statistical output from the input of quantitative data obtain from Nepalese commercial banks. It shows the major finding of the study. The researcher discuss and analyze the major finding with previous studies and identify the similarities and contradiction in discussion section.

Results**Descriptive Summary****Table 2***Descriptive Statistics of the Variables*

	Mean	Std. Deviation	Minimum	Maximum
MPS	446.1232	295.0525	147	2295
P/E Ratio	18.55704	8.688861	4.277561	64.67
D/Y Ratio	5.102168	2.904241	0	16.45871
ROA	0.015115	0.004778	0.006456	0.027654
ROE	0.132077	0.039193	0.055337	0.26122
BVPS	178.7225	41.43063	112.2743	298.4496
OER	15.41993	27.37057	2.918626	240.9009
OSR	1.232226	0.710575	0.448477	6.909417
LAT	0.772283	0.134194	0.00578	0.892665
DPR	21.11121	15.64746	0	110.52
AU	0.021258	0.006385	0.009396	0.037368
GDP	3901609	568651.2	3077145	4851625
IF	4.75	0.8437	3.6	6.2

Table 2 shows that average market price per share is Rs 446.1232 with standard deviation of Rs 295.0525. Maximum stock price is Rs 2295 and minimum stock price is Rs 147 during the period of study. Price earnings ratio and average dividend yield ratios are 18.55704 and 5.102168 respectively. The average return on assets and return equity are 1.5115 and 13.2077 percent with standard deviation of 0.4778 and 3.9113 percent respectively. The average operating efficiency ratio, self-sufficiency ratio, loan to total assets ratio are 15.41, 1.2322 and 0.7722 times respectively during the period of study. The higher amount of book value per share is Rs 298.4496 and the lower amount is Rs 112.2743. The average assets utilization ratio is 2.12 percent with standard deviation of 0.6385. The inflation rate reach to 6.2 percent during the period of study. The average inflation rate is 4.75 percent.

Relationship between Variables

Bivariate correlation coefficients is used to identify the degree of the relationship between the dependent and independent variables which are presented in Table 3.

Table 3

Relation between variable

	OER	AUR	ROE	ROA	BVPS	LAT	GDP	IF	MPS	PER	DYR	OSR	DPR
OER	1												
AUR	.332**	1											
ROE	0.029	.687**	1										
ROA	.360**	.959**	.710**	1									
BVPS	0.060	.219*	0.060	.196*	1								
LAT	-0.050	-.233*	-.247**	-.252**	-0.012	1							
GDP	-0.171	-.515**	-.396**	-.527**	0.052	.350**	1						
IF	-0.029	-.244**	-0.170	-.231*	-0.020	0.030	.219*	1					
MPS	0.030	.247**	.274**	.244**	.270**	.284**	-.244**	-.201*	1				
PER	-0.120	-.206*	-.195*	-.200*	-0.013	-0.063	-0.016	-.200*	.757**	1			
DYR	0.041	0.097	-0.057	0.121	-0.068	0.071	0.082	0.168	-.192*	-.264**	1		
OSR	0.016	.579**	.365**	.486**	0.089	-0.146	-.332**	-0.167	.184*	-0.054	-0.003	1	
DPR	0.073	.365**	.223*	.383**	.212*	-0.177	-.198*	-0.067	.669**	.399**	.510**	.193*	1

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

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

Table 3 shows the relationship between dependent and independent variables during the period of the study. Assets utilization ratio has positive relationship with market value per share at 1 percent level of significant. But it has negative relationship with price earnings ratio at 5 percent level of significant. Return on equity has positive relationship with market value per share but negative relationship with price earnings ratio and dividend yield ratio. Return on assets and book value per share have positive relationship with market value per share at significant level of 1 percent. But, the growth rate of gross domestic product and inflation rate have negative relationship to the market value per share. There is negative relationship between assets utilization ratio, return on equity, return on assets and inflation rate with price earnings ratio at 1 percent level of significance.

Overhead efficiency ratio has positive relationship with market price per share and dividend yield ratio but it has negative relationship with price earnings ratio. The result indicates that the increase in non-interest income to non-interest expenses helps to increase market value. Operational self-sufficiency ratio has negative relationship with market price per share and dividend yield ratio which is against the theoretical finding.

Influence of Bank specific factors, Macroeconomic Variables on Value of Banks

The regression analysis has been conducted to identify the influence of return on assets, return on equity, book value per share, overhead efficiency ratio, operational self-sufficiency ratio, assets utilization ratio, loan and advance ratio, dividend payout ratio on market value per share, price earnings ratio and dividend yield ratio.

Table 4

Regression Result of Market Value per share

	Unstandardize d Coefficients		Standardized coefficients	t	Sig.	Co-linearity statistics	
	β	std. error	beta			Tolerance	VIF
(Constant)	749.931	244.321		3.069	0.003		
OER	0.099	0.072	0.099	1.366	0.175	0.722	1.386
OSR	0.071	0.081	0.071	0.871	0.386	0.571	1.751
AUR	0.045	0.249	-0.045	-0.182	0.856	0.061	16.371
ROE	0.315	0.095	0.315	3.314	0.001	0.419	2.384
ROA	0.438	0.246	-0.438	-1.779	0.078	0.063	15.981
DPR	0.659	0.068	0.659	9.651	0.000	0.813	1.230
BVPS	0.196	0.066	0.196	2.987	0.003	0.878	1.139
LAT	0.144	0.067	-0.144	-2.154	0.033	0.849	1.178
GDP	-0.126	0.077	-0.126	-1.626	0.107	0.633	1.579
IF	-0.165	0.064	-0.165	-2.579	0.011	0.921	1.086
R ² =0.583, AdjR ² =0.544; F = 199.139; P value=0.000							

Table 4 shows the regression result of overhead efficiency ratio, overhead self-sufficiency ratio, assets utilization ration, return on equity, return on assets, dividend payout ratio, book value per share, loan to total assets ratio, gross domestic product and inflation rate on market value per share of commercial banks.

The beta coefficient of return on assets, return on equity, book value per share and dividend payout ratios are positive at significant level of 5 percent which indicates that these variable positively influence the market value per share. The beta coefficient of GDP and Inflation rate is negative at significant level of 10 percent which indicates that growth rate of GDP and

inflation rate have negative influence on market price per share. The overhead efficiency and self-sufficiency ratio have positive insignificant influence on market price per share.

Overall, the model has R-squared (R²) value of 0.583, indicating that it explains a large portion of the variance in the dependent variable. The adjusted R-squared (AdjR²) is also 0.544, suggesting that the model is a good fit. The F-test is highly significant with a p-value of 0.000, indicating that the overall model is statistically significant. Additionally, multi-collinearity is a concern for some variables, as indicated by low tolerance and high VIF values.

Table 5
Regression Result of Return on Price Earning Ratio

	Unstandardized Coefficients		Standardized coefficients		t	Sig.	Co-linearity statistics	
	β	std. error	beta				Tolerance	VIF
(Constant)	51.393	8.628			5.956	0		
OER	-0.004	0.087	-0.004		-0.041	0.967	0.722	1.386
OSR	0.068	0.098	0.068		0.694	0.489	0.571	1.751
AUR	-0.316	0.299	-0.316		-1.059	0.292	0.061	16.371
ROE	-0.072	0.114	-0.072		-0.629	0.531	0.419	2.384
ROA	-0.222	0.295	-0.222		-0.753	0.453	0.063	15.981
DPR	0.556	0.082	0.556		6.799	0.000	0.813	1.230
BVPS	-0.019	0.079	-0.019		-0.244	0.808	0.878	1.139
LAT	-0.055	0.080	-0.055		-0.691	0.491	0.849	1.178
GDP	-0.113	0.093	-0.113		-1.221	0.225	0.633	1.579
IF	-0.266	0.077	-0.266		-3.461	0.001	0.921	1.086
R ² =0.4, AdjR ² =0.345; F = 7.264; P value=0.000								

Table 5 shows that the dividend payout ratio has positive influence on price earnings ratio at 1 percent level of significance. Inflation rate has negative influence on price earnings ratio at 1 percent level of significant. However, there is negative influence of assets utilization ratio, return on equity, return on assets, book value per share, loan to total assets and growth rate of GDP at insignificant level. Overhead efficiency ratio has negative beta value which indicate that this ratio negatively influence on price earnings ratio at insignificant level. Overhead self-sufficiency ratio has positive beta with insignificant level which indicates that this ratio positively influence the price earnings ratio. The loan to total assets ratio, growth rate of gross domestic product, and inflation rate have negative beta which indicate that increase in these ratio decrease the price earnings ratio.

The F-test is highly significant with a p-value of 0.000, indicating that the overall model is

statistically significant. Additionally, multi-collinearity is a concern for some variables, as indicated by low tolerance and high VIF values.

Table 6

Regression Result of Dividend Yield Ratio

	Unstandardized Coefficients		Standardized coefficients	t	Sig.	Co-linearity statistics	
	β	std. error	beta			Tolerance	VIF
(Constant)	-2.267	2.854		-0.794	0.429		
OER	-0.068	0.086	-0.068	-0.792	0.430	0.722	1.386
OSR	-0.066	0.096	-0.066	-0.688	0.493	0.571	1.751
AUR	0.029	0.295	0.029	0.097	0.923	0.061	16.371
ROE	-0.276	0.112	-0.276	-2.451	0.016	0.419	2.384
ROA	0.342	0.291	0.342	1.176	0.242	0.063	15.981
DPR	0.566	0.081	0.566	7.011	0.000	0.813	1.230
BVPS	0.239	0.078	-0.239	-3.079	0.003	0.878	1.139
LAT	0.112	0.079	0.112	1.415	0.160	0.849	1.178
GDP	0.179	0.092	0.179	1.960	0.053	0.633	1.579
IF	0.185	0.076	0.185	2.440	0.016	0.921	1.086

$R^2 = 0.41$ $AdjR^2=0.352$; $F = 7.646$; $P \text{ value}=0.000$

Table 6 shows that the return on assets, dividend payout ratio, book value per share, growth rate of gross domestic product, inflation rate have positive beta coefficient with less than 5 percent level of significance which indicates that these variables positively influence the dividend yield ratio in Nepalese commercial banks. Increase in book value, profitability and optimum use of assets positively influence the dividend yield ratio. However, the return on equity has negative beta coefficient and its impact is insignificant on dividend yield ratio. The overhead efficiency ratio and overhead self-sufficiency ratio have negative beta which indicate that these variables negatively influence dividend yield ratio. Loan to total assets ratio has positive beta which indicate that expanding loan positively influence on dividend yield ratio.

The F-test is highly significant with a p-value of 0.000, indicating that the overall model is statistically significant. Additionally, multi-collinearity is a concern for some variables, as indicated by low tolerance and high VIF values.

Discussion

This study identifies the relationship and influence of bank specific factors and macro-economic variables on market value by using the secondary data of Nepalese commercial banks from

the period of 2016/17 to 2021/22. The average market value, return on assets, return on equity and earning per share of Nepalese commercial bank is higher than Croatian banks (Pavkovic et al. 2018) which indicates that the Nepalese commercial banks are more cost efficient. The positive profitability indicates that Nepalese commercial banks are more efficient which helps to maintain efficient market price in a market.

There is positive significant influence of loan to total assets on market price per share but insignificant influence on dividend yield ratio. This result is similar with the finding of (Menicucci & Paolucci, 2016; Sufian, 2012). This results suggests that if the bank invest large amount of deposit on diversified portfolio loan which increase the interest income, profitability and the market value of share. However, this result is against with finding of Sinha and Sharma (2016) because if the management invest loan into risk portfolio increases the amount of provision for loan losses which ultimately decrease the profitability and market value of the firm. It reduces the confidence of investors to invest into share of bank.

The operating efficiency ratios has positive influence on market value per share but negative influence on dividend yield ratio. This finding is similar with Dijalilov and Piesse (2016), and Trujillo- Ponce (2013). This result suggests that if the bank reduces the operating cost which ultimately increase the profitability and market value per share. If the bank enlarge the non interest earning activities which positively influence on market value. The result suggests that banks that focus and control operating costs would naturally reduce the operating expenses ratio, resulting in higher firm value.

Return on assets and assets utilization ratio have a significant positive impact on market price per share and dividend yield ratio. This result is similar with finding of Gwachha (2019) and Samuel et al (2019) which indicates that optimum utilization of assets and increase the size of banks and transactions help to increase the market price per share. If the bank increase profit with lower amount of loan used which increase the market value. Effective loan distribution decision to deficit units also increase the profitability market price. The higher concentration of bank provide higher level of profit and increase the value of bank.

The growth rate of domestic product and inflation rate have negative influence on market value per share which is against theoretical assumption. But, these macroeconomic variables have positive influence on dividend yield ratio. This result is consistent with Fama (1981, 1982), Gallagher and Taylor (2002) Geske and Roll (1983), Apergis and El, (2002), Omran and Poton (2001), Crosby (2001), Fama & Schwert (1977), Gjerde et al. (1999) in developed country studies as well as emerging country studies. Higher inflation rate decrease the saving and demand of share in market. However, this finding is against of Fisher hypothesis and this result is against with the finding of Samarakoon (1996), Firth (1981) and Bilson et al. (2001).

Dividend payout ratio has positive significant relation with stock prices. This result is same with Myer and Bacon (2004), Nishat and Irfan (2003), Asghar et al. (2011). This positive relation shows that shareholders prefer those banks who has high DPR because when companies pay dividend they will retain this will positively affect the stock price. The results of this study

support the results of research by Dewangga and Sudaryanto (2016), Devi, Mardani, and Salim (2017) which state that the Dividend Payout Ratio (DPR) variable has a positive and significant effect on stock prices.

Return on equity has significant positive relationship with stock prices. Habib et al. (2012), Liu and Hu (2005) and Raballe and Hedensted (2008) also found positive relation of ROE with stock prices. This positive relation between ROE and stock prices shows that when management are performing efficiently and utilizing the resource powerfully which gives good returns on investment it will affect stock price positively otherwise it has negative effect on stock price. However, Ahmed (2014) found that negative influence of return on equity on stock price. If the bank do not provide dividend to the shareholders even in case of higher earnings which negatively influence on market value. Book value per share has significant influence on market price per share which indicates that the investor prefer to invest their amount which has higher amount of book value. The result is consistent with the finding of (Menicucci & Paolucci, 2016; Sufian, 2012). Investors want cash and stock dividend from their investment in Nepalese banking sector because dividend payout ratio is positively influence on market price per share. This result is against with dividend irrelevance theory.

Conclusion

The objective of the study is to explore the relationship and influence of bank specific factors, macro- economic variables on market value of Nepalese commercial banks. The research concludes that dividend payout ratio, operating efficiency ratio, return on equity, return on asset, book value per share and loan to total assets ratios are most influencing factors contributing to market value per share. It is also concluded that dividend payout ratio, book value per share, gross domestic product, inflation rate and loan to total assets are the most influencing factors to dividend yield ratio of Nepalese commercial banks. Dividend payout ratio and inflation rate have positive significant influence on price earnings ratio.

The research indicates that banks with higher loan growth and increase in size help to maintain efficient market value. However, careful selection of lending areas are essential because non-performing loan increase the provision amount, reduce profitability and increase market risk. Higher non-interest income to non-interest expenses, operating revenue to operating expenses are major dimension to increase the market value. Book value per share and dividend payout ratio indicates that the investors are serious with net worth of bank and regular return from the investment. Cash and stock dividend are major determinants of stock price. The empirical evidence shows that optimal use of assets, increasing the operating income and economic use of resources which enhances the market value of the bank.

The managerial insights of the study might be that the bank could increase value of share through mix of operating efficiency, cost reduction, service quality and appropriate dividend policy. The strategy might be the bank to increase operating efficiency through careful selection of lending, increase net interest income and operate the activities which increase the non-interest income also. Nepalese commercial bank could provide attractive cash and stock dividend to the

investors for increasing market price per share.

The study uses only some dimension of bank specific factors and macro-economic variables but there are also others quantitative and qualitative dimensions which influence the market value. So, there is a lot of room for future studies to include more variable for improving the study's limitations. Fixed effect model, random effect model, error component model, random parameters model, dynamic panel model, robust panel model and structural equation model are not used during the period of panel data analysis. Future studies attempts to identify the causal linkages between bank specific factors, service quality and value of the banks using a structural equation modelling (SEM) framework.

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