Impact of Stock Market Liquidity on Dividend Policy of Nepalese Commercial Banks

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Abstract

This study examines the impact of stock market liquidity on dividend policy of Nepalese commercial banks. Dividend payout ratio and dividend yield are selected as the dependent variables. The selected independent variables are capitalization, non-performing loan, profitability, liquidity, firm size and lagged market price. The study is based on secondary data of 16 commercial banks with 112 observations for the study period from 2015/16 to 2021/22. The data were collected from Banking and Financial Statistics published by Nepal Rastra Bank, publications and websites of Nepal Rastra Bank (NRB) and annual reports of the selected commercial banks. The correlation coefficients and regression models are estimated to test the significance and importance of stock market liquidity on dividend policy of Nepalese commercial banks.

The study showed that liquidity has a positive impact on dividend payout ratio and dividend yield. It means that increase in liquidity leads to increase in dividend payout ratio and dividend yield. Furthermore, profitability has a positive impact on dividend payout ratio and dividend yield. It indicates that increase in profitability leads to increase in dividend payout ratio and dividend yield. Likewise, firm size has positive impact on dividend payout ratio and dividend yield. It means that larger the firm size, higher would be the dividend payout ratio and dividend yield. Similarly, lagged market price has a positive impact on dividend payout ratio. It indicates that increase in lagged market price leads to increase in dividend payout ratio. Further, market capitalization has a positive impact on dividend payout ratio. It means higher the market capitalization, higher would be the dividend payout ratio. Likewise, non-performing loan has a negative impact on dividend payout ratio. It indicates that increase in non-performing loan leads to decrease in dividend payout ratio.

Keywords: capitalization, non-performing loan, profitability, liquidity, firm size. lagged market price

1. Introduction

Dividend decision is one of the most important concerns for any company since many private investors invest to get return. The efficiency of the banking sector is important for the stock market liquidity, dividend payout and dividend yield as well as macro-economic stability. The decision to determine how large profit to be distributed to shareholders and how large

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the cash should be reinvested by the company (retained earnings) is called the dividend policy. Dividend policy is one of important factor that must be considered by management in managing the company. The dividend is the amount paid to equity shareholders for their investment in the firm and the compensation for supporting the risks inherent in the business (Reyna, 2017). It is crucial for firm management to decide the portion of earnings to be distributed to shareholders as dividends at the end of each year. On the other hand, the firm needs to retain profits to finance its long-term growth (Bataineh, 2021). Any policy that leads to a maximization of a firm's stock price, which in turn leads to the maximization of shareholder wealth, is referred to as an optimal dividend policy (Gul *et al.,* 2012). Dividend policy is thus an important part of the firm's long-run financing strategies. Profitable banks can diversify their business, effectively can hedge against adverse effects and can reward its stakeholders in many ways (Adjaoud and Ben-Amar, 2010).

Stock market liquidity refers to the ease with which an investor can buy or sell a particular stock without significantly affecting its price. It is a measure of how quickly an asset can be converted into cash without any price discount. Brennan *et al.* (2012) referred stock market liquidity as the ability of the market to absorb a huge volume of securities at a lower execution cost within a short period without having a significant effect on security prices. Ellington (2018) emphasized that during the period of crisis, lower liquidity levels adversely hamper economic growth. Apergis *et al.* (2015) concluded that the future outlook for the economy depends on investor's sentiments which in turn are determined by liquidity conditions in the stock market. Dividend payments are usually part of the company's strategic policy to return a portion of its profits to its shareholders. A company decides to declare its dividend to its equity shareholder as a part of return on their investment only of the financial report of the company shows net profit during the financial year (Van Horne, 2000). Dividend strategy holds equal significance for both managers and investors, given that investors need to strategize their investment portfolio returns. Thus, selecting a suitable dividend policy for a company is one of the most important decisions for the management and investors (Khan *et al.,* 2011). Dividend is one of the major reasons for which public are interested to invest money on the shares of bank or other institution. When stock market is more liquid, in lieu of relying on dividend, they can sell out a proportion of their holdings at a low trading cost to meet their liquidity need. Liquidity market can positively affect dividend by increasing firm performance. In addition, it is well established that firms with higher performance are more likely pay dividend and pay at a higher level (Fama and French, 2001).

Khan and Ahmad *(*2017) determined corporate dividends policy for companies listed on the Abu Dhabi Stock. The results of the study indicated that profitability and size of the firm are the most significant factors that affect corporate dividends policy. Rehman and Takumi (2012) examined the profitability and liquidity as determinants of dividend payout of 200 companies with highest market capitalization in the Karachi Stock Exchange. The study found that profitability and liquidity are significant variables in determining the dividend payout. The study also revealed that companies which are more profitable and liquid have more chances of declaring dividends. Al-Malkawi (2008) examined the impact of profitability, growth risk and liquidity over on the dividend policy of a firm with the help financial data over 10000 public firm with Ordinary Least Square (OLS). The study concluded that there is positive and significant relationship of dividend payout ratio with the profitability (return on equity), growth, risk (be liquidity, control and expansion (growth in capital spending). Al-Najjar and Kilincarslan (2016) found that larger firms have a higher cash flow and liquid assets, even when they have a low profitability, they pay more dividends to follow their stable dividend policy and maintain the trust from their investors. A large firm typically has better access to capital markets and finds it easier to raise funds with lower cost and fewer constraints compared to a small firm. Large firms are more likely to afford paying higher dividends to shareholders. The size is a significant determinant of a firm's dividend policy, and that it is positively related to dividends (Fama and French, 2001). Large enterprises are more likely to be mature and thus have easier access to capital markets, and are able to pay more dividends (Aivazian *et al*., 2003).

Bustani *et al.* (2021) examined the effect of earning per share (EPS), price to book value (PBV), dividend payout ratio (DPR), and net profit margin (NPM) on the stock price in Indonesia Stock Exchange. The study revealed a significant relationship of earning per share, price to book value, and dividend payout ratio on stock prices. Tsoukalas and Sil (1999) investigated the impact of dividend/price ratio and dividend growth on the share prices movements of UK stock market. The study found that dividend/price ratio predicts real stock returns for the UK stock market. The study showed that there was a strong relationship between real stock returns and dividend yields. Sen and Ray (2003) examined the key determinants of stock price in India. The empirical study revealed dividend pay-out was an important factor affecting stock prices. The study also found earnings per share has a very weak impact on the share prices. Al-Deehani (2005) examined the determinants of share price for companies listed on Kuwait Stock Exchange. The findings showed

that previous earnings per share, cash dividends per share, previous cash dividends per share, return on equity, price to book value ratio, previous cash flow per share and cash flow per share are all highly correlated with the share price. Sharma and Singh (2006) analyzed the determinants of equity share price in Indian corporate sector. The study found that earnings per share, price-earnings ratio, dividend per share, dividend coverage, dividend payout, book value per share, and firm size are the significant determinants of share prices. Somoye et al. (2009) examined the factors influencing equity prices in the Nigerian stock market. The empirical results showed dividend per share, earnings per share and GDP exerts positive correlation with stock prices but are not significant determinants of share price.

Jabbouri (2016) assessed the main factors influencing dividend policy in MENA emerging markets during the period between 2004 and 2013. Using panel data analysis, the study documented that dividend policy is positively related to size, current profit, and liquidity and negatively associated with leverage, growth, free cash flow and the state of the economy. Pruitt and Gitman (1991) described that the dividend payout is determined on current and future profits. Huda and Farah (2011) found that dividend payout decision in banking industry is dependent upon income, earnings per share, cash and retained earnings.Kania and Bacon (2005) explored that dividend payout ratio is dependent on profits, growth, risk, liquidity, ownership control and planning for expansion. Agyei and Marfo-Yiadom (2011) assessed the relationship between dividend policy and performance of banks in Ghana. The study used panel data constructed from the financial statements of 16 commercial banks in Ghana for a period of 5 years, from 1999-2003. The study found that dividend payout policy in the banking sector of Ghana is based on profits, collateral capacity, leverage, and growth rate. Fama and French (2001) revealed that the dividend payout is dependent with the size of firm, profits, growth.

In the context of Nepal, Subedi (2023) examined the determinants of market stock price movement of Nepalese commercial banks. The study showed that earnings per share, price earnings ratio, dividend per share, inflation and return on assets have positive impact on market stock price movement. Baral and Pradhan (2018) examined the impact of dividend policy on the share price of commercial bank in Nepal. The study found a positive relationship between dividend policy and market price per share in Nepal. Sapkota (2014) analyzed the determinants of share price of Nepalese commercial banks. The study found that earning per share, dividend per

share, price earnings ratio, return on assets and gross domestic product have significant positive impact on market price per share. Moreover, Wagle (2021) assessed the determinants of the stock market price in commercial banks. The study found that firm's market to book, price earnings and earnings yield proportion have significant positive association with the stock market price. Joshi (2012) examined the impact of dividends on stock price in the context of Nepal. The study concluded that the impact of dividends is more pronounced than that of retained earnings in the context of Nepal. The study also showed that dividend has a significant relationship with market stock price in both banking and non-banking sector.

The above discussion shows that empirical evidences vary greatly across the studies on the impact of stock market liquidity in dividend policy. 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 analyze the impact of stock market liquidity in dividend policy in Nepalese commercial banks. Specifically, it examines the relationship of profitability, firm size, liquidity, non-performing loan, capitalization and lagged market price with dividend payout ratio and dividend yield of Nepalese commercial banks.

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 the conclusion.

1. Methodological aspects

The study is based on the secondary data which were gathered from 16 Nepalese commercial banks for the study period from 2015/16 to 2021/22, leading to a total of 112 observations. The study has employed purposive sampling method. The main sources of data include Banking and Financial Statistics published by Nepal Rastra Bank and the annual report of respective banks. This study is based on descriptive as well as causal comparative research designs. Table 1 shows the list of commercial banks selected for the study along with the study period and number of observations.

Table 1

List of commercial banks selected for the study along with study period and number of observations

S.N.	Name of the banks	Study period	Observations
1	Agricultural Development Bank Limited	2015/16 to 2021/22	7
2	Nepal Bank Limited	2015/16 to 2021/22	7
3	Nabil Bank Limited	2015/16 to 2021/22	7
4	Himalayan Bank Limited	2015/16 to 2021/22	7
5	Everest Bank Limited	2015/16 to 2021/22	7
6	NMB Bank Limited	2015/16 to 2021/22	7
7	Nepal Investment Bank Limited	2015/16 to 2021/22	7
8	Kumari Bank Limited	2015/16 to 2021/22	7
9	Sidhartha Bank Limited	2015/16 to 2021/22	7
10	Sanima Bank Limited	2015/16 to 2021/22	7
11	Standard Chartered Bank Nepal Limited	2015/16 to 2021/22	7
12	Machhapuchchhre Bank Limited	2015/16 to 2021/22	7
13	Nepal SBI Bank Limited	2015/16 to 2021/22	7
14	NIC Asia Bank Limited	2015/16 to 2021/22	7
15	Citizens Bank International Limited	2015/16 to 2021/22	7
16	Prime Commercial Bank Limited	2015/16 to 2021/22	7
Total number of observations			112

Thus, the study is based on the 112 observations.

The model

The model estimated in this study assumes that dividend policy depends on stock market liquidity. The dependent variables selected for the study are dividend payout ratio and dividend yield. Similarly, the selected independent variables are profitability, firm size, liquidity, non-performing loan, capitalization and lagged market price. Therefore, the models take the following forms:

$$DPR = \beta_0 + \beta_1 LQ + \beta_2 SIZE + \beta_3 PR + \beta_4 NPL + \beta_5 CAP + \beta_6 LAG + e$$

$$DY = \beta_0 + \beta_1 LQ + \beta_2 SIZE + \beta_3 PR + \beta_4 NPL + \beta_5 CAP + \beta_6 LAG + e$$

Where,

DPR = Dividend payout ratio as measured by the ratio of total dividends to net income, in percentage.

DY = Dividend yield as measured by the ratio of annual dividend per share to market price per share, in percentage.

LQ = Liquidity as measured by the ratio of total loans to total deposits, in percentage.

SIZE = Firm size as measured by total assets, Rs. in Billion.

PR = Profitability as measured by the ratio of net profit to total assets of the

banks, in percentage.

NPL = Nonperforming loan as measured by the ratio of total nonperforming loans to total assets, in percentage.

CAP = Market capitalization as measured by the total market value of shares, Rs. in Billion.

LAG = Lagged market price as measured by the previous year's market price per share, in Rs.

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

Liquidity

Liquidity is an estimation of how quickly an asset or security can be converted into cash at a price that reflects its intrinsic value. Alli *et al.* (1993) argued that dividend payments depend more on cash flows, which reflect the company's ability to pay dividends. According to Jensen and Smith (2000), the firms with high cash flows pay higher dividends in order to diminish the agency conflict between their managers and shareholders. In addition, Brockman *et al.* (2008) argued that when stock is more liquid, firm managers take repurchase in consideration first and then spend the remaining in the form of dividend. Based on it, this study develops the following hypothesis:

H_1: There is positive relationship of liquidity with dividend policy.

Firm size

Pattiruhu and Paais (2020) investigated the relationship between the variables of current ratio, return-on-equity, return-on-assets, debt-to-equity ratio, and firm size on dividend policy in real estate and property companies listed on the Indonesia Stock Exchange in the period 2016-2019. The results of this study showed that the CR, ROE, and firm size have positive and significant effect on dividend policy. Rizqia and Sumiati (2013) assessed the effect of managerial ownership, financial leverage, profitability, firm size, and investment opportunity on dividend policy and firm value. The results showed that managerial ownership, financial leverage, profitability, firm size and investment opportunity have a positive effect on dividend policy of manufacturing companies listed on Indonesia Stock Exchange. Dickens *et al.* (2002) stated that large companies tend to be more competitive, with access to capital, better credit rating, and more customers, which will enhance their profitability and increase their ability to pay higher dividends. Based on it, this study develops the following hypothesis:

H_2: There is a positive relationship of firm size with dividend policy.

Non-performing loan

Ahmad and Muqaddas (2016) explored the influence of financial efficiency, safety, risk and profitability on dividend policy using panel data of 10 commercial banks listed at Pakistan Stock Exchange (PSX) for a period of 9 years between 2006 to 2014. The study concluded that safety, risk and profitability measures are relatively strong measures for defining dividend policy. The results are strongly indicating that safer the banks, the greater payout ratio the bank has. Moreover, banks with higher profitability and lower non-performing loans (NPLs) are believed to pay more dividends. Brockman and Unlu (2009) stated that non-performing loans have been established as a critical determinant of banks' dividend policies, demonstrating a significant negative association. Banks grappling with higher levels of non-performing loans are likely to face constraints in the distribution of dividends due to increased financial vulnerability. Al-Kuwari (2009) also concluded that the dividend payout is positively correlated with size and negatively associated with leverage ratio and nonperforming loans. Based on it, this study develops the following hypothesis:

H_3: There is negative relationship of nonperforming loans with dividend policy.

Capitalization

Das and Bhattacharya (2017) analyzed the relationship between dividend policy and market capitalization in the context of Indian IT Companies. The study found moderately high level of positive correlation between the variability of market capitalization and dividend paid. Haider and Maqbool (2016) explored the impact of a firms' dividend policy on its market capitalization from 2005 to 2014 of companies listed in automobile assembler sector of Karachi stock exchange. The study revealed that dividend policy has an insignificant positive relationship with market capitalization of firms listed in automobile sector. DeAngelo *et al.* (2006) stated that size of a firm, as measured by market capitalization, is a critical factor in the determination of dividend policies. Larger firms with greater market capitalizations exhibit a higher propensity for paying dividends, reflecting their financial stability and capacity for distributing cash to shareholders. Based on it, this study develops the following hypothesis:

H_4: There is positive relationship of capitalization with dividend policy.

Lagged market price

Lagged market price typically refers to a historical or delayed market price of a financial instrument. It represents the closing price of the stock in

the previous year. Black (1976) revealed that lagged market prices have a significant influence on a firm's dividend policy, suggesting that past stock performance plays a role in determining the level and stability of dividend payments. Investors often use historical market prices as an indicator of a company's financial health and future dividend expectations. Azhagaiah and Priya (2008) showed a positive relationship between dividend policy and lagged market price of share. Moreover, Joshi (2012) revealed that dividend is positively related to the historical market prices. Based on it, this study develops the following hypothesis:

H_5: There is positive relationship of lagged market price with dividend policy.

Profitability

Profitability is a key financial metric that measures a company's effectiveness in generating earnings in relation to its expenses, offering insights into its operational efficiency. Budagaga (2020) stated that there is robust association between a firm's profitability and its dividend policy, highlighting that companies with healthier profit margins exhibit a greater propensity for consistent dividend distributions. Profitability, as a key financial metric, serves as a fundamental factor influencing managerial decisions on dividend payouts. Li and Chen (2020) found profitability as a critical determinant of a firm's dividend policy, indicating that companies with higher profitability levels are more likely to maintain stable and generous dividend payments. Investors often view strong profitability as a positive signal for a company's ability to sustain dividends over time. Indrayati et al. (2021) revealed that the relationship between profitability and dividend policy demonstrates a positive and statistically significant correlation, indicating that companies with robust profitability metrics are more likely to implement and maintain dividend payments. The findings emphasize the integral role of profitability in influencing corporate dividend decisions. Dada et al. (2015) suggested a strong and positive connection between a firm's profitability and its dividend policy, suggesting that companies with higher profitability levels are better positioned to provide consistent and favorable returns to shareholders. This underscores the importance of profitability as a key determinant in shaping dividend distribution strategies. Based on it this study develops the following hypothesis:

H_6: There is positive relationship of profitability with dividend policy.

3. Results and discussion

Descriptive statistics

Table 2 presents the descriptive statistics of selected dependent and

independent variables during the period 2015/16 to 2021/22.

Table 2

Descriptive statistics

This table shows the descriptive statistics of dependent and independent variables of 16 Nepalese commercial banks for the study period from 2015/16 to 2021/22. The dependent variables are DPR (Dividend payout ratio as measured by the ratio of total dividends to net income, in percentage) and DY (Dividend yield as measured by the ratio of annual dividend per share to market price per share, in percentage). The independent variables are LQ (Liquidity as measured by the ratio of total loans to total deposits, in percentage), SIZE (Firm size as measured by total assets, Rs. in Billions), PR (Profitability as measured by the ratio of net profit to total assets of the banks, in percentage), NPL (Non-performing loan as measured by the ratio of total nonperforming loans to total assets, in percentage), CAP (Market capitalization as measured by the total market value of shares, Rs. in Billions) and LAG (Lagged market price as measured by the previous year's market price per share, in Rs.).

Variables	Minimum	Maximum	Mean	Std. Deviation
CAP	10	288	51.95	46.77
NPL	0	5	1.15	0.97
LQ	4	97	76.59	22.48
PR	0	3	1.59	0.47
SIZE	11	359	146.30	74.27
LAG	186	3600	662.46	573.30
DPR	0	297	67.21	49.40
DY	0	10	3.44	2.37

Source: SPSS output

Correlation analysis

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

Table 3

Pearson's correlation coefficient matrix

This table shows the bivariate Pearson's correlation coefficients of dependent and independent variables of 16 Nepalese commercial banks for the study period from 2015/16 to 2021/22. The dependent variables are DPR (Dividend payout ratio as measured by the ratio of total dividends to net income, in percentage) and DY (Dividend yield as measured by the ratio of annual dividend per share to market price per share, in percentage). The independent variables are LQ (Liquidity as measured by the ratio of total loans to total deposits, in percentage), SIZE (Firm size as measured by total assets, Rs. in Billions), PR (Profitability as measured by the ratio of net profit to total assets of the banks, in percentage), NPL (Non-performing loan as measured by the ratio of total nonperforming loans to total assets, in percentage), CAP (Market capitalization as measured by the total market value of shares, Rs. in Billions) and LAG (Lagged market price as measured by the previous year's market price per share, in Rs.).

Variables	CAP	NPL	LQ	PR	SIZE	LAG	DPR	DY
CAP	1							
NPL	-0.094	1						
LQ	0.065	0.212*	1					
PR	0.115	0.108	0.109	1				
SIZE	-0.016	0.158	0.336**	0.391**	1			
LAG	0.447**	-0.265**	-0.113	0.364**	0.191*	1		
DPR	0.319**	-0.179	0.423**	0.099	0.238*	0.355**	1	
DY	-0.050	0.001	0.591**	0.133	0.204*	-0.123	0.694**	1

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

Table 3 shows that market capitalization has positive relationship with dividend payout ratio. It means higher the market capitalization, higher would be the dividend payout ratio. Likewise, non-performing loan has a negative relationship with dividend payout ratio. It indicates that increase in non-performing loan leads to decrease in dividend payout ratio. Further, liquidity has a positive relationship with dividend payout ratio. It means that increase in liquidity leads to increase in dividend payout ratio. Furthermore, profitability has a positive relationship with dividend payout ratio. It indicates that increase in profitability leads to increase in dividend payout ratio. Likewise, firm size has positive relationship with dividend payout ratio. It means that larger the firm size, higher would be the dividend payout ratio. Similarly, lagged market price has a positive relationship with dividend payout ratio. It indicates that increase in lagged market price leads to increase in dividend payout ratio.

Similarly, market capitalization has a negative relationship with dividend yield. It means that higher the market capitalization, lower would be the dividend yield. Likewise, non-performing loan has a positive relationship with dividend yield. It means that increase in non-performing loan leads to increase in dividend yield. However, liquidity has a positive relationship with dividend yield. It indicates that increase in liquidity leads to increase in dividend yield. Likewise, profitability has a positive relationship with dividend yield. It means that increase in profitability leads to increase in dividend yield. Similarly, firm size has a positive relationship with dividend yield. It means that larger the firm size, higher would be the dividend yield. Furthermore, lagged market price has a negative relationship with dividend yield. It indicates that increase in lagged market price leads to decrease in dividend yield.

Regression analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been carried out and results are presented in Table 4 and Table 5. More specifically, Table 4 shows the regression results of liquidity, firm size, profitability, non-performing loan, market capitalization and lagged market price with dividend payout ratio of Nepalese commercial banks.

Table 4

Estimated regression results of liquidity, firm size, profitability, non-performing loan, capitalization and lagged market price on dividend payout ratio

The results are based on panel data of 16 commercial banks with 112 observations for the study period from 2015/16 to 2021/22 by using linear regression model. The model is DPR = $\beta_0 + \beta_1 LQ + \beta_2 SIZE + \beta_3 PR + \beta_4 NPL + \beta_5 CAP + \beta_6 LAG + e$ where, the dependent variable is DPR (Dividend payout ratio as measured by the ratio of total dividends to net income, in percentage). The independent variables are LQ (Liquidity as measured by the ratio of total loans to total deposits, in percentage), SIZE (Firm size as measured by total assets, Rs. in Billions), PR (Profitability as measured by the ratio of net profit to total assets of the banks, in percentage), NPL (Non-performing loan as measured by the ratio of total nonperforming loans to total assets, in percentage), CAP (Market capitalization as measured by the total market value of shares, Rs. in Billions) and LAG (Lagged market price as measured by the previous year's market price per share, in Rs.).

Model	Intercept	Regression coefficients of						Adj. R_bar^2	SEE	F-value
		CAP	NPL	LQ	PR	SIZE	LAG			
1	49.768 (7.452)	0.335 (3.511)						0.093	47.040	12.330
2	77.574 (10.827)		-9.049 (1.897)					0.023	48.830	3.598
3	-3.917 -(0.256)			0.930 (4.846)				0.171	45.187	23.482
4	50.644 (3.032)				10.350 (1.033)			0.001	49.388	1.068
5	44.121 (4.355)					0.157 (2.554)		0.048	48.208	6.523
6	46.732 (6.800)						0.031 (3.928)	0.118	46.819	15.427
7	59.261 (6.780)	0.321 (6.780)	-7.624 (1.665)					0.108	46.662	7.652
8	-9.752 (0.666)	0.279 (3.290)	-12.621 (3.026)	1.005 (5.567)				0.303	41.430	16.804
9	-16.380 (0.879)	0.273 (3.186)	-12.901 (3.063)	0.996 (5.482)	4.958 (0.577)			0.299	41.561	12.607
10	-14.855 (0.802)	0.285 (3.342)	-13.243 (3.165)	0.900 (4.740)	0.743 (0.081)	0.100 (1.635)		0.310	41.233	10.781
11	-19.386 (1.075)	0.155 (1.647)	-9.306 (2.187)	1.023 (5.410)	10.151 (1.068)	0.064 (1.040)	0.027 (3.065)	0.364	39.930	11.218

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. Dividend payout ratio is dependent variable.

Table 4 shows that the beta coefficients for capitalization are positive with dividend payout ratio. It indicates that capitalization has a positive effect on dividend payout ratio. This finding is similar to the findings of Haider and Maqbool (2016). Similarly, the beta coefficients for non-performing loan are negative with dividend payout ratio. It indicates that non-performing loan has a negative effect on dividend payout ratio. This finding is consistent with the findings of Ahmad and Muqaddas (2016). Similarly, the beta coefficients for liquidity are positive with dividend payout ratio. It indicates that liquidity has a positive effect on dividend payout ratio. This finding is similar to the findings of Brockman *et al.* (2008). Furthermore, the beta coefficients for profitability are positive with dividend payout ratio. It indicates that profitability has a

positive effect on dividend payout ratio. This finding is consistent with the findings of Budagaga (2020). Moreover, the beta coefficients for firm size are positive with dividend payout ratio. It indicates that firm size has a positive effect on return on dividend payout ratio. This finding similar to the findings of Dickens *et al.* (2002).

The estimated regression results of liquidity, firm size, profitability, non-performing loan, capitalization and lagged market price with dividend yield of Nepalese commercial banks have been presented in Table 5.

Table 5

Estimated regression results of liquidity, firm size, profitability, non-performing loan, capitalization and lagged market price on dividend yield

The results are based on panel data of 16 commercial banks with 112 observations for the study period from 2015/16 to 2021/22 by using linear regression model. The model is $DY = \beta_0 + \beta_1 LQ + \beta_2 SIZE + \beta_3 PR + \beta_4 NPL + \beta_5 CAP + \beta_6 LAG + e$ *where, the dependent variable is DY (Dividend yield as measured by the ratio of annual dividend per share to market price per share, in percentage). The independent variables are LQ (Liquidity as measured by the ratio of total loans to total deposits, in percentage), SIZE (Firm size as measured by total assets, Rs. in Billions), PR (Profitability as measured by the ratio of net profit to total assets of the banks, in percentage), NPL (Non-performing loan as measured by the ratio of total nonperforming loans to total assets, in percentage), CAP (Market capitalization as measured by the total market value of shares, Rs. in Billions) and LAG (Lagged market price as measured by the previous year's market price per share, in Rs.).*

Model	Intercept	Regression coefficients of						Adj. R_bar^2	SEE	F-value
		CAP	NPL	LQ	PR	SIZE	LAG			
1	3.575 (10.271)	-0.002 (0.510)						0.007	2.387	0.260
2	3.439 (9.120)		0.004 (0.013)					0.010	2.391	0.004
3	-1.239 (1.880)			0.062 (7.406)**				0.343	1.936	54.851
4	2.338 (2.777)				0.705 (1.364)			0.008	2.369	1.861
5	2.510 (5.063)					0.006 (2.120)*		0.033	2.340	4.494
6	3.810 (10.646)						-0.001 (1.244)	0.005	2.385	1.547
7	3.577 (7.677)	-0.002 (0.508)	0.002 (0.007)					0.017	2.399	0.129
8	-0.863 (1.245)	-0.005 (1.301)	0.268 (1.125)	0.064 (7.597)**				0.348	1.929	19.363
9	-1.643 (1.777)	-0.006 (1.482)	0.242 (1.012)	0.063 (7.512)**	0.543 (1.271)			0.352	1.923	15.015
10	-1.682 (1.801)	-0.006 (1.510)	0.233 (0.966)	0.065 (7.196)**	0.620 (1.319)	0.001 (0.403)		0.347	1.931	11.943
11	-1.714 (1.827)	-0.003 (0.634)	0.320 (1.273)	0.061 (6.687)**	0.872 (1.770)	0.001 (0.090)	-0.001 (1.300)	0.359	1.923	10.426

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. Dividend yield is dependent variable.

Table 5 shows that the beta coefficients for capitalization are negative

with dividend yield. It indicates that capitalization has a negative effect on dividend yield. This finding is inconsistent with the findings of DeAngelo *et al.* (2006). Likewise, the beta coefficients for non-performing loan are positive with dividend yield. It indicates that non-performing loan has a positive effect on dividend yield. This finding contradicts with the findings of Al-Kuwari (2009). Similarly, the beta coefficients for liquidity are positive with dividend yield. It indicates that liquidity has a positive effect on dividend yield. This finding is similar to the findings of Alli *et al.* (1993). Furthermore, the beta coefficients for profitability are positive with dividend yield. It indicates that profitability has a positive effect on dividend yield. This finding is consistent with the findings of Indrayati et al. (2021). Moreover, the beta coefficients for firm size are positive with dividend yield. It indicates that firm size has a positive effect on return on dividend yield. This finding similar to the findings of Rizqia and Sumiati (2013).

4. Summary and conclusion

Dividend decision is one of the most important financial decisions a firm takes. The dividend is the amount paid to equity shareholders for their investment in the firm and the compensation for supporting the risks inherent in the business. It is crucial for firm management to decide the portion of earnings to be distributed to shareholders as dividends at the end of each year. On the other hand, the firm needs to retain profits to finance its long-term growth. Any policy that leads to a maximization of a firm's stock price, which in turn leads to the maximization of shareholder wealth, is referred to as an optimal dividend policy. Dividend policy is thus an important part of the firm's long-run financing strategies. In today's corporations, dividend policy has gone beyond the scope to include issues as whether to distribute cash via share repurchase or through specially-designated rather than regular dividends. Dividend policy is one of the most important and controversial corporate finance decisions.

This study attempts to analyze the impact of stock market liquidity on dividend policy of Nepalese commercial banks. The study is based on secondary data of 16 commercial banks with 112 observations for the study period from 2015/16 to 2021/22.

The study showed that market capitalization, firm size, liquidity, profitability, lagged market price are the positive factors affecting dividend payout ratio of Nepalese commercial banks. Thus, higher the market capitalization, firm size, liquidity, profitability, lagged market price market, higher would be the dividend ratio. However, non-performing loan has the negative impact on dividend payout ratio. The study concluded that liquidity,

profitability, non-performing loan and firm size have positive impact on dividend yield indicating that higher the liquidity, profitability, non-performing loan and, firm size, higher would be the dividend yield. However, market capitalization and lagged market price negatively affect dividend yield. Thus, higher the capitalization and lagged market price, lower would be the dividend yield. The study also concluded that liquidity is the most influencing factors that explains the changes in the dividend policy in terms of both the dividend payout ratio and dividend yield of Nepalese commercial banks.

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