Determinants of Stock Price Volatility in Nepalese Enterprises

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Abstract

The study examines the determinants of stock price volatility in Nepalese enterprises. Coefficient of variation of market price per share and market capitalization are selected as dependent variables. The selected independent variables are interest rate, inflation rate, gross domestic product, money supply, financial leverage, company size and earnings per share. The study is based on secondary data of 5 commercial banks, development bank and manufacturing companies with 120 observations for the study period from 2015/16 to 2022/23. The data were collected from the annual reports of the respective companies, annual report of Nepal Rastra Bank (NRB) and the website of Merolagani. The correlation coefficients and regression models are estimated to test the significance and importance of firm specific and macroeconomic factors on the stock price volatility in Nepalese enterprises.

The study showed that interest rate has a negative effect on coefficient of variation of market price per share (CVMPS) and market capitalization (MCAP). It means that increase in interest rate leads to decrease in CVMPS and MCAP. Similarly, earnings per share have a negative effect on CVMPS and MCAP. It indicates that increase in earnings per share leads to decrease in CVMPS and MCAP. However, money supply has a positive impact on CVMPS and MCAP. Moreover, leverage has a negative effect on CVMPS and MCAP. It indicates that increase in leverage leads to decrease in CVMPS and MCAP. However, money supply has a positive impact on CVMPS and MCAP. It means that higher the money supply, higher would be the CVMPS and MCAP. In contrast, gross domestic product has a negative impact on CVMPS. It shows that larger the gross domestic product, lower would be the CVMPS. Moreover, company size has a positive impact on MCAP. It means that larger the company size, higher would be the MCAP. Likewise, gross domestic product has a positive impact on MCAP. It indicates that larger the gross domestic product, larger would be the MCAP. In contrast, inflation rate has a negative impact on CVMPS. It shows that increase in inflation rate leads to decrease in CVMPS.

Keywords: coefficient of variation of market price per share, market capitalization, interest rate, inflation rate, money supply, gross domestic product, leverage, earnings per share, company size

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1. Introduction

With the advent of information technology, especially the internet-based applications in the capital markets at the global level, information describing the macro and microenvironment of economies is readily accessible. This flow of information has perhaps, made the capital markets relatively more efficient as the stakeholders are better placed to access and act in accordance with the changing dynamics of environment (Mazzucato and Semmler, 2002). According to Nazir et al. (2010), stock market volatility is the fluctuation in the price of broad stock market indexes over a defined period. The common stock volatility is a benchmark for measuring risk. It indicates the changing pace in the stock price over a determined period; the more considerable volatility implies that the possibility of gain or loss is higher in short-term. Stock price volatility refers to the degree of variation in a trading price series over time. It is a key aspect of financial markets and is influenced by a variety of factors. Indicators such as GDP growth, unemployment rates, inflation, and consumer confidence can impact market volatility. Unexpected economic data releases may lead to sudden market movements.

Mehmood et al. (2019) examined the effect of corporate dividend payout policy on stock price volatility in Pakistan Stock Exchange. The study showed a positive relationship between stock price volatility and dividend payout ratio. In addition, the results showed that earnings volatility and leverage had negative relationship with stock price volatility. Other independent variables including assets growth and size have positive relationship with stock price volatility. Company earnings announcements can have a significant impact on stock prices. Positive or negative surprises in earnings can lead to rapid and large price movements. Changes in interest rates, which are often influenced by central bank policies, can impact stock prices. Higher interest rates may lead to lower stock prices and increased volatility. According to Gathogo *et al.* (2017), interest rates have a positive influence on the market capitalization in the Agricultural and Commercial sectors and a negative influence on the Investment sector. Similarly, Hussain *et al.* (2016) examined the macroeconomic determinants of stock price variability in Pakistan. The study found that the foreign direct investment, interest rates, export and unemployment rate have significant and negative impact on KSE-100 index, while money supply has found to be a significant and positive determinant of stock prices. Wibowo and Khoirudin (2022) examined the effect of interest rates, inflation, rupiah exchange rate, money supply, and exports on the

composite stock price index (CSPI) in Indonesia. The findings of this study indicated that interest rates, money supply, and exports have a positive and significant effect on the composite stock price index. Moreover, Rupiah exchange rate has a negative sign and a significant effect on CSPI. However, inflation has no significant effect on the composite stock price index. Nijam et al. (2015) analyzed the effect on the stock market movement of five selected macro-economic variables, including the exchange rate, inflation rate, interest rate, crude oil price, and foreign portfolio investment. The findings showed that foreign exchange rate, interest rate, inflation rate, crude oil, and foreign portfolio investment are all significant in determining the performance of equity market capitalization.

Nazir et al. (2010) investigated the role of corporate dividend policy in determining the volatility in the stock prices in Pakistan using a sample of 73 firms from Karachi Stock Exchange (KSE) indexed (KSE-100) firms for the period of 2003-2008. The results found that dividend policy has a strong significant relationship with the stock price volatility in KSE. Kalam (2020) examined the effects of macroeconomic variables on the stock market return. The selected macroeconomic variables were Gross Domestic Product (GDP), Interest rate (IR), Inflation (INF), Exchange Rate (ER) and Foreign direct investment (FDI). The study analyzed twenty years secondary variables from 2000-2019 through multiple regression analysis and test the ARDL test in long and short run coefficient. The analysis indicated the GDP has a significant and positive impact on the stock market return. Furthermore, IR, INF, ER, and FDI effects the Malaysia Stock Market Return which may also portrait on to the long and short run coefficient. Nazir and Nawaz (2012) assessed the relationship between corporate payout policy and market capitalization by studying payout ratio and dividend yield as measures of payout policy and controlling other variables of size, growth, EPS, leverage, GDP growth, and interest rates. The results showed that measures of corporate payout policy, dividend yield and payout ratio have strong negative correlation with market capitalization. Furthermore, control variables of size and leverage have positive significant correlation with market capitalization. Overall results suggested that the corporate payout policy has significant impact on market capitalization in Pakistan. Shahid *et al.* (2020) assessed the impact of dividend policy on stock price volatility in the automobile sector of Pakistan. Dividend policy is a deliberate managerial action to share the portion of earnings to shareholders in the form of cash dividend, bonus or script dividend, and repurchased stock. Paying dividends is extremely important for a company's

valuation which practically translates to capital gain in share prices, and wealth maximization of shareholders. The empirical results showed that earnings per share (EPS) and dividend per share (DPS) have significant positive impact, but dividend yield (DY) and dividend payout ratio (DPR) have negative insignificant impact on share prices. Levine (1991) argued that stock market is important for growth because savers do not like to relinquish control of their savings for long periods while many profitable investments require a long-run commitment of capital. The structure of the market, including the presence of high-frequency trading, algorithmic trading, and market-making activities, can impact volatility. Changes in regulatory environments, tax policies, or other government interventions can impact stock prices and market volatility. Higher trading volumes often accompany higher volatility. Lower liquidity in the market can result in larger price swings. Political instability, conflicts, and geopolitical events can create uncertainty and drive stock prices to fluctuate.

In the context of Nepal, Gautam and Bista (2019) examined the factors affecting the share price of Nepalese insurance companies. The result showed that firm specific variables like earnings per share, divided per share, price earnings ratio, book value per share, return on assets and size are the major determining stock price in context of insurance companies in Nepal. Among the variables, size is found to be the most important determining variable that affects the share price. Among the macro-economic variables such as gross domestic product, inflation and money supply, gross domestic product is a major variable that affect the share price. Likewise, Acharya and Pradhan (2019) assessed the effect of firm specific and macro-economic variable on share price determination of commercial banks in Nepal. The result showed that beta coefficients for earning per share, dividend per share, gross domestic product, and inflation on market price of share whereas, negative for firm size, return on assets and interest rate. Amatya (2016) assessed effect of firm specific and macroeconomic variables on market price of share and firm performance of Nepalese commercial banks. The result showed that there is a positive impact of dividend per share, firm size, capital adequacy ratio, gross domestic product and inflation on bank performance as well as share price. The study also indicated that there is a negative impact nonperforming loan to total loan on bank performance and share price which implies that higher the nonperforming loan to total loan, lower would be the firm performance and share price. Similarly, dividend per share, firm size, GDP growth rate and inflation have positive effect on share price. Likewise, Bhattarai (2018) assessed the firm specific and macroeconomic variables effects on share prices

of Nepalese commercial banks and insurance companies. The result showed that beta coefficients for earnings per share, divided per share, price earnings ratio, GDP and exchange rate are positive and statistically significant with market price per share.

The above discussion shows that empirical evidences vary greatly across the studies on the determinants of stock price volatility in enterprises. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The main purpose of the study is to determine the determinants of stock price volatility in Nepalese enterprises. Specifically, it examines the relationship of interest rate, inflation rate, money supply gross domestic product, and financial leverage, earnings per share and company size on the stock price volatility of Nepalese enterprises.

The remainder of this study is organized as follows. Section two describes the sample, data and methodology. Section three presents the empirical results and the final sections draws conclusion.

2. Methodological aspects

The study is based on the secondary data which were gathered from 16 Nepalese enterprises from 2015/16 to 2022/23, leading to a total of 120 observations. The study employed stratified sampling method. The main sources of data include Banking and Financial Statistics published by Nepal Rastra Bank, reports published by Ministry of Finance and annual report of respective enterprises. This study is based on descriptive as well as causal comparative research designs. Table 1 shows the list of enterprises selected for the study along with the study period and number of observations.

Table 1

List of Nepalese enterprises selected for the study along with the study period and number of observations

S. N.	Name of the enterprises	Study period	Observations
Commercial Banks			
1	Nabil Bank Limited	2015/16 - 2022/23	8
2	Everest Bank Limited	2015/16 - 2022/23	8
3	NIC Asia Bank Limited	2015/16 - 2022/23	8
4	Global IME Bank Limited	2015/16 - 2022/23	8
5	Nepal Investment Mega Bank Limited	2015/16 - 2022/23	8
Development Banks			
6	Kamana Sewa Bikas Bank Limited	2015/16 - 2022/23	8
7	Garima Bikas Bank Limited	2015/16 - 2022/23	8
8	Jyoti Bikas Bank Limited	2015/16 - 2022/23	8
9	Muktinath Bikas Bank Limited	2015/16 - 2022/23	8
10	Shine Resunga Development Bank Limited	2015/16 - 2022/23	8
Manufacturing and Processing Companies			
11	Bottlers Nepal (Balaju) Limited	2015/16-2022/23	8
12	Himalayan Distillery Limited	2015/16-2022/23	8
13	Bottlers Nepal (Terai) Limited	2015/16-2022/23	8
14	Unilever Nepal Limited	2015/16-2022/23	8
15	Shivam Cement Limited	2015/16-2022/23	8

Thus, the study is based on the 120 observations.

The model

The model used in this study assumes that stock price volatility depends on firm specific and macroeconomic factors. The dependent variables selected for the study are coefficient of variation of market price per share and market capitalization. Similarly, the selected independent variables in this study are interest rates, inflation rates, money supply, gross domestic product, financial leverage, earnings per share and company size. Therefore, the models take the following forms:

$$CVMPS = \beta_0 + \beta_1 INT_{it} + \beta_2 GDP_{it} + \beta_3 INF_{it} + \beta_4 M2_{it} + \beta_5 EPS_{it} + \beta_6 LEV_{it} + \beta_7 CS_{it} + e_{it}$$

$$MCAP = \beta_0 + \beta_1 INT_{it} + \beta_2 GDP_{it} + \beta_3 INF_{it} + \beta_4 M2_{it} + \beta 5\ EPS_{it} + \beta_6 LEV_{it} + \beta_7 CS_{it} + e_{it}$$

Where,

CVMPS=Coefficientofvariationmarketpricepershareasmeasuredbytheratioof market price per share standard deviation to mean of market price per share, in percentage.

MCAP = Market capitalization as measured by the product of market price per share and
number of shares outstanding, Rs. in billion.

INT = Interest rate, in percentage.

INF = Inflation rate, in percentage.

GDP = Gross domestic product, Rs. in billion.

M2 = Money supply, Rs in billion.

LEV = Leverage as measured by the ratio of total debt to total assets, in percentage.

EPS = Earnings per share as measured by ratio of net profit to number of shares outstanding, in Rs.

CS = Company size as measured by total assets of the company, Rs in billion.

The following section describes the independent variables used in this study along with hypothesis formulation.

Interest rates

Interest rate is the premium on current cash over deferred cash, reflecting the preference for holding cash in hand. This premium is influenced by both the demand for and supply of loanable funds, as well as psychological factors related to income disposition. Likewise, Demir (2019) revealed that interest rate negatively affects Turkish Stock Index. There is a negative relationship between interest rates and stock market performance (Olokoyo *et al.,* 2020). Furthermore, Endri *et al.* (2020) found bank interest rates have a significant negative influence on the IHSG. Moreover, Phuong (2020) revealed that interest rates have a negative impact on stock capitalization in EAP countries. Based on it, this study develops the following hypothesis.

H_1: There is a negative relationship between interest rate and stock price volatility.

Inflation rate

The inflation rate is a key economic indicator, representing the annualized percentage change in the general price index. According to Usman and Adejare (2013), there is a negative and significant relationship between inflation and market capitalization. Likewise, there is a negative relationship between inflation and Indian stock prices (Keswani and Wadhwa, 2019). Furthermore, Supeni and Salim (2020) found that inflation has a significant negative effect on stock price volatility. Likewise, Mohanty *et al.* (2021) found that there is a negative relationship between inflation and Sensex. Based on it, this study develops the following hypothesis.

H_2: There is a negative relationship between inflation rate and stock price volatility.

GDP size

Gross domestic product (GDP) is a key economic indicator that measures the market value of all final goods and services produced within a country over a specific period. Jawaid and Ul Haq (2012) found that there is a positive relationship between GDP and stock return volatility. Similarly, GDP has a significant positive impact on the stock market returns (Kalam, 2020). Likewise, Verma and Bansal (2021) revealed that GDP has a positive impact on the stock market volatility. Based on it, this study develops the following hypothesis.

H_3: There is a positive relationship between GDP size and stock price volatility.

Money supply

The money supply is generally viewed as the total number of currency units in the economy. Money supply has a positive impact on stock market capitalization in the short term (Li, 2012). Widyastuti *et al.* (2017) found that there is a significant positive relationship between money supply and composite stock price index. Furthermore, Alam (2020) found that money supply has a positive association with stock market return. According to Bhattacharjee and Das (2021), there is a positive and significant relationship between money supply and stock return. Based on it, this study develops the following hypothesis.

H_4: There is a positive relationship between money supply and stock price volatility.

Earnings per share

Earnings per share is the amount of income earned in one period for each share outstanding and will be used by the company's management to determine the number of dividends to be distributed. Mba *et al.* (2018) found that earnings per share have a positive and significant impact on market capitalization. In addition, there is a positive and significant relationship between earnings per share and share prices (Shahid *et al.,* 2020). Likewise, Hermawan *et al.* (2020) revealed that earnings per share have a positive and significant influence on market capitalization. Similarly, Padmavathi (2016) found that there is a positive relationship between earnings per share and stock prices. Based on it, this study develops the following hypothesis.

H_5: There is a positive relationship between earnings per share and stock price volatility.

Leverage

Caselli *et al.* (2016) revealed that there is a negative relation between bank leverage and share prices. Financial leverage has a significantly negative relationship with market capitalization. There is a negative relationship between financial leverage and share price (Iqbal *et al.,* 2016). Moreover, Mehmood *et al.* (2019) revealed that there is a negative relationship between leverage and stock price volatility. Similarly, Acheampong (2014) assessed the effect of financial leverage and market size on stock returns on the Ghana Stock Exchange. The study found that there is a negative relationship between leverage and stock price volatility. Based on it, this study develops the following hypothesis.:

H_6: There is a negative relationship between leverage and stock price volatility.

Company size

The company size is used to determine how big or how small a company is (Wardhani *et al.,* 2019). According to Nazir and Nawaz (2012), there is a significant positive relationship between firm size and market capitalization. Similarly, Farhan and Sharif (2015) revealed that the size of the firm is negatively and significantly related to the stock returns. Likewise, Amatya (2016) found that there is a positive association between firm size and share price. Al-Malkawi *et al.* (2018) revealed that firm size has a significant positive relationship with market price per share (MPS). Sururi *et al.* (2021) revealed that there is a significant positive association between firm size and stock

prices. Based on it, this study develops the following hypothesis.

H_7: There is a positive relationship between company size and stock price volatility.

3. Results and discussion

Descriptive statistics

Table 2 presents the descriptive statistics of selected dependent and independent variables during the period 2015/16 to 2022/23.

Table 2

Descriptive statistics

This table shows the descriptive statistics of dependent and independent variables of 15 Nepalese enterprises for the study period from 2015/16 to 2022/23. The dependent variables are CVMPS (Coefficient of variation of market price per share as measured by the ratio of standard deviation of market price per share to mean of market price per share, in percentage), and MCAP (Market capitalization as measured by the product of market price per share and number of shares outstanding, Rs. in billion). The independent variables are INT (Interest rate, in percentage), GDP (gross domestic product, Rs. in billion), INF (Inflation rate, in percentage), M2 (Broad money supply, Rs. in billion), LEV (Leverage as measured by the ratio of total debt to total assets, in percentage) and EPS (Earnings per share as measured by the ratio of the net income to number of shares outstanding, in Rs.), CS (Company size as measure by the total assets, Rs.in billion).

Variables	Minimum	Maximum	Mean	Std. Deviation
CVMPS	0.00	57	15	11
MCAP	2.00	97.00	26.53	24.70
EPS	-32.00	1675.00	139.83	295.45
LEV	9.00	93.00	74.00	25.00
CS	1.00	534.00	91.49	116.38
INT	8.00	19.00	14.00	2.00
INF	4.00	10.00	6.00	2.00
M2	2245.00	6130.00	4066.75	1338.43
GDP	2608.00	5381.00	3944.63	869.46

Source: SPSS output

Correlation analysis

Having indicated the descriptive statistics, Pearson's correlation coefficients are computed and results are presented in Table 3.

Table 3

Pearson's correlation coefficients matrix

This table shows the bivariate Pearson's correlation coefficients of dependent and independent variables of 15 Nepalese enterprises for the study period from 2015/16 to 2022/23. The dependent variables are CVMPS (Coefficient of variation of market price per share as measured by the ratio of standard deviation of market price per share to mean of market price per share, in percentage), and MCAP (Market capitalization as measured by the product of market price per share and number of shares outstanding, Rs. in billion). The independent variables are INT (Interest rate, in percentage), GDP (gross domestic product, Rs. in billion), INF (Inflation rate, in percentage), M2 (Broad money supply, Rs. in billion), LEV (Leverage as measured by the ratio of total debt to total assets, in percentage) and EPS (Earnings per share as measured by the ratio of the net income to number of shares outstanding, in Rs.), CS (Company size as measure by the total assets, Rs.in billion).

Variables	CVMPS	MCAP	EPS	LEV	CS	INT	INF	M2	GDP
CVMPS	1								
MCAP	0.174	1							
EPS	-0.171	-0.133	1						
LEV	-0.069	-0.036	-0.485	1					
CS	-0.004	0.507**	-0.281	0.462**	1				
INT	-0.123	-0.377	0.026	-0.024	-0.318	1			
INF	-0.299	0.051	-0.005	0.014	0.011	-0.088	1		
M2	0.020	0.089	0.019	-0.021	0.362**	-0.042	-0.039	1	
GDP	-0.001	0.071	0.035	-0.027	0.355**	0.090	-0.070	0.810**	1

Note: The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent levels respectively.

Table 3 shows that there is negative relationship between earnings per share and coefficient of variation market price per share. It indicates that increase in earnings per share leads to decrease in coefficient of variation of market price per share. Similarly, there is a negative relationship between leverage and coefficient of variation of market price per share. It means that higher the leverage ratio, lower would be the coefficient of variation of market price per share. Likewise, company size has a negative relationship with coefficient of variation of market price per share. It indicates that increase in company size leads to decrease in coefficient of variation of market price per share. In addition, there is a negative relationship between interest rate and coefficient of variation of market price per share. It indicates that increase in interest rate leads to decrease in coefficient of variation of market price per share. Furthermore, inflation rate has a negative relationship with coefficient of variation of market price per share, it reveals that higher the

interest rate, lower would be the coefficient of variation of market price per share. Moreover, there is a positive relationship between money supply and coefficient of variation of market price per share. It indicates that higher the money supply, higher would be the coefficient of variation of market price per share. In addition, there is a negative relationship between gross domestic product and coefficient of variation of market price per share. It means that increase in gross domestic product leads to decrease in coefficient of variation of market price per share.

Furthermore, the result shows that there is a positive relationship between share market capitalization and coefficient of variation of market price per share. It indicates that higher the market capitalization, higher would be the coefficient of variation of market price per share. In addition, earnings per share have a negative relationship with market capitalization. It means that larger the earnings per share, lower would be the market capitalization. Similarly, there is a negative relationship between leverage and market capitalization. It reveals that increase in leverage leads to decrease in market capitalization. Moreover, company size has a positive relationship with market capitalization. It means that larger the company size, larger would be the market capitalization. Furthermore, there is a negative relationship between interest rate and market capitalization. It indicates that increase in interest rate leads to decrease in market capitalization. Likewise, inflation has a positive relationship with market capitalization. It means that higher the inflation, higher would be the market capitalization. Similarly, there is a positive relationship between money supply and market capitalization. It reveals that increase in money supply leads to increase in market capitalization. Furthermore, there is a positive relationship between gross domestic product and market capitalization. It means that lager the gross domestic product, larger would be the market capitalization.

Regression analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been carried out and the results are presented in Table 4 and Table 5. More specifically, Table 4 shows the regression results of interest rates, inflation rates, money supply, gross domestic product, financial leverage, company size and earnings per share on coefficient of variation of market price per share in Nepalese enterprises.

Table 4

Table 4 Estimated regression results of leverage ratio, earnings per share, company size, inflation rate, interest rate, money supply and gross domestic product with coefficient of variation of market price per share

The results are based on panel data of 15 Nepalese enterprises with 120 observations for the period of 2015/16-2022/23 by using the linear regression model and the model is CVMPS = $\beta_0 + \beta_1 INT_{it} + \beta_2 GDP_{it} + \beta_3 INF_{it} + \beta_4 M2_{it} + \beta_5 EPS_{it} + \beta_6 LEV_{it} + \beta_7 CS_{it} + e_{it}$ where, the dependent variable is CVMPS (Coefficient of variation of market price per share as measured by the ratio of standard deviation of market price per share to mean of market price per share, in percentage). The independent variables are INT (Interest rate, in percentage), GDP (gross domestic product, Rs. in billion), INF (Inflation rate, in percentage), M2 (Broad money supply, Rs. in billion), LEV (Leverage as measured by the ratio of total debt to total assets, in percentage) and EPS (Earnings per share as measured by the ratio of the net income to number of shares outstanding, in Rs.), CS (Company size as measure by the total assets, Rs.in billion).

Model	Intercept	Regression coefficients of							Adj. R_bar^2	SEE	F-value
		INT	M2	INF	GDP	EPS	LEV	CS			
1	0.243 (3.256)**	-0.676 (1.294)							0.006	0.114	1.674
2	0.250 (7.582)**			-1.759 (3.289)**					0.081	0.109	10.81
3	0.156 (13.196)**					-6.437 (1.823)			0.021	0.113	3.324
4	0.363 (4.522)**	-0.783 (1.561)		-1.799 (3.295)*					0.089	0.109	6.341
5	0.248 (3.352)**	-0.645 (1.246)				6.401 (1.813)			0.027	0.113	2.498
6	0.268 (3.252)**	-0.689 (1.315)					-0.031 (0.723)		0.002	0.114	1.095
7	0263 (3.170)**	-0.776 (1.399)						-5.373 (0.551)	0.003	0.114	-.983
8	0.355 (4.083)**	-0.781 (1.551	1.827 (0.229)	-1.805 (3.287)**					0.080	0.109	4.208
9	0.380 (4.360)**	-0.870 (1.635)		-1.793 (3.272)**				-4.710 (0.504)	0.082	0.109	4.283
10	0.392 (3.857)**	-0.465 (0.690)	3.890 (0.732)	-1.839 (3.329)**	-5.832 (0.706)				0.076	0.110	3.266
11	0.405 (4.676)**	-0.947 (1.802)		-1.758 (3.256)**		-7.362 (2.075)*		0.001 (1.122	0.110	0.108	4.388
12	0.388 (3.855)**	-0.495 (0.741)	3.174 (0.601)	-1.810 (3.307)**	-4.713 (0.574)	-5.989 (1.752)			0.094	0.109	3.278
13	0.461 (4.341)**	-0.549 (0.831)	2.773 (0.532)	-1.815 (3.361)**	-4.105 (0.506)	-9.661 (2.500)*	-0.091 (1.948)*		0.117	0.107	3.437
14	0.458 (4.268)**	-0.663 (0.862)	2.285 (0.416)	-1.806 (3.323)**	-3.168 (0.362	-9.810 (2.506)*	-0.084 (1.580)	-3.653 (0.293)	0.109	0.108	2.932

Notes:

i. Figures in parenthesis are t-values.
ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
iii. Coefficient of variation of market price per share is the dependent variable.

Table 4 shows that the beta coefficients for interest rate are negative with coefficient of variation of market price per share. It indicates that interest rate

has a negative impact on coefficient of variation of market price per share. This finding is similar to the finding of Hussain *et al.* (2016). Similarly, the beta coefficients for money supply are positive with coefficient of variation of market price per share. It means that money supply has a positive impact on coefficient of variation of market price per share. This finding is consistent with the finding of Widyastuti *et al.* (2017). Likewise, the beta coefficients for inflation rate are negative with coefficient of variation of market price per share. It indicates that inflation rate has a negative impact on coefficient of variation of market price per share. This finding is consistent with the finding of Supeni and Salim (2020). Furthermore, the beta coefficients for gross domestic product are negative with coefficient of variation of market price per share. It reveals that gross domestic product has a negative impact on coefficient of variation of market price per share. This finding is inconsistent with the findings of Verma and Bansal (2021). Moreover, beta coefficients for earnings per share are negative with coefficient of variation of market price per share. It means that earnings per share have a negative impact on coefficient of variation of market price per share. The finding is inconsistent with the finding of Hermawan *et al.* (2020). Likewise, the beta coefficients for leverage ratio are negative with coefficient of variation of market price per share. It indicates that leverage ratio has a negative impact on coefficient of variation of market price per share. This finding is similar to finding of Caselli *et al.* (2016). Similarly, the beta coefficients for company size are negative with coefficient of variation of market price per share. It means company size has a negative impact on coefficient of variation of market price per share. This finding is inconsistent with the finding of Al-Malkawi *et al.* (2018).

Table 5 shows the regression results of leverage ratio, earnings per share, company size, inflation rate, interest rate, money supply and gross domestic product with market capitalization of Nepalese enterprises.

Table 5

Estimated regression results of leverage ratio, earnings per share, company size, inflation rate, interest rate, money supply and gross domestic product with market capitalization

The results are based on panel data of 15 Nepalese enterprises with 120 observations for the period of 2015/16-2022/23 by using the linear regression model and the model is $MCAP = \beta_0 + \beta_1 INT_{it} + \beta_2 GDP_{it} + \beta_3 INF_{it} + \beta_4 M2_{it} + \beta_5 EPS_{it} + \beta_6 LEV_{it} + \beta_7 CS_{it} + e_{it}$ where, the dependent variable is MCAP (Market capitalization as measured by the product of market price per share and number of shares outstanding, Rs. in billion). The independent variables are INT (Interest rate, in percentage), GDP (gross domestic product, Rs. in billion), INF (Inflation

rate, in percentage), M2 (Broad money supply, Rs. in billion), LEV (Leverage as measured by the ratio of total debt to total assets, in percentage) and EPS (Earnings per share as measured by the ratio of the net income to number of shares outstanding, in Rs.), CS (Company size as measure by the total assets, Rs.in billion).

Model	Intercept	Regression coefficients of							Adj. R_bar^2	SEE	F-value
		INT	M2	INF	GDP	EPS	LEV	CS			
1	117.140 (8.235)**	-632.872 (6.419)**							0.268	21.1476	41.209
2	12.892 (1.690)		0.003 (1.875)						0.022	24.427	3.516
3	8.687 (0.774)				0.004 (1.624)				0.015	24.522	2.638
4	28.047 (10.849)**					-0.010 (1.347)			0.007	24.612	1.814
5	13.423 (5.938)**							0.152 (9.237)**	0.432	18.622	85.322
6	105.571 (6.612)**	-621.180 (6.323)**	0.002 (1.557)						0.277	21.010	22.086
7	111.479 (7.091)**	-629.831 (6.376)**		91.583 (0.850)					0.266	21.174	20.914
8	98.585 (5.985)**	-644.770 (6.635)**			0.005 (2.137)*				0.291	20.810	23.562
9	118.448 (8.367)**	-631.411 (6.446)**				-0.010 (1.561)			0.277	21.009	22.095
10	75.101 (5.973)**	-414.717 (4.959)**						0.125 (7.883)**	0.531	16.926	63.231
11	101.090 (5.907)**	-618.974 (6.285)**	0.002 (1.493)	79.311 (0.738)					0.274	21.055	14.844
12	35.366 (5.062)**					-0.004 (0.683)	-3.082 (3.570)**	0.183 (10.229)*	0.487	17.691	36.138
13	5.132 (0.392)			85.220 (0.700)	0.005 (1.649)	-0.011 (1.409)			0.019	24.473	1.698
14	71.070 (4.332)**	-547.887 (4.773)**	-0.020 (2.479)*	101.400 (1.231)	0.030 (2.303)	-0.007 (1.144	-25.237 (2.914)**	0.143 (7.043)**	0.580	16.007	22.736

Notes:

i. Figures in parenthesis are t-values.
ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
iii. Market capitalization is the dependent variable.

Table 5 shows that the beta coefficients for interest rate are negative with market capitalization. It indicates that interest rate has a negative impact on market capitalization. This finding is consistent with the finding of Phuong (2020). Similarly, the beta coefficients for money supply are positive with market capitalization. It means that money supply has a positive impact on market capitalization. This finding is similar to the findings of Li (2012). Likewise, the beta coefficients for inflation rate are positive with market capitalization. It reveals that inflation rate has a positive impact on market capitalization. This finding is inconsistent with the findings of Keswani and Wadhwa (2019). Moreover, beta coefficients for gross domestic product are positive with market capitalization. It indicates that gross domestic product

has a positive impact on market capitalization. This finding is similar to the finding of Jawaid and Ul Haq (2012). In addition, the beta coefficients for earnings per share are negative with market capitalization. It means that earnings per share have a negative impact on market capitalization. This finding is inconsistent with the finding of Mba *et al.* (2018). Likewise, the beta coefficients for financial leverage are negative with market capitalization. It indicates that leverage has a negative impact on market capitalization. This finding is consistent with the findings of Acheampong (2014). Similarly, the beta coefficients for company size are positive with market capitalization. It reveals that company size has a positive impact on market capitalization. This finding is similar to the findings of Nazir and Nawaz (2012).

4.Summary and conclusion

Stock market plays a significant role in the economy of a country and important role in the allocation of resources, both directly as a source of funds and as a determinant of firms' value and its borrowing capacity. Stocks have always been a hot topic of discussion in the financial realm, but the difficulty in understanding the real meaning of stocks still persists. Basic financial literacy is crucial for making informed investment decisions and avoiding significant losses. Understanding the factors that influence share price behavior is of great significance to investors, policymakers, and researchers alike.

This study attempts to determine the impact of interest rates, inflation rates, money supply, gross domestic product, financial leverage, company size and earnings per share on the stock price volatility in Nepalese enterprises. The study is based on secondary data of 5 commercial banks, developments banks and manufacturing companies with 120 observations for the study period from 2015/16 to 2022/23.

The study showed that the interest rate, inflation rate, earnings per share, gross domestic product, leverage and company size have a negative impact on coefficient of variation of market price per share of Nepalese enterprises. However, money supply has a positive impact on coefficient of variation of market price per share. Furthermore, interest rate, earnings per share and leverage has a negative impact on market capitalization. Likewise, money supply and inflation rate, gross domestic product and company size has a positive impact on market capitalization of Nepalese enterprises. The major conclusion of the study is that interest rate followed by inflation rate is the most influencing factors that explain the fluctuation in coefficient of variation of market price per share in Nepalese enterprises. Similarly, the

study also concluded that interest rate, followed by company size is the most influencing factor that explains the fluctuation in the market capitalization of Nepalese enterprises.

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