FIRM SPECIFIC FACTORS AND SHARE PRICE OF COMMERCIAL BANKS IN NEPAL

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ABSTRACT

This study examines the effect of firm specific variables on the share price of thirteen commercial banks in Nepal over the period of 2010/11 to 2021/22 using a set of dependent and independent variables. This study has adopted descriptive and causal comparative research design. Earnings per share, dividend per share, price earnings ratio, return on assets, size are the independent variables in this study, while market share price is the dependent variable. Based on empirical analysis, variables such as earning per share, dividend per share and price earning ratio have a positive effect on the share price. Similarly, the results indicated that among all the firm specific variables, dividend per share is the most important determinants of stock returns in the Nepalese stock market.

Key Words: Stock Prices, Earning per share, Dividend per share, Price earning ratio, Return on assets, Firm Size, Commercial Bank.

1. Introduction

The capital market in Nepal is at an early stage of development, but it represents an opportunity for individual investors to achieve high capital gains. Emerging markets are considered to be volatile and risky, but also lucrative capital markets. In the development process of each economy and economy that depends on the growth of its financial sector, the financial sector of each country plays a key role. The capital market provides a path for the users and suppliers of financial resources to carry out investment activities, which are an important player in the financial sector (Menike et al., 2015). Investing in stock is one of the key areas of investment that has the potential to provide significant returns to investors. The factors affecting share prices are always a matter of debate, and financial experts have different opinions about the stocks prices. The share prices would be ascertained in the efficient market by using different

fundamental variables such as EPS, payout ratios, dividend per share, firm size and dividend yield etc. Future share prices are anticipated by calculating the current fair value of the stock and the forecasted value of the various ratios. If the current share price is not equivalent to the firm's fair worth, the stock is underpriced or overpriced. Consequently, the market price falls towards the fair value of the firm. Understanding different variables and their effects on stock prices are crucial for investors since it will aid them in making judgments about stock investments (Srinivasan, 2012). The returns on such investments depend on the performance and price variations in each stock (Bhattarai, 2014). Similarly, the share price has a significant impact on investors' stock investment decisions (Uddin et al. 2013).

In this connection, the main research question in this study as follow: Do firm specific variables affect share price of Nepalese commercial banks? Factors that affect stock prices are numerous and inexhaustible. The research aims to examine the key internal determinants of the company and their impact on the prices of shares of companies listed on the Nepal Stock Exchange (NEPSE). Such findings represent a strategic analysis that helps analysts in predicting future value of the company. This implies that investors will be able to make wise investment decisions if they consider these determinants which have emerged as the significant contributors to the market price of shares in Nepal.

2. Literature review

Plenty of published studies deal with the relationship between financial statements data and the stock market. There are at least four reasons why there is a huge demand for capital markets research in Accounting and for the popularity of these research: (i) fundamental analysis and valuation; (ii) capital market efficiency tests; (iii) role of accounting in making contracts and in the political process; and (iv) disclosure regulation (Kothari, 2001).

Almumani (2014) identify the quantitative factors that influence share prices for the listed banks in Amman Stock Exchange over the period 2005-2011. Appertaining to the empirical results, the variables earning per share, book value per share, price earnings ratio, and size are significant determinants of share prices for all the banks under consideration. Thus, in his study, the author succeeds to prove that the study of financial factors is highly beneficial for the investors in Jordan, as these factors bear strong explanatory power and hence, can be used to make authentic predictors of future stock prices.

Chughta, Azeem and Ali (2014) were interested into the relation between chosen companies' distinctive factors and stock prices. As per the analysis, dividend per share and earning per share are found to have a positive and significant effect on share prices of companies.

Banz (1981) concluded that a negative relationship exists between firm size, measured by market value of equity, and common stock returns. Roll (1981) has provided an explanation for the size effect by stating that smaller firms are riskier and therefore deserve higher expected returns. Keim (1983) documented that there is always negative relation between abnormal returns and size and that relation is more pronounced in January than in any other months.

Basu (1977) concluded that the stocks with high earnings to price ratio (or, low P/E ratios) earned significantly higher returns than stock with low earnings to price ratio. Similarly Ball (1978) documented that E/P contains information on all factors not explained by the CAPM. Fama and French (1992) reported an earnings yield effect, which lost its statistical significance when used together with factors such as book to market ratio or firm size. Davis (1994) indicated that earnings yield has the explanatory power in both two-parameter regressions and in multiple regressions that included combination of various variables such as beta, size and price. Giannetti (2007) showed that earnings price ratio is effective in predicting stock returns.

Issah and Ngmenipuo (2015) have found a positive linear relationship between ROA, ROE, ROI and the market price of shares of banking financial institutions quoted on the Ghana Stock Exchange (GSE). Furthermore, the positive signs acquired for the independent variable coefficients are in line with the theoretical framework.

Chowdhury et al. (2019), they found that the following determinants (Earning price share, Firm size, net asset per value, and dividend payout) affect the share prices. A study conducted by Robbetze & Harmse (2017), and found a strong link between EPS and share prices. The research conducted on developed markets stated a significant relationship between firm-specific factors and stock returns (Cooper et al. 2003; Malhotra & Tandon, 2013). The above-mentioned studies identified firm-specific variables such as EPS, DPS, BV, FS, dividend yield, etc. as influencing factors for the share price.

M & Menaje (2012) found that EPS has a high positive relationship with stock prices, but ROA has a weak negative relationship with stock prices. In addition, Khan (2012) revealed that ROA, cash dividend, and retention ratios had a significant association with share prices. Khan et al. (2011) found dividend yield, ROE, and profits per share have a positive relationship with share prices; Sharma (2011) also investigates the nexus of share prices with the following factors (DPS, BV per share, EPS, dividend payout ratio, PE ratio, size). Findings revealed a significant impact of DPS, and EPS on share prices. Similarly, Malakar & Gupta (2002) investigated the nexus between share prices and determinants. Findings show a strong correlation of EPS with stock prices and are considered a key determinant of share prices.

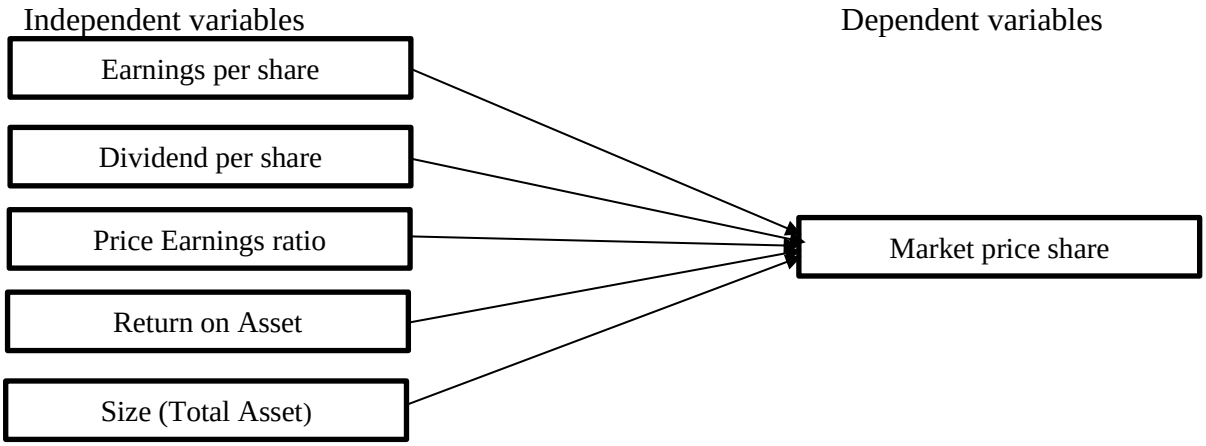
Numerous studies in different capital markets and different observation times give various results. Although there are key factors that affect stock prices in most countries, generalization of results is not possible due to differences in business environment, business regulations, political situation and the number and type of investors. It can be concluded that the existing literature advocates the belief that the stock price change is due to certain internal aspects of the company.

3. Research methodology

This study examines the effect of firm specific variables on the share price of commercial banks in Nepal over the period of 12 years (2010/11-2021/22). This study has adopted descriptive and causal comparative research design. Earnings per share, dividend per share, price earnings ratio, return on assets, size are the independent variables in this study, while market share price is the dependent variable.

There are altogether 26 commercial banks as per the annual report of Nepal Rastra Bank (2022). Therefore, population of this study is 26 commercial banks of Nepal. Out of them, 156 observations from 13 commercial banks whose 12 fiscal year i.e. FY 2010/11 to FY 2021/22 has been taken as sample for this study. The banks selected for the study are: Citizens Bank International Ltd., Everest Bank Ltd., Himalayan Bank, Kumari Bank, Nepal Bank, Nepal Investment Bank, Nepal SBI Bank, NMB Bank, Laxmi bank, Prime Bank, Siddhartha Bank, Sunrise Bank limited and Standard Chartered Bank. Convenience sampling method is used in choosing the banks for the study. The required data are retrieved from the annual report of respective banks.

Research Framework



The Model

$$\text{Ln MPS} = \beta_0 + \beta_1 EPS + \beta_2 DPS + \beta_3 PE + \beta_4 LnSize + \beta_5 ROA + e$$

Where, LnMPS= Natural logarithm Market price per share, EPS= Earning per share, DPS= Dividend per share, PE= Price earning ratio, ROA= Return on asset, β1, β2, β3, β4, = Intercept of respective independent variables & e = Error term

Hypotheses

H_1: There is significant effect of EPS on MPS of commercial banks

H_2: DPS has significant effect on MPS of commercial banks

H_3: There is significant effect of P/E ratio on MPS of commercial banks

H_4: Firm size has significant effect on MPS of commercial banks

H_5: ROA has significant effect on MPS of commercial banks

4. Presentation and analysis of data

Descriptive statistics

This shows descriptive statistics - mean, standard deviation, minimum and maximum values for the variables associated with 13 sample banks for the period 2067/68 to 2078/79. MPS refers to Market price per share, EPS refers to earning per share, DPS refers to dividend per share, PE refers to price earning ratio, LN size refers to firm size, ROA refers to return on assets, N is the number of observations

Table1: *Descriptive data summary of variables*

	LNMPS	EPS	DPS	PE	ROA	LNSIZE
Mean	6.0674	24.5910	16.1057	23.1276	1.4480	24.8433
Median	6.0672	21.615	15.79	19.055	1.465	24.8677
Maximum	8.1271	98.88	70	242.54	2.39	26.5701
Minimum	4.6728	0.55	0	10.07	0.05	21.34
Std. Dev.	0.5867	14.1041	10.0843	20.7903	0.4052	0.8476
Obser.	156	156	156	156	156	156

Source: Author's calculations from E views 12 SV, 2023

Table 1: shows that there are 156 observations for dependent variables as well as independent recorded over the period of 2067/68 to 2078/79 for thirteen commercial banks of Nepal. Natural log mean of Market price per share is fluctuated in-between 4.67% with 8.12% with average 6.06%

Table clearly shows that earning per share has minimum value of Rs. 0.55 and a maximum of Rs. 98.88 leading to the mean value of 24.59 percent. The dividend per share has a minimum value of 0 to a maximum of Rs. 70 with an average of Rs. 16.10. The price earning ratio of selected banks during the study period is noticed to be 23.13 times with minimum ratio of 10.07 and a maximum of 242.54 times. The return on asset has a minimum value of 0.05 percent and a maximum of 2.39 percent leading to the mean of 1.44 percent. Natural log mean of Size is 24.84, which fluctuate in-between 21.34 with 26.57 with standard deviation 0.84

Normality Test

Table 2: *Normality Test of variables*

Jarque Bera	Probability
0.6254	0.7314

Source: Author's computation from E-views 12 SV, 2023

Here, Jarque- Bera Test is used to check the normal distribution of data. The probability of the Jarque-Bera 0.7314 > 0.050 proved that data are normally distributed.

Correlation analysis

Table 3: *Correlation Matrix of Variables*

Correlation Probability	LNMPS	EPS	DPS	LNSIZE	PE	ROA
LNMPS	1.					

EPS	0.7438	1				
	(0.0000)**					
DPS	0.6020	0.3962	1			
	(0.0000)**	(0.0000)**				
LNSIZE	0.1125	0.0883	0.0745	1		
	(0.1618)	(0.2729)	(0.3553)	--		
PE	0.0621	-0.1527	-0.0041	-0.1656	1	
	(0.4411)	(0.0570)	(0.9594)	(0.0388)*	-	
ROA	0.4990	0.6235	0.4173	0.0418	-0.3696	1
	(0.0000)**	(0.0000)**	(0.0000)**	(0.6036)	(0.0000)**	-

Source: Author's calculations from E views 12 SV, 2023

**. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed); the number in parenthesis indicates the p value.

This presents the bivariate Pearson correlation coefficients between share price and bank specific variables. The correlation coefficients are based on the data from 13 sample banks for the period 2010/11 to 2021/22. The result shows there is positive relationship of market price per share with earning per share and dividend per share which indicates that higher the earning per share and dividend per share, higher would be the market price of share. Similarly, the study observed positive relationship of market price per share with price earning ratio and return on assets with market price of share which reveals that higher the price earning ratio and return on assets, higher would be the market price of share. Similarly, the positive relationship between size and market price of share reveals that an increase in the size leads to an increase in the market price of share.

Breusch Pagan test

Table 4: *Breusch-Pagan Langrange Multiplier Test*

	Cross Section	Time	Both
Breusch- Pagan	4.1204	82.1880	86.3085
Prob.	(0.0424)	(0.0000)	(0.0000)

Source: Author's computation from E-views 12 SV, 2023

Breusch-Pagan Langrange Multiplier test is used to select a suitable model for Panel data analysis. The test has the following hypothesis:-

H_0: Pooled OLS method is better than Fixed Effect and Random Effect Model.

H_1: Pooled OLS method is not better than Fixed Effect and Random Effect Model.

Here, the p-value is 0 which is less than 0.05. So, Null hypothesis is rejected. It means that Pooled OLS method is not better than Fixed Effect and Random Effect Model.

Hausman Test

Table 5: *Hausman Test*

Test Summary	Chi Sq. Statistic	Chi Sq. d.f	Prob.
Cross section random	5.4238	5	0.3664

Source: Author's computation from E-views 12 SV, 2023

The p-value of this test is 0.3664 which is more than 0.05; hence, null hypothesis is accepted. This concludes that random effect model is appropriate for the study.

Regression analysis

The regression of bank-specific variables on share price is presented as:

This shows regression analysis result of variables of market share price. Ln MPS = β_0+ β_1EPS + β_2DPS + β_3PE + β_4Size + β_5ROA+ e

To compare the results of fixed effect and random effect approaches, the Hausman specification test is used to select the suitable model for equation. The Hausman test read as chi-square statistic value with p value (1) more than 0.05, this suggests that the random effect approach is suitable. Thus, random effect approach is used for this equation.

Table 6: *Panel regression results of Market share price (MPS)*

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	4.7255	0.8336	5.6685	0.0000
EPS	0.0182	0.0033	5.4602	0.0000
DPS	0.0198	0.003	6.6052	0.0000
LNSIZE	0.0125	0.0323	0.3887	0.6981
PE	0.0040	0.0014	2.7678	0.0064
ROA	0.1158	0.0978	1.1838	0.2385
Model Summary				
R- squared	0.7480	Adjusted R- squared	0.7170	
F-statistic	24.1049	Durbin Watson stat	1.3771	
Prob.	0.00000			

Source: Author's computation from E-views 12 SV, 2023

For 156 observations, 13 commercial banks from 2010/11-2021/22, as illustrated in the share price, among the explanatory factors: Earning per share similar with Shrestha, P.M., & Lamichhane, P. (2022), dividend per share and price earning ratio compared with Nazir et al. (2022) and Malhotra & Tandon (2013) are found to have statistically significant and positive effect on Market price per share. Similarly size and return on assets are found to be statistically insignificant effect on Market price per share.

The null form of the test is DW > R2, which states that the Durbin-Watson result should not be greater than the R-squared figure. As seen in the analysis results, DW = 1.37 and R2 = 0.75, rejecting the null hypothesis, indicating that the regression estimate result is valid. R-squared for the regression is 0.75 which implies that the variables in the current study can explain 75 percent of the variations in the MPS can be explained by explanatory variables and remaining 25 percent of variations of the MPS under investigation can be explained by other factors not included in the model.

Summary of Hypotheses

The effect of independent variables on the dependent variable has been analyzed, and the results of hypothesis testing have been determined. They are summarized and illustrated below:

Table 7: *Summary of hypotheses*

Hypothesis	P- value	Remarks
H_1: There is significant effect of EPS on MPS of commercial banks	0.0000	Accept
H_2: DPS has significant effect on MPS of commercial banks	0.0000	Accept
H_3: There is significant effect of P/E ratio on MPS of commercial banks	0.0064	Accept
H_4: Firm size has significant effect on MPS of commercial banks	0.6981	Reject
H_5: ROA has significant effect on MPS of commercial banks	0.2385	Reject

Source: Authors' Own Calculation

5. Conclusions and recommendations

The research was conducted in order to test the influence of firm specific variables on the prices of the shares of the observed commercial banks in the period from 2010/11 to 2021/22. Based on empirical analysis, variables such as earning per share, dividend per share and price earning ratio have a positive effect on the share price of commercial banks. Similarly, the results indicated that among all the firm specific variables, dividend per share is the most important determinants of stock returns in the Nepalese stock market.

However, this research has certain limitations. In case of the selected banks from the Financial Sector, the research only takes into consideration companies' specific factors and ignores impact of macro-economic factors on stock price. Also, the research was conducted on a set of data obtained from the financial statements. Therefore, the reliability and accuracy of these data will affect the applicability of the research results.

Future research should take into account macro and micro factors as well as companies from other sectors to define factors influencing the stock price.

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