# Dividends, earnings and stock prices: a case of Nepalese insurance companies 

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#### Abstract

The study examines the relationship among dividends, earnings and stock prices of Nepalese insurance companies. Market price per share and stock return are the dependent variables. The independent variables are earning per share, dividend per share, dividend payout ratio, PE ratio, return on assets and return on equity. This study is based on secondary data of 15 insurance companies with 105 observations for the period of $2011 / 12$ to 2017/18. The data were collected from the annual reports of the selected insurance companies. The regression models are estimated to test the significance and importance of dividends, earnings and stock prices in Nepalese insurance companies. The result shows that earning per share has a positive impact on market price per share and stock returns. It reveals that increase in earnings per share leads to increase in market price per share and stock returns. Similarly, PE ratio has a positive impact on market price per share and stock returns. It shows that increase in PE ratio leads to increase in market price per share and stock returns. Likewise, return on equity has a positive impact on market price per share and stock returns. Similarly, higher the return on equity, higher would be the market price per share and stock returns. The result also shows that dividend per share has a positive impact on market price per share. It indicates that increase in dividend per share leads to increase in market price per share. Similarly, dividend payout ratio has a positive impact on market price per share. It shows that increase in dividend payout ratio leads to increase in market price per share. Likewise, return on assets has a positive impact on stock return. It shows that higher the return on assets, higher would be the stock returns. However, dividend payout ratio has negative impact on stock return which reveals that higher the dividend payout ratio lower would be the stock return. Likewise, dividend per share has a negative impact on stock return which reveals that higher the dividend per share lower would be the stock return. Similarly, return on assets has negative impact on market price per share which reveals that higher the return on assets lower would be the market price per share.


Keywords: Earning per share, dividend per share, dividend payout ratio, price earnings ratio, return on assets, return on equity, stock return and market price per share.

## Introduction

Dividends are payments made by a company to a shareholder usually after a company earns a profit. Dividend policy is the major decisions of a firm to determine the percentage of earnings a firm pays in cash to its stockholders. It also shows the financial stability and profitability of a company (Ashamu et al., 2012). Stock price is a current price that share of stock is trading on the market. Investors generally will get the first

[^0]information about the company through the IPO. The capital owners need to have some information related to the dynamics of stock price in order to take a decision on the company's shares to be eligible to choose (Margaretha and Isni, 2007).

A company pays dividends to reward its existing shareholders and also encourages new investors to purchase stock in a company. A company can pay dividends in the form of cash, additional shares of stock in the company or the combination of both. Thus, payment of large dividends reduces risk and influence on stock price which is roadmap for the future earnings (Gordon, 1963). Dividends serve as an announcement of the company's success because dividends are issued from a company's retained earnings. Companies that are substantially profitable issue dividends with any consistency (Gordon, 1959). Before a dividend is distributed, the issuing company must first declare the dividend amount and the date when it will be paid. It also announces the last date when shares can be purchased to receive the dividend, called the ex-dividend date. This date is generally one business days before the date of record, which is the date when the company reviews its list of shareholders (Nishat et al., 2004).

Dividend policy determines the division of earnings between payments to stockholders and reinvestment in the firm (Fama et al., 1988). Shafi (2014) found that firm size, earning per share and dividend paid have significant impact on the dividend policy. AlTroudi and Milhem (2013) found that the stock price might be affected by retained earnings per share and earnings per share. Dividends can affect the price of their underlying stock in a variety of ways. Corporate dividend policy is one of the most enduring issues in modern corporate finance.

Khan (2009) found dynamic relationship of dividends, retained earnings and other determinants with market share price. The study suggested that the overall impact of dividends on stock prices is comparatively better than that of retained earnings. Dickens et al. (2002) explained that there are differences in financial position of high dividend paying and low dividend paying companies. The study revealed that there is a positive relationship between dividends and stock prices. Further, the coefficient of dividends is higher as compared to the coefficient of retained earnings.

According to Hashemijoo et al. (2012), one of the most important decisions in corporate finance is concerned on whether the profits of firm be distributed to the shareholders as dividend or it must be reinvested in new opportunities; and if it must be distributed, what proportion of profit must be paid to shareholder and what proportion must be returned to the business. Nishat and Irfan (2004) investigated the impact of dividend policy on stock price in Pakistan. Relationship between stock price volatility and dividend policy, both of the dividend policy measures (dividend yield and payout ratio) were found to have significant impact on the stock price volatility.

Pani (2008) investigated the relationship between dividend policy and stock prices for Indian corporations. The study employed panel data analysis to examine the relationship between dividend retention
ratio and stock price behavior. The dividend retention ratio along with the size and the debt-equity ratio play a significant role in explaining variations in stock returns.

Kapoor (2009) examined the relationship between dividend policy and shareholder's value in Indian stock market. The study concluded that in the Indian scenario, dividend policy has a great effect on the shareholder wealth in the form of share price.

Hussainey et al. (2011) studied the association between dividend policy and share prices changes for the stock market in UK. The results showed that the measurements of the dividend policy, dividend yields and dividend payout, caused volatility in stock prices. Samad et al. (2007) revealed that there is a significant relationship between a stable dividend policy and firm performance in Malaysian stock market. The study suggested that there was no significant impact of dividend policy on stock market return.

Karathanassis and Philippas (1988) found that dividends, retained earnings and size to exert a significant positive influence on share prices.Uddin (2009) analyzed the effect of certain microeconomic factors on the share prices of bank, leasing and insurance companies listed on Dhaka Stock Exchange. The study found dividend, earnings and net asset value per share to bear a significant relation with share prices. Srivastava (1968) concluded that the effect of retained earnings on share prices, earnings has no significant influence on share prices. Similarly, Zahirand Khanna (1982) showed that share prices of private sector firms are significantly influenced by dividend and yield. Likewise, Krishan (2010) examined the share prices of general engineering industry and cotton textiles industry. The study found that in both the industries, book value per share and dividend are significant factors that determine share prices.

Ban et al. (2016) found that market price per share is positively related to earning per share, return on assets and return on equity. Hartone (2004) found that a significantly positive impact is made on equity prices if positive earnings information occurs after negative dividend information and vice-versa. Sharma (2011) revealed that earning per share and dividend per share have significant impact on the market price. Uwuigbe et al. (2012) concluded that financial performance and dividend payout had a significant positive relation with share prices. Dania, and Malhotra (2011) analyzed the impact of price to earnings ratio and dividend yield on the stock markets and study concluded that it has positive and significant impact on price. Dividend policy has no effect on stock price. Hence, the value of the firm in a perfect capital market will not be affected Miller et al. (1974). Mirza andAfza (2010) found that the return on assets of the company negatively affects the market price.

In the context of Nepal, Pradhan (2003) found that dividend payment is more important as opposed to retained earnings in Nepal. Manandhar (1998) found that dividend per share and return on equity have positive impact on market capitalization while earning per share, price-earnings ratio, and dividend yield have negative impact. The study also found a positive relationship between dividends and market capitalization. Dahal (2016) found that earning per share, price earnings ratio, return on assets has no significant effect in market price per share.

Sapkota (2014) found that earning per share, dividend per share, price earnings ratio, and return on assets have significant impact on market price of share. Lama (2016) found that market price per share is positively correlated to size, earning per share, dividend per share, return on assets. Nirmala et al. (2011) revealed that dividend, price-earnings ratio and leverage are significant determinants of share prices for all sectors under consideration where dividend and price earnings ratio have a positive relation to share price.

On the above backgroud, main purpose of this study is to analyze the relationship among dividends, earnings and stock price in the context of Nepalese insurance companies. More specifically, it examines the effect of earning per share, dividend per share, price to earnings ratio, return on assets and return on equity on market price per share and stock return of Nepalese insurance companies.

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

## Methodological aspects

The study is based on the secondary data which were gathered from 15 insurance companies with 105 observations for the period of 2011/12 to 2017/18. The main sources of data include annual reports of the selected insurance companies. Table 1 shows the number of insurance company selected for the study along with the study period and number of observations.

Table 1: List of insurance companies selected for the study along with study period and number of observations

| Name of the insurance companies | Study period | Observation |
| :--- | :---: | :---: |
| Everest Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| Himalayan General Insurance Limited | $2011 / 12-2017 / 18$ | 7 |
| IME General Insurance Limited | $2011 / 12-2017 / 18$ | 7 |
| LIC Nepal Limited | $2011 / 12-2017 / 18$ | 7 |
| Neco Insurance Limited | $2011 / 12-2017 / 18$ | 7 |
| Nepal Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| National Guardian Life Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| Nepal Life Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| Premier Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| Prudential Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| Sagarmatha Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| Siddhartha Insurance Limited | $2011 / 12-2017 / 18$ | 7 |
| Surya Life Insurance Company Limited | $2011 / 12-2017 / 18$ | 7 |
| Shikhar Insurance Company Limited. | $2011 / 12-2017 / 18$ | 7 |
| United Insurance Company Limited. | $2011 / 12-2017 / 18$ | 7 |

Thus, the study is based on 105 observations.
The model
The model used in this study assumes that market price per share depends on various insurance companies specific variables. The dependent variables are market price per share and dividend per share. The
selected independent variables are earning per share, dividend per share, dividend payout ratio, PE ratio, return on equity and return on assets. Therefore, the model takes the following forms:

Market price per share $=\mathrm{f}$ (earning per share, dividend per share, dividend payout ratio, price to earnings ratio, return to assets and return to equity).

Stock return $=f$ (earning per share, dividend per share, dividend payout ratio, price to earnings ratio, return to assets and return to equity).

More specifically,
$\mathrm{MPS}=\beta 0+\beta 1 E P S+\beta 2 \mathrm{DPS}+\beta 3 \mathrm{DPR}+\beta 4 \operatorname{PER}+\beta 5 \mathrm{ROA}+\beta 6 R O E+e$
$S R=\beta 0+\beta 1 E P S+\beta 2 D P S+\beta 3 D P R+\beta 4 P E R+\beta 5 R O A+\beta 6 R O E+e$
Where,
MPS= Market price per share, defined as average price of share in market.
$S R=$ Stock return, defined as the appreciation in the price plus any dividends paid, divided by its original price of stock, in percentage.

EPS= Earnings per share, defined as net income divided by total number of share outstanding, in rupees.

DPS = Dividend per share, defined as total dividend paid to total number of share outstanding, in rupees.

DPR= Dividend payout ratio, defined as the ratio of dividend per share divided by earning per share, in percentage.

PER= Price to earnings ratio, defined as the ratio of market price per share divided by earning price per share, in percentage.

ROE = Return on equity, defined as the ratio of net income divided by total equity, in percentage.
ROA = Return on assets, defined as the ratio of net income divided by total assets, in percentage.
The following section describes the independent variables and related hypotheses used in this study.
Earnings per share
Earnings per share measures the amount of net income earned per share of stock outstanding. In other words, this is the amount of money each share of stock would receive if all of the profits earned by the company were distributed to the outstanding shares at the end of the year. Gordon (1959) found positive and significant relationship between earnings per share and stock price. Sharma (2011) revealed that earning per share has significant impact on the market price of share. Muhammad (2011) concluded that the equity price is positively correlated with earnings per share. Bens et al. (2003) found that there is a statistically significant relation between Earning per share changes and changes in repurchases but the relation is modest in economic terms. Balanet al. (2017) concluded that here is positive relationship between earning per share and market price. Based on it, this study develops the following hypothesis:

H 1 : Earning per share is positively related to market price per share and stock price.

## Dividend per share

Dividend per share (DPS) is an accounting ratio used to evaluate the total number of dividends declared for each share of issued stock. The issued stock taken into account is common stock. By analyzing the dividend per share of a company the investor can very well decide whether to invest in the share since it gives a clear picture about the company's profit. Azam (2011) found that the equity price is positively correlated with dividend per share. Friend and Puckett (1964) found significant impact of dividend on stock. Dividends per share are positively related to stock prices and explain the variations in the stock market prices. The study found positive relationship between dividend per share and market stock price. Chaudhary and Mohammed (2002) revealed that the dividends generally influence the share price in a positive direction. Based on it, this study develops the following hypothesis:

H2: Dividend per share is negatively related to market price per share and stock price.

## Dividend payout ratio

The dividend payout ratio is the amount of dividends paid to stockholders relative to the amount of total net income of a company. Pani (2008) found that there is positive relationship between dividend payout ratio and market price. Srivastava (1968) revealed that there is negative relationship between dividend payout ratio and stock price. An increase in dividend payout is effective for a firm because it enhances the market price of the share and has great impact on shareholders wealth (Asquit and Mullin, 1983). Based on it, this study develops the following hypothesis:

H3: Dividend payout ratio is negatively related to market price per share and stock price.

## Price to earnings ratio

The price to earnings ratio is probably the most common measure to help investors compare how cheap or expensive a firm's shares are. It's only when investors compare a firm's share price to its annual net diluted earnings per share that they can get a sense of whether a company's shares are overvalued or underpriced. Balan et al. (2017) found that there is a positive relationship between price to earnings ratio and market price. Asquit and Mullin (1983) revealed that the higher the price to earnings, the more expensive will be the company's stock. Malhotra and Tandon (2013) revealed that price-earnings ratio of 95 select companies listed on NSE-100 have positive and significant impact significantly on market price of shares.

Based on it, this study develops the following hypothesis:
H4: PE ratio is positively related to market price per share and stock price.

## Return on assets

Return on assets (ROA) is a financial ratio that shows the percentage of profit a company earns in relation to its overall resources. It is commonly defined as net income divided by total assets. Net income is derived from the income statement of the company and is the profit after taxes. Idawati and Wahyudi (2015) found a positive relationship between return on assets and stock price. Kabajeh and Nuaimat (2012) revealed that earning per share and returns on assets have positive and significant relationship with stock price. Kabajeh (2012) found positive relationship between the return on assets with share prices. Based on it, this study develops the following hypothesis:

H5: Return on assets is negatively related to market price per share and stock price.

## Return on equity

Return on equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity. Kabajeh (2012) found a positive relationship between the return on equity and insurance public companies share prices. Onali (2009) found a negative relationship between return on equity and market price per share. Srivastava (1968) found significant and positive relationship between return on equity and market price per share and stock price. Subiyantoro and Andreani (2003) found stock price is influenced by return on equity. Astutik et al. (2014) revealed that return on equity have a positive effect on stock prices. Based on it, this study develops the following hypothesis:

H6: Return on equity is positively related to market price per share and stock price.

## Results and discussions

## Descriptive statistics

This table shows the descriptive statistics of dependent and independent variables of insurance companies for the study period of 2011/12 to 2017/18. The dependent variables are MPS (Market price per share, defined as the average price of share in the market) and SR (Stock return, defined as the appreciation in the price plus any dividends paid, divided by its original price of a stock, in percentage). The independent variables are EPS(Earning per share, defined as net income divided by a total number of share outstanding, in rupees), DPS (Dividend per share, defined as total dividend paid to a total number of share outstanding, in rupees), DPR(Dividend payout ratio, defined as the ratio of dividend per share divided by earning per share, in percentage), PER(Price to earnings ratio, defined as the ratio of market price per share divided by earning price per share, in percentage), ROA(Return on assets, defined as the ratio of net income divided by total assets, in percentage) and ROE(Return on equity, defined as the ratio of net income divided by total equity, in percentage). Table 2 presents the descriptive statistics of selected dependent and independent variables during the period 2011/12 to 2017/18.

Table 2: Descriptive statistics for selected Nepalese insurance companies

| Ratio | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: |
| MPPS | 0.0 | 8.378 | 6.411 | 1.359 |
| SR | -56.9 | 1055.220 | 71.009 | 169.108 |
| EPS | -85.67 | 166.850 | 36.337 | 31.861 |
| DPS | 0.00 | 126.320 | 18.555 | 23.721 |
| DPR | 0.00 | 537.400 | 46.570 | WS65.107 |
| PER | -52.50 | 213.000 | 29.566 | 35.974 |
| ROA | -26.50 | 124.900 | 8.413 | 13.249 |
| ROE | -315.9 | 515.500 | 31.301 | 84.880 |

Correlation analysis
This table shows the bivariate Pearson's correlation coefficients between the variables of selected 15 insurance companies for the study period of 2011/12 to 2017/18. The dependent variables are MPS (Market price per share, defined as the average price of a share in the market) and SR (Stock return, defined as the appreciation in the price plus any dividends paid, divided by its original price of a stock, in percentage). The independent variables are EPS (Earning per share, defined as net income divided by a total number of share outstanding, in rupees), DPS (Dividend per share, defined as a total dividend paid to a total number of share outstanding, in rupees), DPR (Dividend payout ratio, defined as the ratio of dividend per share divided by earning per share, in percentage), PER (Price to earnings ratio, defined as the ratio of market price per share
divided by earning price per share, in percentage), ROA(Return on assets, defined as the ratio of net income divided by total assets, in percentage) and ROE (Return on equity, defined as the ratio of net income divided by total equity, in percentage).

Having indicated the descriptive statistics, Pearson's correlation coefficients are computed and the results are presented in Table 3. More specifically, it shows the correlation coefficients of dependent and independent variables for selected Nepalese insurance companies

Table 3: Pearson's correlation coefficients matrix

| Variables | MPPS | SR | EPS | DPS | DPR | PER | ROA | ROE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MPPS | 1 |  |  |  |  |  |  |  |
| SR | $0.226^{*}$ | 1 |  |  |  |  |  |  |
| EPS | 0.133 | 0.037 | 1 |  |  |  |  |  |
| DPS | $0.266^{* *}$ | -0.034 | $0.536^{* *}$ | 1 |  |  |  |  |
| DPR | $0.247^{*}$ | -0.099 | 0.077 | $0.661^{* *}$ | 1 |  |  |  |
| PER | $0.536^{* *}$ | 0.069 | -0.028 | 0.135 | $0.405^{* *}$ | 1 |  |  |
| ROA | -0.010 | 0.045 | $0.684^{* *}$ | $0.467^{* *}$ | 0.051 | -0.105 | 1 |  |
| ROE | 0.073 | 0.045 | 0.185 | $0.211^{*}$ | -0.020 | -0.128 | $0.487^{* *}$ | 1 |

Note: The asterisk signs $\left({ }^{* *)}\right.$ and $\left({ }^{*}\right)$ indicate that the results are significant at one percent and five percent level respectively.

The result shows that a earning per share has a positive relationship with market price per share which reveals that higher the earning per share, higher would be market price per share. Similarly, a dividend per share has positive relationship with market price per share. It indicates that higher the dividend per share, higher would be market price per share. Similarly, dividend payout ratio has positive relationship with market price per share. It reveals that increase in the dividend payout ratio, increases the market price per share. Likewise, price to earnings ratio has positive relationship with market price per share. It indicates that increase in the price to earnings ratio, increase the market price per share. However, return on assets has negative relationship with market price per share, indicating that higher the return on assets lower would be the market price per share. Likewise, return on equity has positive relationship with market price per share. It indicates that increase in the return on equity, increase the market price per share.

The result shows that a earning per share has a positive relationship with stock returns which reveals that higher the earning per share, higher would be stock return. However, a dividend per share has negative relationship with stock return. It indicates that higher the dividend per share, lower would be stock return. Similarly, dividend payout ratio has negative relationship with stock return. It reveals that increase in the dividend payout ratio, decrease the stock return. Similarly, price to earnings ratio has positive relationship with stock return. It indicates that increase in the price to earnings ratio, increase the stock return. Likewise, return on assets has positive relationship with market price per share, indicating that higher the return on assets higher would be the stock return. Likewise, return on equity has positive relationship with stock return. It indicates that increase in the return on equity, increase the stock return.

## Regression analysis

Having indicated the Pearson correlation coefficients, the regression analysis has been carried out and the results are presented in Table 4. More specifically, the table shows the regression results of earning per share, dividend per share, dividend payout ratio, PE ratio, return on assets and return on equity on market price per share for Nepalese insurance companies.

The results are based on panel data of 15 insurance companies with 105 observations for the period of 2011/12 to $2017 / 18$ by using linear regression model. The model is MPS $=\beta 0+\beta 1$ EPS $+\beta 2$ DPS $+\beta 3$ DPR $+\beta 4$ PER $+\beta 5$ ROE $+\beta 6$ ROA + e, where dependent variables are MPS (Market price per share, defined as average price of share in market) and SR (Stock return, defined as the appreciation in the price plus any dividends paid, divided by its original price of stock, in percentage). The independent variables are EPS (Earning per share, defined as net income divided by total number of share outstanding, in rupees), DPS (Dividend per share, defined as total dividend paid to total number of share outstanding, in rupees), DPR (Dividend payout ratio, defined as the ratio of dividend per share divided by earning per share, in percentage), PER (Price to earnings ratio, defined as the ratio of market price per share divided by earning price per share, in percentage), ROA(Return on assets, defined as the ratio of net income divided by total assets, in percentage) and ROE(Return on equity, defined as the ratio of net income divided by total equity, in percentage).

Table 4: Estimated regression results earning per share, dividend per share, dividend payout ratio, PE ratio, return on assets and return on equity with market price per share

|  |  | Regression Coefficients of |  |  |  |  |  | $\begin{aligned} & \text { Adj.R- } \\ & \text { bar }^{2} \end{aligned}$ | SEE | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Models | Intercept | EPS | DPS | DPR | PER | ROA | ROE |  |  |  |
| 1 | $\begin{aligned} & 6.204 \\ & (30.887)^{* *} \end{aligned}$ | $\begin{aligned} & \hline 0.006 \\ & (1.367) \end{aligned}$ |  |  |  |  |  | 0.008 | 1.353 | 1.869 |
| 2 | $\begin{aligned} & 6.128 \\ & (37.507)^{* *} \end{aligned}$ |  | $\begin{aligned} & 0.015 \\ & (2.796)^{* *} \end{aligned}$ |  |  |  |  | 0.062 | 1.316 | 7.818 |
| 3 | $\begin{aligned} & 6.170 \\ & (38.806)^{* *} \end{aligned}$ |  |  | $\begin{aligned} & 0.005 \\ & (2.796)^{* *} \end{aligned}$ |  |  |  | 0.052 | 1.323 | 6.701 |
| 4 | $\begin{aligned} & 5.812 \\ & (39.836)^{* *} \end{aligned}$ |  |  |  | $\begin{aligned} & 0.020 \\ & (6.443)^{* *} \end{aligned}$ |  |  | 0.280 | 1.152 | 41.506 |
| 5 | $\begin{aligned} & 6.419 \\ & (40.615)^{* *} \end{aligned}$ |  |  |  |  | $\begin{aligned} & -0.001 \\ & (0.103) \end{aligned}$ |  | 0.010 | 1.365 | 0.011 |
| 6 | $\begin{aligned} & 6.374 \\ & (44.975)^{* *} \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & 0.001 \\ & (0.744) \end{aligned}$ | 0.004 | 1.362 | 0.553 |
| 7 | $\begin{aligned} & 6.193 \\ & (30.550)^{* *} \end{aligned}$ | $\begin{aligned} & 0.001 \\ & (0.126) \end{aligned}$ |  |  |  |  | $\begin{aligned} & 0.001 \\ & (0.503) \end{aligned}$ | 0.001 | 1.358 | 1.054 |
| 8 | $\begin{aligned} & 6.137 \\ & (30.718)^{* *} \end{aligned}$ | $\begin{aligned} & 0.001 \\ & (0.126) \end{aligned}$ | $\begin{aligned} & 0.015 \\ & (2.349)^{*} \end{aligned}$ |  |  |  | $\begin{aligned} & 0.000 \\ & (0.191) \end{aligned}$ | 0.043 | 1.329 | 2.573 |
| 9 | $\begin{aligned} & 6.028 \\ & (27.122)^{* *} \end{aligned}$ | $\begin{aligned} & 0.002 \\ & (0.367) \end{aligned}$ | $\begin{aligned} & 0.007 \\ & (0.726) \end{aligned}$ | $\begin{aligned} & 0.003 \\ & (1.114) \end{aligned}$ |  |  | $\begin{aligned} & 0.001 \\ & (0.410) \end{aligned}$ | 0.046 | 1.327 | 2.245 |
| 10 | $\begin{aligned} & 5.598 \\ & (28.005)^{* *} \end{aligned}$ | $\begin{aligned} & 0.000 \\ & (0.084) \end{aligned}$ | $\begin{aligned} & 0.017 \\ & (1.973)^{*} \end{aligned}$ | $\begin{aligned} & 0.004 \\ & (1.335) \end{aligned}$ | $\begin{aligned} & 0.022 \\ & (6.367)^{* *} \end{aligned}$ |  | $\begin{aligned} & 0.001 \\ & (0.977) \end{aligned}$ | 0.316 | 1.124 | 10.614 |
| 11 | $\begin{aligned} & 5.539 \\ & (28.032) * * \end{aligned}$ | $\begin{aligned} & 0.006 \\ & (1.167) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.019 \\ & (2.301)^{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.004 \\ & (1.518) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.021 \\ & (6.370)^{* *} \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.030 \\ & (2.257)^{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.003 \\ & (1.940) \\ & \hline \end{aligned}$ | 0.343 | 1.102 | 10.060 |

Notes:
i. Figures in parentheses are $t$ - values.
ii. The asterisk signs ( ${ }^{* *)}$ and $\left({ }^{*}\right)$ indicate that the results are significant at 1 percent and 5 percent level respectively.
iii. Dependent variable is market price per share.

The result shows that the beta coefficients for earning per share are positive with market price per share. It indicates earning per share has positive impact on the market price per share. This finding is consistent with the findings of Muhammad (2011). The result also shows that the beta coefficients for dividend per share are positive with market price per share. It indicates dividend per share has a positive impact on market price per share. This finding is consistent with the findings of Muhammad (2011). Similarly, the beta
coefficients for dividend payout ratio are positive with market price per share which indicates dividend payout ratio has positive impact on market price per share. This finding is consistent with the findings of Pani (2008).Likewise, the beta coefficients for price to earnings ratio are positive with market price per share which indicates that price to earnings ratio has positive impact on market price per share. This finding is consistent with the findings of Asquit and Mullin (1983). However, the beta coefficients for return on assets are negative with market price per share. It indicates return on assets has negative impact on market price per share. The results also show that the beta coefficients for return on equity are positive with market price per share. It indicates return on equity has a positive impact on market price per share. This finding is consistent with the findings of Srivastava(1968).The result also shows that the beta coefficients for dividend per share, dividend payout ratio and price to earnings ratio is statistically significant at one percent level of significance.

Table 5 shows the regression results of earning per share, dividend per share, dividend payout ratio, PE ratio, return on assets and return on equity on stock return of Nepalese insurance companies.

The results are based on panel data of 15 insurance companies with 105 observations for the period of 2011/12 to $2017 / 18$ by using linear regression model. The model is stock return $=\beta 0+\beta 1$ EPS $+\beta 2$ DPS $+\beta 3$ DPR $+\beta 4$ $P E R+\beta 5$ ROE $+\beta 6$ ROA $+e$, where dependent variables are MPS (Market price per share, defined as average price of share in market) and SR (Stock return, defined as the appreciation in the price plus any dividends paid, divided by its original price of stock, in percentage). The independent variables are EPS (Earning per share, defined as net income divided by total number of share outstanding, in rupees), DPS (Dividend per share, defined as total dividend paid to total number of share outstanding, in rupees), DPR (Dividend payout ratio, defined as the ratio of dividend per share divided by earning per share, in percentage), PER (Price to earnings ratio, defined as the ratio of market price per share divided by earning price per share, in percentage), ROA(Return on assets, defined as the ratio of net income divided by total assets, in percentage) and ROE(Return on equity, defined as the ratio of net income divided by total equity, in percentage).

Table 5: Estimated regression results earning per share, dividend per share, dividend payout ratio, PE ratio, return on assets and return on equity with stock return.

| Models | Intercept | Regression Coefficients of |  |  |  |  |  | Adj. R-bar ${ }^{2}$ | SEE | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | EPS | DPS | DPR | PER | ROA | ROE |  |  |  |
| 1 | $\begin{aligned} & \hline 63.818 \\ & (2.532)^{*} \end{aligned}$ | $\begin{aligned} & \hline 0.198 \\ & (0.379) \end{aligned}$ |  |  |  |  |  | 0.010 | 0.672 | 0.143 |
| 2 | $\begin{aligned} & 75.466 \\ & (3.580)^{* *} \end{aligned}$ |  | $\begin{gathered} -0.240 \\ (0.342) \end{gathered}$ |  |  |  |  | 0.014 | 0.673 | 0.117 |
| 3 | $\begin{aligned} & 82.931 \\ & (4.081)^{* *} \end{aligned}$ |  |  | $\begin{aligned} & -0.256 \\ & (1.005) \end{aligned}$ |  |  |  | 0.022 | 0.676 | 1.010 |
| 4 | $\begin{aligned} & 61.404 \\ & (2.862)^{* *} \end{aligned}$ |  |  |  | $\begin{aligned} & 0.325 \\ & (0.703) \end{aligned}$ |  |  | 0.098 | 0.635 | 0.494 |
| 5 | $\begin{aligned} & 66.192 \\ & (3.368)^{* *} \end{aligned}$ |  |  |  |  | $\begin{aligned} & 0.573 \\ & (0.456) \end{aligned}$ |  | 0.269 | 0.572 | 0.208 |
| 6 | $\begin{aligned} & 68.227 \\ & (3.862)^{* *} \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & 0.089 \\ & (0.453) \end{aligned}$ | 0.148 | 0.617 | 0.205 |
| 7 | $\begin{aligned} & 62.775 \\ & (2.467)^{*} \end{aligned}$ | $\begin{aligned} & 0.160 \\ & (0.299) \end{aligned}$ |  |  |  |  | $\begin{aligned} & 0.078 \\ & (0.388) \end{aligned}$ | 0.139 | 0. 620 | 0.146 |
| 8 | $\begin{aligned} & 64.916 \\ & (2.526)^{*} \end{aligned}$ | $\begin{aligned} & 0.386 \\ & (0.617) \end{aligned}$ | $\begin{aligned} & -0.592 \\ & (0.700) \end{aligned}$ |  |  |  | $\begin{aligned} & 0.097 \\ & (0.478) \end{aligned}$ | 0.131 | 0.623 | 0.261 |
| 9 | $\begin{aligned} & 74.219 \\ & (2.587)^{* *} \end{aligned}$ | $\begin{aligned} & 0.166 \\ & (0.239) \end{aligned}$ | $\begin{aligned} & -0.112 \\ & (0.088) \end{aligned}$ | $\begin{aligned} & -0.288 \\ & (0.736) \end{aligned}$ |  |  | $\begin{aligned} & 0.066 \\ & 0.320 \end{aligned}$ | 0.269 | 0.572 | 0.330 |
| 10 | $\begin{aligned} & 60.627 \\ & (1.997)^{*} \end{aligned}$ | $\begin{aligned} & 0.091 \\ & (0.131) \end{aligned}$ | $\begin{aligned} & -0.416 \\ & (0.322) \end{aligned}$ | $\begin{aligned} & -0.512 \\ & (1.207) \end{aligned}$ | $\begin{aligned} & 0.692 \\ & (1.325) \end{aligned}$ |  | $\begin{aligned} & 0.088 \\ & (0.423) \end{aligned}$ | 0.040 | 0.726 | 0.617 |
| 11 | $\begin{aligned} & 61.273 \\ & (1.991)^{*} \end{aligned}$ | $\begin{aligned} & 0.018 \\ & (0.022) \end{aligned}$ | $\begin{aligned} & -0.388 \\ & (0.296) \end{aligned}$ | $\begin{aligned} & -0.507 \\ & (1.187) \end{aligned}$ | $\begin{aligned} & 0.696 \\ & (1.325) \end{aligned}$ | $\begin{aligned} & 0.325 \\ & (0.159) \end{aligned}$ | $\begin{aligned} & 0.070 \\ & (0.297) \end{aligned}$ | 0.031 | 0.898 | 0.514 |

Notes:
i. Figures in parentheses are $t$ - values.
ii. The asterisk signs $\left({ }^{* *}\right)$ and $(*)$ indicate that the results are significant at 1 percent and 5 percent level respectively.
iii. Dependent variable is stock return.

The result shows that the beta coefficients for earning per share are positive with stock return. It indicates earning per share has a positive impact on stock return. This finding is consistent with the findings of Gordon (1959). Similarly, the beta coefficients for price to earnings ratio are positive with stock return which indicates earnings ratio has a positive impact on stock return. This finding is consistent with the findings of Asquit and Mullin (1983). Likewise, the beta coefficients for return on assets are positive with stock return. It indicates the return on assets has a positive impact on stock return. This finding is consistent with the findings of Kabajeh (2012). The results also show that the beta coefficients for return on equity are positive with stock return which indicates the return on equity has a positive impact on stock return. This finding is consistent with the findings of Srivastava (1968). However, the beta coefficients for dividend per share are negative with stock return. It indicates dividend per share has a negative impact on stock return. The result also shows that the beta coefficients for dividend payout ratio are negative with stock return which indicates dividend payout ratio has negative impact on stock return. This finding is consistent with the findings ofSrivastava (1968).

## Conclusion

Insurance companies are one of the major players of the economy of Nepal. The financial performance of insurance companies is the most essential factor that can gives visibility to the investor which play significant role to gain reliable and consistent returns by selecting winning portfolio. This study attempts to examine the dividends, earnings and stock price of Nepalese insurance companies. The study is based on secondary data of 15 insurance companies with 105 observations for the period 2012/13-2017/18.

The study shows that earning per share, dividend per share, dividend payout ratio, price to earnings ratio and return on equity have positive impact on the market price per share whereas returns on assets have negative impact on the market price per share. Similarly, dividends per share and dividend payout ratio have negative impact on stock return whereas earning per share, price to earnings ratio, return on assets and return on equity have a positive impact on stock return. The study also concludes that dividend per share followed by dividend payout ratio and price to earnings ratio are the most significant factor that determines the market price per share of Nepalese insurance companies.

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The authors declare no conflict of interest.

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## Author contributions

Conceptualization: Lamichhane; Rai. Methodology: Lamichhane and Rai. Software: Lamichhane. Validation: Rai. Formal Analysis: Lamichhane. Investigation: Rai. Data Curation: Lamichhane. Writing - Original Draft: Lamichhane. Writing - Review \& Editing: Lamichhane and Rai. Visualization: Rai. Supervision: Lamichhane. Ethical statement

This research did not require ethical approval as it does not involve any human or animal experiment.

## Data availability statement

Data have been used only for this paper.
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