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Dividend Policy and Share Price Volatility: Evidence from Commercial Banking Sector

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Abstract

Purpose: Share price volatility is a matter of concern for management and investors. Hence, this study seeks to establish association between dividend policy and share price volatility of banks listed in Nepal Stock Exchange.
Design/ Methodology/ Approach: The sample consists of 19 commercial banks covering a time span of 12 years from 2009 to 2020. On the basis of Baskin's basic model, we used three multiple panel data regression models by adopting 3 explanatory variable of dividend policy such as dividend per share, dividend payout ratio and dividend yield separately and controlling for bank size, asset growth, financial leverage and earning volatility.
Findings: The empirical finding evidenced that dividend yield appears to the most significant predictor of share price volatility in commercial banking sector along with their size and earning volatility. There is inverse prediction of dividend yield and bank size whereas earning volatility has the positive effect on share price volatility.
Originality/Value: The study is original and valuable as it explores the banking firm's share price volatility and dividend policy in a developing country for recent and new data set focusing on commercial banks listed in Nepal Stock Exchange.
Key Words: Share price volatility, Dividend policy, Commercial banks, Nepal
Paper Type: Research Paper

1. Introduction

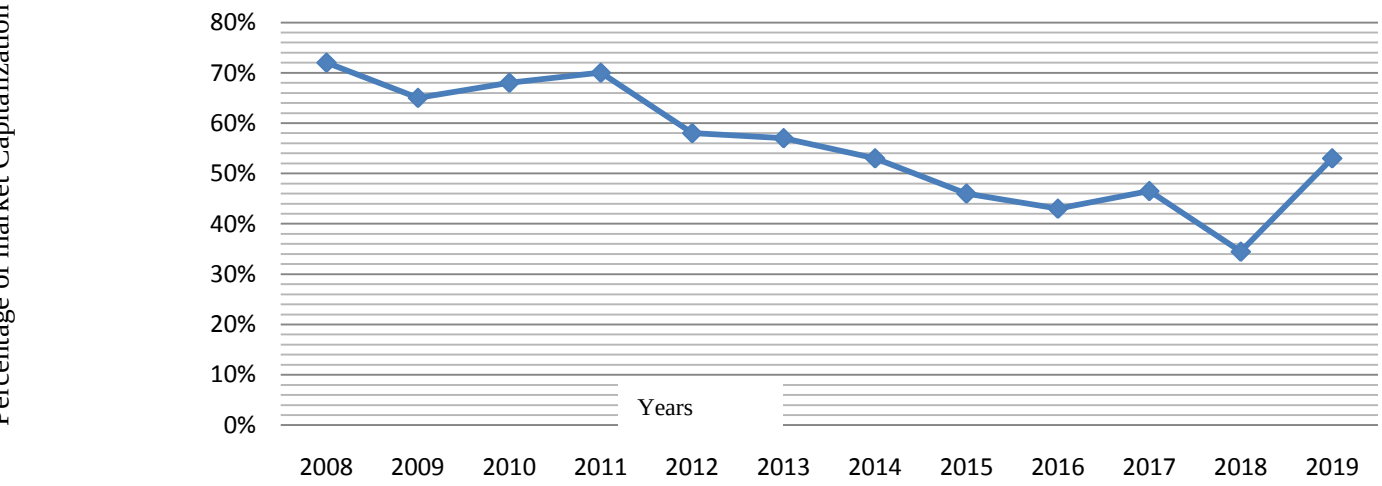
Business entities are established and operated by owners to generate income above the expenditures which is known as profit. The dividend issue is widespread in corporate finance that deals with the distribution of such profit among shareholders of a firm. It involves the disposing of firms profit into payment to shareholders and re-utilizing in firm for exploiting the attractive investment opportunities. Thus, this decisions calls for striking a balance between sharing profit with shareholders and retaining earnings for growth. The dividend issue has got considerable emphasis by researchers because it affects almost all major areas of corporate finance including cost of capital, investment and financing decisions. As the empirical studies are unable to establish a precise linkage of dividend policy on various functional areas of finance, therefore it isregarded as a most controversial and puzzling issue in corporate finance.

A landmark address in the dividend issue has been made by Modigliani and Miller (1961), under a set of restricted assumptions, demonstrated that value of the firm remains unaffected with dividend policy and therefore established a dividend irrelevance theory. Since then academic world seems divided into irrelevance and relevance of dividend in respect to its impact on share price, market risk and firms competitive strengths. Black & Scholes (1974), Adefits*et al.* (2004), Uddin &Chowdhury (2005), Denis &Osobov (2008), Adesola&Okwong(2009) supported the MM's irrelevance hypothesis and provided the strong evidence that dividend payment does not affect share price and its volatility. However, Lintner (1962), Asquith & David (1983), Baker & Powell (1999), Gordon *et al.* (1986), Travlos*et. al.* (2001), Baker *et al*. (2005), Maditirinos*et al.* (2007)presented the evidence of dividend relevance and argued that dividend decision has undeviating impact on firm value and shareholders' wealth.

Guo (2002) stated that the un-diversifiable risk faced by common stockholders is known as stock price volatility. One important factor that leads to unstable financial market is the price volatility of shares traded in stock market. The dividend announcement carries information to the market participants that causes the change in share prices (Pettit 1972, 1976). Signaling dividend hypothesis by Battacharya (1979) support dividend payout because it plugs the information gap between management and investors. Paying dividends therefore conveys information that prospects for the firm are good (Malkawi*et al.* 2010).Zainudin*et al.*(2018) affirmed that dividend policy strongly predict of share price volatility. Recently, the dimensions of dividend policyissues are shifting among researchers because it is now explored in various other managerial issues like creating a balance between the diverse interest of shareholders along with general aspect of firm's decision to share repurchase, cash or stock dividend(Phan& Tran, 2019). Onesuch important managerial concern is relatedwith maintaining and enhancing the value of shares in the market by means of the dividend policy (Hussainey*et al.*2011).

However; systematic risk in share market caused by dividend payment behavior has been not broadly studied especially in underdeveloped or developing countries. The previous studies conducted in different market settings, regulatory frame work, corporate governance level and industry sector has provided mixed resulted in correlationof dividend policy with share price volatility. For example Baskin (1989), Allen &Rachim (1996), Hussainey*et al.* (2011) have continued to fall out whether stock price volatility is influenced by dividend policy.

Figure 1 Percentage of Commercial bank in total Market Capitalizations



Nepal Stock Exchange (NEPSE), only one stock market in Nepal, is fully dominated by the banking sector, especially by commercial banks in terms of market capitalization. Commercial bank provides an attractive platform for investment in shares for a vast number of investor in Nepal. They have showed investment interest in secondary market because the shares traded in NEPSE are highly liquid with high rate of return (Pokhrel, 2018). Therefore, as it can be observed from Figure 1that the volume of trading amount and the number of shares traded from the commercial banks group has the highest stake on the total trading volume and total shares traded respectively.

Higher volatility fuels greater unpredictability and creates uncertainty to the shareholders of commercial banks. French and Roll (1986) argue that volatility is intimately associated to information that may bring change market expectations and ultimately share prices. Similarly, new information may carry and transfer about greater absolute price fluctuation in larger volume due to an increase in the extent of which investors disagree from the stock valuation effect of such new information (Epps & Epps, 1976). Large amounts of information that have an effect on stock market volatility materializemainly from monetary and financialor economic pronouncements. Subsequentcause of fluctuation or volatility is the dealing by liquidity and asset distributionrequirements, market-timing decisions, behavior of institutional investors andarbitrage and hedge positions created by individual investors, program trading,

etc. This kind of information is intimatelyallied to the volatility ascription to the tradingaction of investors. This study, therefore, aimed to add one more announcement affect on share price volatility which is the dividend announcement. More specifically, this article seeks to ascertain a relationship between dividend policy and share price volatility in the perspective of commercial banks listed in Nepal Stock Exchange.

2. Literature Review

2.1 Theories of Dividend policy

From the voluminous studies conducted in the corporate dividend policy, the literature available so far ranges in five most influential theories or hypothesis. The first is the irrelevancetheory. Modigliani and Miller (1961), in the assumption of perfect capital market forwarded the argument that dividend are irrelevant for the valuation of the firm as investors are unconcernedabout immediate cash dividend or future price appreciation gain. This proposition is held by Black & Scholes (1974), Miller & Scholes (1982), Kaleem&Chaudhary (2006), Allen & Veronica (1996) and Ali &Chowdhury(2010). Second category of dividend theories are represented as relevance hypothesis that include 'bird in hand' fallacy developed by Lintner (1956) and Gordon (1959) who argued that because of its certainty, value of the current dividend worth more than future uncertain price appreciation gain. Darling (1957), Brittain (1966), Ramadan (2013), Amir & Shah (2011), Azhagaiah&Priya (2008) supported relevancy of dividend hypothesis. Similarly, Tax Preference Theory, propounded by Farrar *et al.* (1967) using MM model stated that higher dividend tend to lower the value of firm if thedividend is taxed at higher rate than on capital gain. Brennan (1970), Litzenberger&Ramaswamy (1979), Kalay&Michaely (2000), Elton & Gruber (2011) are names who studied tax implication on value of the firm and dividend policy. Another school of notion in dividend policy literature is signalinghypothesis which was initially developed by Miller and Modigliani (1961) and documented that in imperfect capital market inside managers have more information than externalmarket participants and they make use of dividend payment as a price signal to outside investors. This asymmetry of information creates problem in determining the fair value of share. Therefore outside investors judge the present and future value of firm on the basis of dividend payment. Pettit (1977), Acker (1999), Mahmood*et al.* (2011), Khan *et al.* (2013) have similar findings in this regard. Jensen &Meckling (1976) presented the AgencyCost Hypothesis stating that managers and shareholders indulge in conflict of interest. Jensen (1986) argued that agency conflict between stockholders and managers can be resolved by using dividend payment. Higher dividend shrinks the size of free cash-flow to the managers thereby restricting them from misusing corporate funds. Thus, dividend may be used as a tool to restrict the availability of managers of free funds and because of external financing due lower internal funds, theyeventually feel pressure to work on behalf of shareholders. Managers will be now double-monitored: from shareholders as well from external fund suppliers such as bankers, regulating and rating agencies. Al-Taleb (1984), D'Souza &Saxena (1999), Bajaj et al. (2002),Manos (2003), Ghosh & Sun (2014) have similar conclusions that support the Agency Theory.

2.2 Dividend policy and Share Price Volatility (SPV)

Baskin (1989) presented an apex and pioneering study onshare price volatility and dividend policy in US and acknowledged an inverse relationship between price volatility and dividend yield which is further supported by Allen &Rachim (1996)in Australia, Hussainey*et al.* (2011) in UK, Lashgari&Ahmadi (2014) in Iran, Ramadan (2013), AlQudah& Yusuf (2015) in Jordan. Such inverse association implies that companies paying larger dividend expose lower market risk proxied by share price volatility. Similarly, Hashemijoo*et al.*(2012) and Swee*t al.*(2015) revealed negative influence of dividend payout ratio and dividend yield on volatility of share price in Malaysia taking the sample from industrial firms however, Zakaria*et al.*(2012) explored positive effect of dividend procedure on share price volatility in Malaysia using building companies as a sample. This type of positive relationship between cash dividend and share price is also evidenced by Chen *et al.*(2009), Adesola&Okwong (2009) in Chinese and Nigerian context respectively. Hamid *et al.* (2017), taking the samples from financial firms, found positive relation between

price volatility and dividend payment. The inference of positive association is that the companies that distribute higher dividend face greater market risk in the form of volatile price of share. Further, in SriLanka, Jahfer&Mulafar (2016) established a positive whereas Gunaratne*et al.* (2016) found inverse linkage between dividend yields and stock price fluctuation. Almanaseer (2019) based on the sample of 20 insurance companies, established a dominant negative connection between share price volatility and dividend yield and dividend payout ratio in Jordan. In a recent study by Pelcher (2019) using panel data model on a sample of the top 40 JSE-listed shares in South Africa documented amomentous positive connection between share price volatility and dividend yield but that between share price volatility and payout ratio is insignificant. Similarly, Kumaraswamy*et al.* (2019) also support the fact that share price volatility is influenced by dividends policy in the context of Indian market.

In Nepal, dividend is evolved as animportant determinant of stock price in both banking and non-banking firms (Joshi, 2012). A study based on the commercial banking firms conducted in Nepal by Bhattarai (2016) revealed a significant positive association between dividend payment and share price. In contrast, Pradhan and Gautam (2017) using commercial banks as sample revealed negative relationship between dividend payout and price volatility which was measured in terms of both change in market price and stock return volatility. The result of Baral& Pradhan (2018) in Nepalese context showed that the share price of top loser bank is strongly affected by the dividend payout ratio.

3. Methodology

3.1 Sample and Data

We followed positivist research paradigm using deductive approach of quantitative method to quantify the impact of three substitutes of dividend payment (dividend per share, dividend payout ratio and dividend yield) in conjunction with the control variables on share price volatility. Our sample consists of commercial banks in Nepal selected purposively on following criteria:

1. Bank should be licensed by Nepal Rastra Bank (NRB), the central bank of Nepal.
2. Continuously listed in Nepal Stock Exchange (NEPSE) throughout the study period.
3. Should have complete data available in their annual report.

The main rationale for applying these selection criteria is to ensure the condition that enables to use balanced panel data analysis. After screening, out of a total population of 27 listed commercial banks, 19 are selected and their financial data be extracted from the annual reports, NEPSE reports and NRB Bank Supervision report for the period of 2009 to 2020.

3.2 Estimation Model

We use three panel data regression model in consistent with Baskin (1989). The intension for using three regressions is to measure the influence of each dividend payment variables on volatility of stock price independently. The dividend proxies are replicated with same control variables each time in regression for obtaining robust and rigorous result and measuring the strength of each dividend predictor on share price volatility. The control variables consist ofbank-size, assets growth,earnings volatility andfinancial leverage are based on the previous literature for instanceBaskin (1989), Allen &Rachim (1996), Hussainey*et al.* (2011), Shah & Noreen (2016), Zainudin*et al.* (2018), and Camilleri*et al.* (2019). After adding control variables, the regression equation appears as follows:

$$SPV = \beta_0 + \beta_1 DPS_{it} + \beta_2 \ln(A_{it}) + \beta_3 AG_{it} + \beta_4 LEV_{it} + \beta_5 EV_{it} + \varepsilon_{it} \ldots (1)$$

$$SPV = \beta_0 + \beta_1 DPR_{it} + \beta_2 \ln(A_{it}) + \beta_3 AG_{it} + \beta_4 LEV_{it} + \beta_5 EV_{it} + \varepsilon_{it} \ldots (2)$$

$$SPV = \beta_0 + \beta_1 DY_{it} + \beta_2 \ln(A_{it}) + \beta_3 AG_{it} + \beta_4 LEV_{it} + \beta_5 EV_{it} + \varepsilon_{it} \ldots (3)$$

Where, subscript '*i'* and '*t'* signify firm and point of time in years respectively, SPV is the short form of stock price volatility, DPS is dividend per share, *DPR* is dividend payout ratio, *DY* is dividend yield, *ln(A)* is bank size, *AG* is assets growth, *LEV* is leverage, *EV* is earning volatility and ε is error term.

3.3 Measurement of Variables and Hypotheses

3.3.1 Dependent Variable

The study seeks to quantify the influence of dividend payout on share price volatility of banking firms by employing aforementioned regression equations where share price volatility (SPV) is the reliant variable. This variable captures the market risk for equity investors on the stock market. In consistent with previous studies such as Parkinson (1980), Baskin(1989), Allen &Rachim(1996); Hussaney*et al.* (2011), Shah & Noreen,(2016), Suwanhirunkul&Masih (2018); Camilleri*et al.* (2019), the SPV is calculated as difference between maximum and minimum market price of share divided by the average of maximum and minimum price and then raised the power two and taking the square root to make comparable similar to standard deviation. Thus, SPV is calculated as follows:

$$SPV = \sqrt{\frac{P_{max} - P_{min}}{\left(\frac{P_{max} - P_{min}}{2}\right)^2}} \quad \ldots\ldots\ldots\ldots 4$$

Where, P_{max} and P_{min} are the maximum and the minimum share price for each bank during each of the fiscal years.

3.3.2 Explanatory Variables

i) Dividend Per Share (DPS)

DPS is the main predictor variable in our regression model 1. It is the total of confirmed dividends for every common stock issued by the sample banks. DPS provideunprejudicedconsequence to earning comparing with dividends payout ratio. Analyzing per-share statisticspermits theuse of panel data methods which are proficient of effectively modeling inter-temporal dividend behavior and dynamics (Haddad *et al.*, 2008). Similarly DPS was used by earlier researchers such as Lintner (1956),Naceur*et al.* (2006), Benzinho (2007), Fida& Khan (2012), Alzomaia& Al-Khadhiri (2012), Hashim*et al.*(2013),Yegon*et al.* (2014), Almeida *et.al.* (2015), and Pradhan &Dhahal (2016). DPS is calculated as follows:

$$DPS = \frac{\text{Total dividend Declared and Paid}}{\text{Number of Equity Shares Outstanding}} \ldots\ldots\ldots (5)$$

The statement of hypothesis is:

H_1: There is significant negative impact of DPS on SPV.

ii) Dividend Payout Ratio (DPR)

Dividend payout ratio is the fraction of dividend declared to the amount available for equity shareholders. This ratio measures the percentage of amount declared as dividend out of the total income of a firm. DPR is widely used parameter of dividend policy literature because it is applied in different situations such as in determining the value of dividends in subsequent periods, the plough-back ratioresulting from it, isapplied to calculate the growth rate in future earnings, and it has a propensity to trail the life cycle whichsignifys the maturity of a firm. Earlier researcher who use this measure include Baskin (1989),Allen &Rachim(1996),Hussaney*et al.* (2011), Shah & Noreen (2016),Suwanhirunkul&Masih (2018) and Camilleri*et al.* (2019). DPR is derived as follows:

$$DPR = \frac{\text{Total dividend Declared and Paid}}{\text{Net Income}} \ldots\ldots\ldots\ldots\ldots (6)$$

The statement of hypothesis is:

H_2: There is significant negative impact of DPR on SPV.

iii) Dividend Yield (DY)

Dividend yield quantify how large a firmdeclares and pays out in dividends comparative to the market price of its shares. Fama& French (1988) argued that dividend yield is more practical, useful and instructive than DPR as it reflect the return from the stock. This is because the price paid for buying the stock is used as denominator to calculate it. Berk&Demarzo (2014) stated that dividend yield reveal the return that investors anticipate to receive for the shares they hold. Earlier researcher who use this measure include Baskin (1989),Allen &Rachim(1996),Hussaineyet *al.* (2011), Shah & Noreen (2016), Suwanhirunkul&Masih (2018) andCamilleri*et al.* (2019). DY is computed as follows:

$$DY = \frac{\text{Total dividend Declared and Paid}}{\text{Total Market Value of Equity}} \quad \ldots\ldots\ldots\ldots\ldots\ldots (7)$$

The statement of hypothesis is:

H_3: There is significant negative impact of DY on SPV.

3.3.3 Control Variables

i) Bank Size

Size is a key financial gauge applied to indicate the capacity and dimensions of the bank (Bhattarai, 2014). Naceur&Goaied (2002) suggest that the wealth creation is affected by size. They argued that the likelihood to generate value is stronger in small firms than in large ones. Black (1976a, b) and Christie (1982) argued that minor firms respond more strappingly to idiosyncratic disturbances and therefore likely to face a larger volatility. This argument is further supported by Suwanhirunkul&Masih (2018) who stated that larger firms are less volatile in comparison to smaller one due to better diversification, greater access to information and higher arbitrage opportunities in trading. This predictor variable isfound by means of the natural logarithmof total assets of the banks following (Zakaria*et al.*,2012 and Lashgari&Ahmadi, 2014). Thus, bank size is obtained as follows:

Bank Size = ln (Total Assets) ……. (8)

The statement of hypothesis is:

H_4: There is significant negative impact of bank size on SPV.

ii) Asset Growth (AG)

Previous researches have confirmed that higher the rate of asset growth or growth opportunities, the largerthe firm's risk and therefore higher stock volatility. Companies that experience growth by acquiring new project need to retain more for rapid investment in assets, property, plant and equipment to aid the required growth. However, the income from such newly acquired project my uncertain thereby making the firm more vulnerable. The rate of asset growth or growth opportunity, imply that the bigger the asset growth the larger the share price changes. Much of the previous literature such as Beaver *et al*. (1970),Eskew, (1979), Chung, &Charoenwong (1991) suggested positive relation between firms asset growth rate with share price fluctuation. We determine the bank's assets growth as a percentagefluctuation in total assets between the beginning and the end of the year which is consistent with Baskin, (1989),Allen &Rachim(1996),Hussaineyet *al*. (2011), Shah & Noreen (2016),Suwanhirunkul&Masih (2018) and Camilleri*et al*. (2019). AG is computed as follows:

$$AG = \frac{TA_{t+1} - TA_t}{TA_t} \quad \ldots\ldots\ldots\ldots\ldots\ldots (9)$$

Where,

TA stands for total assets

The statement of hypothesis is:

H_5: There is significant positive impact of AG on SPV.

iii) Leverage (LEV)

Leverage is a capital structure variable of the firm which mayamplify an effect on share price volatility (Hussainey*et al*., 2011; Habib *et al.*, 2012). Many previous researchers such as (Black, 1976a, b; Christie, 1982; Schwert, 1989) have documented positive association between firm's financial leverage and stock market volatility. Higher level of debt obviously creates the vulnerability of its market price of shares. Aivazian*et al.* (2003), Al-Najjar (2009), Nazir*et al.* (2012), and Kilincarslan (2015) has calculated leverage in their study as dividing total debt by total assets of the firm. In this study we also utilize the identicaltechnique to gauge the leverage.

$$LEV = \frac{\text{Total Debt}}{\text{Total Assets}} \quad \ldots\ldots\ldots\ldots\ldots\ldots (10)$$

The statement of hypothesis is:

H_6: There is significant positive impact of LEV on SPV.

iv) Earning Volatility (EV)

EV is another control variable in the study as a measure of business risk. Higher volatility of earning indicates higher business risk and therefore more volatile the value of firms' stock. We use the change in operating profit of banks as a measure of business risk which is also used by Baker *et al*. (1985), D'Souza (1999), Booth *et al*.(2001), Amidu&Abor (2006), Kanwal&Sujata (2008)in their studies.

$$EV = \frac{\text{Operating Profit}_{t+1} - \text{Operating Profit}_{t}}{\text{Operating Profit}_{t}} \quad \ldots\ldots\ldots (11)$$

The statement of hypothesis is:

H_7: There is significant positive impact of EV on SPV.

4. Conceptual Model and Expected Signs

Based on the literature review and formulation of aforementioned hypotheses, we develop following conceptual model of research along with the expected sings of relationship of explanatory and control variables with dependent variable.

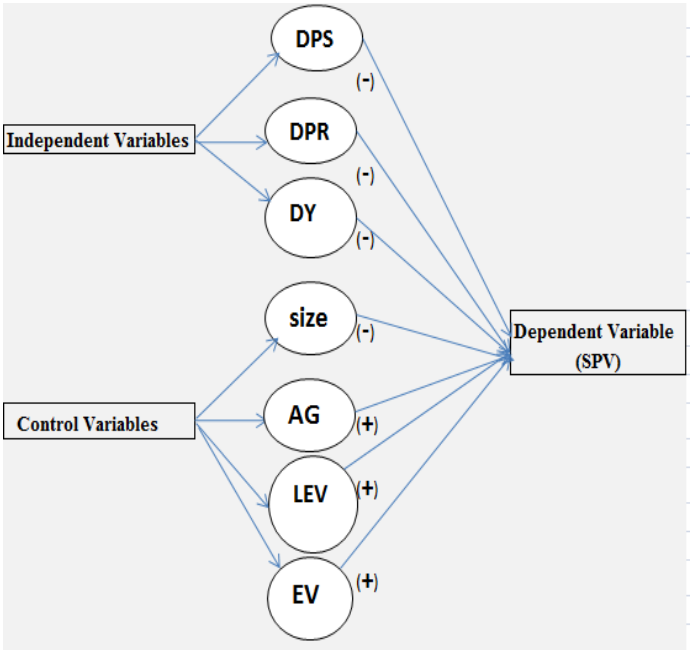


Figure 2: Conceptual Model and the Expected Signs

5. Empirical Results

5.1 Descriptive Statistics

Table 1 depicts the summary of descriptive statistical characteristics of all variables used in the study for the period 2009- 2020.

Table 1Descriptive Statistics of Variables

	Min.	Max.	Mean	SD
SPV	0.0223	3.2226	0.6521	0.6118
DPS	0.00	129.97	23.03	20.85
DPR	0.0000	21.7759	0.8196	1.4584
DY	0.0000	0.1053	0.0331	0.0215
lnA	8.2500	12.4500	10.6904	0.7831
AG	-0.8834	9.6353	0.2726	0.7356
LEV	0.7737	1.1786	0.9091	0.0383
EV	-6.1258	65.3256	0.6028	4.4451

The mean value of share price volatility of commercial banks in Nepal is 65.21 percent which is quite above than 19 percent in Sri Lanka (Harshapriya, 2016) and lower than 94.4 percent in Malaysia (Zakariaet al., 2012). The mean share price volatility is in the line of Nazir*et al*. (2012), Habib *et al.*(2012),Lashgari&Ahmadi (2014) and Zainudin*et al.*(2018) who documented mean volatility of more than 50 percent in their studies. The SPV reported highest and lowest value of 322.26 and 2.23 percent respectively with overall fluctuation measured by the standard deviation is 61.18 percent for all samples during the study period. On average, the shareholders of Nepalese commercial banks receive Rs.23.03 per share of dividend with standard deviation of Rs.20.85.Similarly, the mean and SD of dividend payout ratio (DPR) found to be 81.96 and 145.84 percent respectively which is much higher than 24.89 and 22.16 percent in Malaysia (Zainudin*et al*.,
2018), 53.12 and 57 percent in Sri Lankan commercial banks (Harshpriya, 2016), 57 and 112 percent in Vietnamese market (Phan& Tran, 2019). The average DPR of Nepalese commercial bank is even higher than developed countries such as 45.88 percent in UK (Hussainey, 2011) and 49.5 percent in Australia (Allen and Rachim, 1996.) Another explanatory variable used in the study is dividend yields (DY) that record the mean score of 3.31 percent having highest degree of stability with lowest SD of 2.15 percent. This outcome is reliable with Zainudin*et al.*(2018), Harshemijoo*et al*.(2012), and Zakaria (2012) who also reported average DY of 3.80 percent. Hooi*et al*. (2015) found a DY yield of 3 percent and SD of 2 percent in Malaysian market.

Among the control variables, the average size of Nepalese commercial banks is 10.69 measured by the natural log of total assets. The value ranges between 8.25 and 12.45 with smallest and largest bank respectively which indicate that Nepalese bank do no differ significantly in terms of size as the SD of is 0.7831. Similarly, mean value of asset growth (AG) is 27.26 percent which indicate that on average the assets of commercial bank in Nepal grow by 27.26 percent each year. Further, the banks are financed 90.91 percent by debt as shown by the average leverage (LEV) score of 90.91 percent shown as in Table 1. A proxy of business risk, earning volatility (EV) of banks measured by rate of change in operating profit recorded the mean value of 60.28 percent per year.

5.2 Pearson Correlation Analysis of Variables

Table 2 demonstrates the correlation coefficients among all variables used in this research.

Table 2 Pearson Correlation Matrix

	SPV	DPS	DPR	DY	lnA	AG	LEV	EV
SPV	1.00							
DPS	-0.10	1.00						
DPR	-0.08	0.11	1.00					
DY	-0.254**	.225**	.144*	1.00				
lnA	-0.273**	0.350**	-0.02	0.424**	1.00			
AG	-0.01	-0.03	-0.01	0.02	0.156*	1.00		
LEV	0.143*	0.160*	-0.04	-.246**	-0.141*	0.195**	1.00	
EV	0.173**	-0.04	0.01	0.08	-0.04	0.00	-0.01	1.00

**, ** Correlation is significant at the 0.05 and 0.01 level respectively (2-tailed).*

At the first glance, it can be observed that, as expected, share price volatility (SPV) is negatively related with each of the dividend variables (DPS, DPR and DY) which signifies that larger the dividend payment, lower is the market risk arising from the movement of share price. This finding further, provides evidence that dividend payment could be a managerial tool to control the share price fluctuation. This finding is consistent withBaskin (1996),Nazir*et al.*(2010),Hussainey*et al.* (2011), Hooi*et al*. (2015) and Kumar (2016) but contradicts with Tahir (2017) and Suwanhirunkul&Masih (2018). Similarly, the correlation between size of the bank (lnA) and SPV is significant negative which indicated that the shareholders of larger banks face lower risk of price fluctuation. This finding is consistent with Hashemijoo (2012) and Al Quaduh& Yusuf (2015). The asset growth (AG) is also have inverse association with SPV implying that banks with higher growth opportunities have lower price volatility. Finally, the proportion of debt financing proxied by leverage (LEV) and business risk proxied by earning volatility (EV) have positive relationship with SPV. This result signifies that the fluctuation in operating profit causes the vulnerability of share price which confirms to Hashemijoo*et al.* (2012) and contradicts with Al Qudah and Yusuf (2015) and Almanaseer (2019).

5.3 Regression Analysis

Before applying the model some basic requirements that distort the regression results are checked.

5.3.1 Model Fit, Multicolinearity and Autocorrelation

The overall fit of the regression model is checked by the F-statistic at 5 percent level of significance. Multicolinearity problem that affect the ability of the model to explain the result is checked by variance inflation factors (VIF). If VIF are less than 5, regression models are free from Multicolinearity. Similarly, Durbin-Watson (D-W) coefficients are used to test the autocorrelation among regression residuals. If D-W coefficients are between 1 to 3 there is no autocorrelation problem in the regression model (Alsaeed, 2006). All these assumptions of regression models are presented and found no problematic for the analysis.

5.3.2 Result and Discussion

Table 3 Regression Result of Model 1

	Coefficient (β)	SE	t-stat	Sig.	VIF
(Constant)	1.012	1.253	0.808	0.420	
DPS	-0.001	0.002	-0.362	0.718	1.229
lnA	-0.189***	0.055	-3.403	0.001	1.262
AG	0.002	0.055	0.035	0.972	1.104
LEV	1.828*	1.082	1.689	0.093	1.147
EV	0.022**	0.009	2.578	0.011	1.003
R =0.336	R^2 =0.113	Adj. R^2=0.093	F-tat.=5.653	F-Prob.=0.000	D-W Stat.=1.411

**, ** and ***Significant at 10, 5 and 1 per cent levels, respectively*

The first model intends to determine the influence of DPS on SPV in accordance with the equation 1. Table 3 is the evident that explanatory variables explained 9.3 percent of the variations in SPV. The regression coefficient reveals that there is insignificant (p= 0.718 >0.05) inversecorrelation between DPS and SPV. This finding imply that dividend policy as proxied by DPS is not statistically significant to bring the fluctuations in share price.

Table 4 Regression Result of Model 2

	Coefficient (β)	SE	t-stat.	Sig.	VIF
(Constant)	1.266	1.172	1.079	0.282	
DPR	-0.034	0.026	-1.277	0.203	1.002
lnA	-0.198***	0.051	-3.910	0.000	1.061
AG	0.005	0.054	0.088	0.930	1.079
LEV	1.669	1.045	1.598	0.111	1.076
EV	0.023***	0.009	2.606	0.010	1.002
R =0.345	R^2 =0.119	Adj. R^2=0.099	F-Stat.=5.991	F-Prob.=0.000	D-W Stat.=1.415

****Significant at 1 percent level.*

The second model endeavors to find the impact of DPR on SPV in line of equation 2. Table 4 depicts the result which reveals that independent variables explained 9.9 percent of the discrepancy in SPV if DPR is used as dividend policy variables. Further, DPR id negatively associated with SPV but such association is not statistically significant (p= 0.203 > 0.05). Again, DPR as measure of dividend does not seem statistically significant for determining the SPV.

Table 5 Regression Result of Model 3

	Coefficient (β)	SE	t-stat.	Sig.	VIF
(Constant)	1.223	1.159	1.055	0.293	
DY	-4.885**	2.017	-2.421	0.016	1.289
lnA	-0.143***	0.055	-2.603	0.010	1.269
AG	0.004	0.054	0.082	0.935	1.079
LEV	1.213	1.055	1.149	0.252	1.119
EV	0.025***	0.009	2.855	0.005	1.013
R =0.368	R^2 =0.135	Adj. R^2=0.116	F-Stat.=6.945	F-Prob.=0.000	D-W Stat.=1.413

***, ****Significant at 5 and 1 percent levels, respectively*

Our 3rd model explains the impact of DY on SPV as presented in Table 5. The model explains 11.6 percent variation on dependent variable by the explanatory variables. Further, the result showed that as a dividend policy variable DY has significant negative influence on SPV (p= 0.016 < 0.05). This signifies that the banks paying higher dividend relative to share price causes greater fluctuation in stock value. These results are similar toearlier studies of Baskin (1989), Nazir*et al.* (2010), Hussainey*etal.* (2011), Hashemijoo*et al.*(2012) Zainudin*et al*. (2016) and against the findings of Allen &Rachim (1996), Rashid & Rahman (2008) Habib *et al*. (2012) who demonstrated a positive relationship of DY with SPV with rejectionof any statistical importance.

In all three models, the control variable lnA, a proxy of bank size has significant negative impact on the SPV as hypothesized. This finding documents that market price of share of larger banks are less volatile than the smaller one. This finding is consistent with Baskin (1989), Allen &Rachim (1996), Rashid & Rahman (2008), Hussainey*et al.* (2011), Habib*et al.* (2012) Hashemijoo*et al.*(2012) Ramadan (2013). The end result of this study, further accounted that threre ispositive influence ofgrowth opportunitieson SPV as expected in all three models. This finding indicates that banks with rapid invest opportunities face their shares to be more volatile however such influence is not statistically significant. Another control variables financial leverage, LEV found to be positively regressed with SPV as expected in all three models. The results fortify the financial theory that the higher the leverage, the amplified risk and successively greater stock price volatility(Alaoui*et al.*, 2017). However, such

positive relationship is statistically insignificant with the exception of Model 1. As our expected sign, the results assure a positive significant impact of EV on SPV in all three models which point towards that the firms with aexcess level of earnings volatility have a higherintensity of share price volatility because higher EV specifies higherdegree of business risks in the bank. This result matches with Hashemijoo*et al.* (2012) Hooi*et.al* (2015) Zainudin*et al.* (2016) but contradicts with Allen &Rachim (1996) and AlQudah& Yusuf (2015).

6. Conclusion and Implications

The study examined the influence of dividend policy on share price volatility for banks listed in NEPSE. We covered the data of 19 commercial banks for the period of 12 years from 2009-2020. Apart from the mainstream variables of dividend policy such as DPS, DPR and DY, we also examined the effect of some control variables like bank size, assets growth, financial leverage and earning fluctuation on share price volatility. Based on the empirical results, we found dividend yield (DY) most significant attribute leading share price volatility for commercial banks in Nepal. The banks paying higher dividend yield are considered to be less risky in the form of price fluctuation. Unlike the evidences provided from developed market such as Baskin (1989), Allen &Rachim (1996) and Hussainey*et al.* (2011), dividend yield not the DPR found to be share price affecting variable in developing market like Nepal. Among the control variables, bank size stood most significant factor affecting SPV. It inversely affects SPV which is statistically significant meaning that the share price of larger banks tends to be less volatile. Another variable that significantly positively influences SPV is business risk proxied by earning volatility indicating that stable profitability leads stable price of shares. However, asset growth and financial leverage are found positive but statistically insignificant in determining the SPV.

This type of finding has a great deal of importance for policy makers, bank management and investors. They should be cautioned while changing dividend yield because the change will directly affects the SPV of banks. Managers may use dividend policy to affect market risk arising from SPV. Similarly, investors should develop appropriate strategies and techniques for mitigation and diversification of such risk. Further, bank size inversely affects SPV, so they are recommended to form a portfolio of shares of larger banks to minimize the price risk.

This study is developed on the number of limitations. The sample of 19 banks would be inadequate and thus, it is not representative of the SPV behavior across entire banking sectors of NEPSE. Studies of diverse segment of industry over a lengthy time prospect may be essential to achieve inclusive understanding on dividend policy behavior of Nepalese firms. Similarly, this paperemploys seven firm-specific predicting variables as the determinants of share price volatility; therefore there is a room for further extension of the inference model by adding economy-wide variables like inflation rate, GDP, interest rate may offer a more complete justification on the behavior of stock price volatility by using non-linear methods and innovative substitute to better incarcerate volatility.

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