Relationship between Fundamental Indicator and Stock Price of Nepalese Life Insurance Companies

Narayan Deshar

PhD Scholar, Singhania University

ABSTRACT

The purpose of this research is to determine the factors that influence the stock market price of Nepalese Life Insurance Companies for the period 2014/15 to 2018/19. It is based on pooled cross-sectional data of five life insurance companies for 5 years whose stocks are listed in Nepal Stock Exchange. It was discovered that there is a positive relationship between P/E ratio, ROE, and BVPS utilizing descriptive statistics, correlation and regression analysis whereas DY has a negative relationship with the price of stocks.

Key Words: *price-earnings ratio, return on equity, book value per share, dividend yield and market price per share.*

Introduction

A capital market is a place where people do trade in financial assets at prices that are determined by the demand and supply forces. Stock market is one kind of financial market where traders buy and sell shares**.** Stock market is considered as a parameter of a country's economic strength and development. The stock market is meant to represent the economy's performance and rate of economic growth. It serves as a relationship between interested investors and those who require funding for business productive activities. It channelizes the savings of the public into equity investments to support the booming economy. Stock price movements have a profound psychological impact on the individual investor and businesses.

Generally, investors invest in such type of companies which performance is sound and fundamentally strong in order to gain higher handsome return. The primary objective of investor's investment is to make profit. Some of the investors do invest for a short period as a trading where some of them are invest for a long term as investment. But the ultimate goal of short term and long-term investor is making profit. Different types of investors are influenced by various circumstances. Technical elements are often integrated and prioritized by short-term investors and traders. Long-term investors place a premium on fundamentals while also acknowledging the importance of technical considerations. With the common notion that technical considerations and market mood are often overcome in the short term, but fundamental reasons will establish the stock price in the long run, investors who believe strongly in fundamental factors might reconnect with

technical forces. Fundamental indicator has close relation with stock price. Before investment, investors do fundamental analysis and make research on fundamental indicator.

Literature Review

The experimental relationship between the prices of equity shares and explanatory variables such as book value per share, dividend per share, earnings per share, price to earnings ratio, dividend yield, dividend payment, sale size, and net worth. According to the research, earnings per share, dividends per share, and book value per share all have a significant impact on a share's market price. Furthermore, the study's findings revealed that dividend per share and earnings per share are the largest drivers of stock price, meaning that the current study's findings advocate a liberal dividend policy and encourage corporations to pay frequent dividends. The stock market price would benefit from this technique. Because book value per share represents the owner's funds, a higher book value per share might be viewed as a sign of a company's healthy financial position by an investor. All of this shows that researching financial aspects is beneficial to Indian investors because these elements have significant explanatory power and can thus be used to make credible future stock price forecasts. As a result, before investing, investors should analyze the accounting elements of the company (Nirmala, Sanju, & Ramachandran, 2011).

Kabajeh et al. (2012) studies the relationship between the ROA, ROE, and ROI ratios and the share prices of Jordanian insurance companies, both together and separately. The findings showed a favorable relationship between the ROA, ROE, and ROI ratios and the share prices of Jordanian insurance public companies based on empirical evidence. However, there was no correlation between the ROE ratio and the market share prices of Jordanian insurance public companies.

According to Adekunle et al. (2015) the factors that affect the share price behavior of selected firms in the Nigerian insurance industry are investigated in this report. This research looks at how company-specific factors (earnings per share and return on assets) and macroeconomic factors (inflation rate and GDP) affect share prices in the Nigerian insurance industry. In the Nigerian insurance industry, it was discovered that earnings per share and inflation rate have a major impact on share price conduct. Return on assets and gross domestic product; on the other hand, were not important in forecasting industry share prices. Investors in the insurance industry are advised to follow industry financial ratios, especially the profitability measure of earning per share.

As per Al Qaisi et al. (2016), the impact of some factors on market stock price, such as Return on Asset (ROA), Return on Equity (ROE), Debt Ratio, Company Age, and Company Size. The study employs twenty insurance companies listed on the Amman stock exchange to achieve its goal. Simple and multiple liner regression were used to analyze the data, and the results revealed that there is a relationship between (ROA, Debt Ratio, Company Age, and Company Size) and market stock price in insurance companies listed on the Amman stock exchange. Furthermore, the findings revealed that in these insurance firms, there is no correlation between ROE and market stock price.

Kumar (2017) understands how earnings per share and price earnings ratio affect the market price of a company's stock. The study's findings show that earnings per share is a very good predictor of market price, while price earnings ratio has a major effect on the estimation of market price of select companies in the auto sector as a whole.

In the context of Nepal, a study by Bhattarai (2018) examined the impact of firm-specific and macroeconomic variables on the share prices of Nepalese commercial banks and insurance businesses. stated that as independent variables, return on assets (ROA), earnings per share (EPS), dividend per share (DPS), dividend payout ratio (DPR), prices earnings ratio (P/E Ratio), and size were used, with money supply (MS), exchange rate (ER), inflation rate (IR), and GDP growth rate (GDPR) as dependent variables. According to the study, the primary determinants influencing the share prices of Nepalese banks and insurance firms include company specific: ROE, ROA, EPS, DPS, P/E Ratio, size, and macroeconomic: MS, GDPR, ER, and IR.

The factors influencing the share price of Nepalese non-life insurance companies are investigated in this report. The results show that firm size is linked to the market price of a share and the price earnings ratio in a positive way. It shows that as a company grows in size, its stock price and price earnings ratio rise. Inflation, on the other hand, appears to be negatively relationship to market share price and price earnings ratio, according to the report. According to the study, dividend per share and return on assets are inversely related to market price and price earnings ratio. Earnings per share have an inverse relationship with a stock's selling price and the price earnings ratio (Gautam &Bista, 2019). According to the analysis, the increase in return on assets and earnings per share does not explain the difference in stock prices in Nepalese non-life insurance enterprises.

On the issue of impact of dividend policy on the market value of common stocks of insurance companies that are listed on the Kuwait Stock Exchange. The research of AlAli et al. (2020) is motivated by an unexplained dilemma in the financial management literature about dividend policy. As independent variables in the analysis, dividend yield, dividend payout ratio, earnings per share, book value per share, and stock price to book value ratio are employed. According to the regression model's findings, dividend yield and dividend payout ratio had a statistically significant negative impact on share prices, whereas earnings per share, book value per share, and market price to book value ratio had a statistically significant positive impact on share prices. Miller and Modigliani's (1961) dividend irrelevance hypothesis is supported by the findings of this analysis.

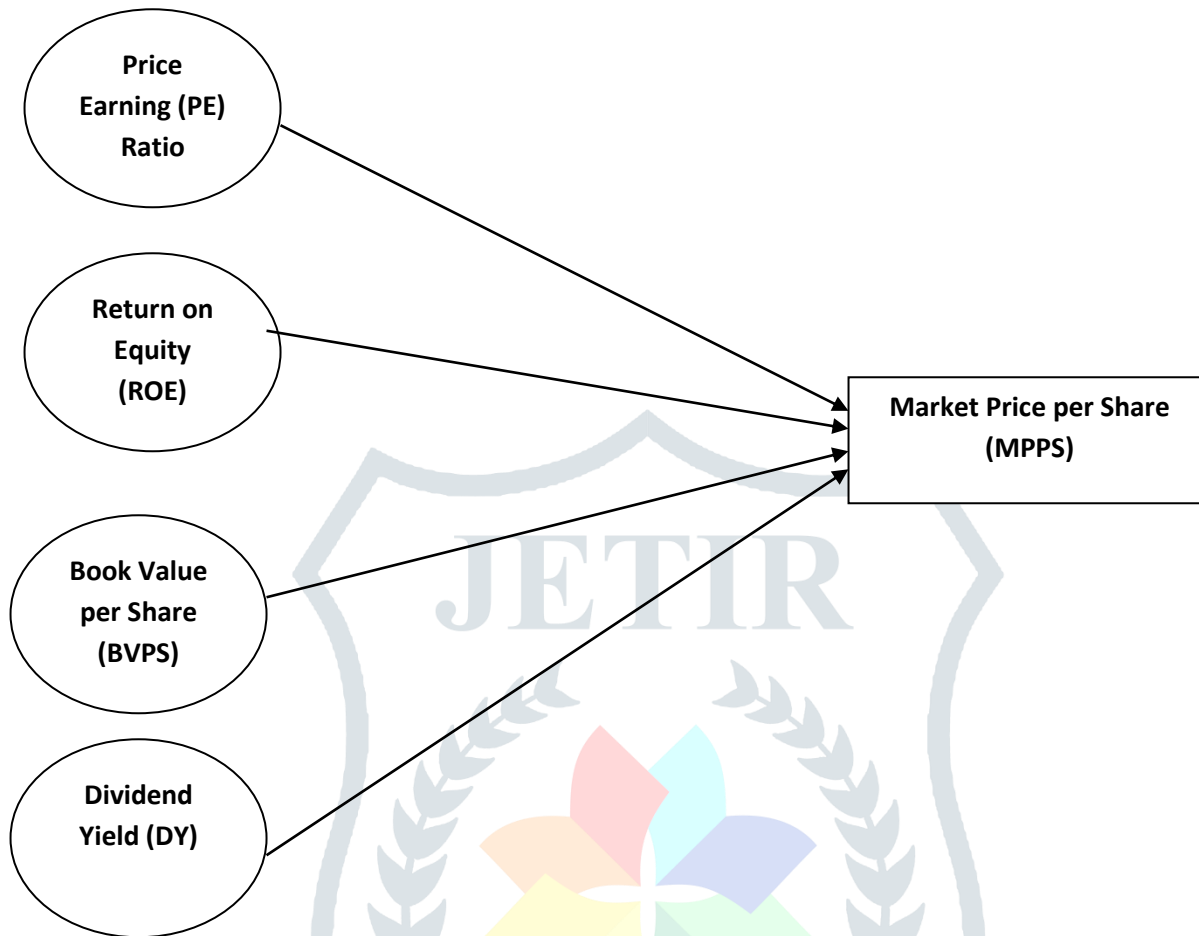**Independent Variables**   **Dependent Variable**

Figure1. *Conceptual Framework*

Research Methods

The study is conducted using a quantitative technique followed by descriptive research, to perform a brief and accurate study on selected variables and pooled cross-sectional data obtained from NEPSE listed life insurance companies at one point in time. To address the relationship between variables, also known as interrelationship, this study used a causal comparative analysis design, which examines the relationship between the data acquired to gain a better understanding of the situation.

The research is focused on the review of secondary data. To estimate the models used in this analysis, the required data are gathered from Life Insurance companies financial statements available in the NEPSE, SEBON, NRB and annual report of the respective companies data bases from 2014/15 to 2018/19. Based on convenience sampling, five life insurance companies from the listed on the Nepal Stock Exchange were chosen as the sample for this analysis.

Table 1 shows the specifics of the selected life insurance companies and data periods used to fulfill the objective of this report. This study's model is based on literature on the determinants of stock price in Nepal. The model presented below is firmly supposed to capture require for subject matter under consideration.

Table 1: *Number of Observations of Life Insurance Companies*

S. No.	Fiscal Year	Life Insurance Companies	No. of Observations
1	2014/15 – 2018/19	National Life Insurance Company Limited	5
2	2014/15 – 2018/19	Nepal Life Insurance Company Limited	5
3	2014/15 – 2018/19	Life Insurance Corporation Nepal Limited	5
4	2014/15 – 2018/19	Prime Life Insurance Company Limited	5
5	2014/15 – 2018/19	Surya Life Insurance Company Limited	5
Total Observations			**25**

MPPS= a + b1 BVPS + b2 P/E ratio + b3ROE+ b4DY +ei

To test the hypothesis in Nepalese life insurance firms, the aforementioned model is estimated using data from life insurance companies, which predicts the explanatory power of specific variables on stock price determinants. The variables used in this study are: the MPPS is the market price per share, a is the industry specific Intercepts, BVPS is the book value per share, P/E is the price earnings ratio, ROE is the return on equity, DY is the dividend yield.

Data Analysis and Discussion

This section discusses the impact of stock price determinants such as P/E, ROE, BVPS, and DY on the market share price of Nepalese life insurance firms. Table 2 displays descriptive statistics for five NEPSE-listed life insurance companies from 2014/15 to 2018/19. Descriptive statistics shows that, the mean of the PE Ratio is 71.514 with standard deviation of 45.9903 and ranges from 16.1 to 212.7.

Table 2: *Descriptive Statistics*

	PE Ratio (times)	ROE (%)	Book Value Per Share (Rs)	Dividend Yield (%)	Market Price Per Share (Rs)
N	25	25	25	25	25
Mean	71.514	19.468	154.500	1.772	1689.000
Median	51.536	18.380	138.242	1.080	1600.000
Std. Deviation	45.9903	12.3835	39.1195	1.4378	1058.4180
Minimum	16.1	3.5	118.3	.5	439.0
Maximum	212.7	69.7	251.5	5.7	4006.0

For the five years period from 2014/15 to 2018/19, this table provides the mean, median, standard deviation, minimum, and maximum values of variables related to five life insurance firms. The independent variables are P/E ratio (P/E in times) is the ratio of a company's share price to company's earnings per share, Return on Equity (ROE in %) defined as company net income divided by shareholders equity, Book Value per Share (BVPS) defined as shareholder equity divided by number of share outstanding and DY (DY in %) defined as dividend per share divided by market price per share. The dependent variable is Market Price per Share (MPPS) defined as the total market value of the business, divided by the total number of shares outstanding.

The five year average PE ratio of Life Insurance Company Nepal is found to be the highest at 104.23 which is above the average of all the sample life insurance companies and the lowest five year average PE ratio is 51.10 of Prime Life Insurance Company which is below average of the samples collected. The major promoter share holding of Life Insurance Company Nepal belongs to foreigner (LIC India). The higher PE ratio of Life Insurance Company Nepal could be due to the confidence of investors which might have been generated from LIC India even though the dividend distributed by Life Insurance Company Nepal is on average lower than that of Nepal Life Insurance Company. Even though the book value of Prime Life Insurance Company is highest among the sample collected, the lowest PE ratio of Prime Life Insurance Company implies that investors are less concerned with BVPS when it comes to insurance sector.

The five year average ROE of Life Insurance Company Nepal is found to be the highest at 27.61which is above the average of all the sample life insurance companies and the lowest five year average ROE is 13.09 of

Prime Life Insurance Company which is below average of the samples collected. This shows that earning capacity of Life Insurance Company Nepal on average is better than the sample averages. This depicts the highest PE ratio of Life Insurance Company Nepal and the investor's preference towards Life Insurance Company Nepal stock.

The five year average BVPS of Prime Life Insurance Company is found to be the highest at 197.13 which is above the average of all the sample life insurance companies and the lowest five year average BVPS is 13.09 of National Life Insurance Company which is below average of the samples collected. The five year average BVPS of Prime Life Insurance Company is highest however the BVPS of Prime Life Insurance Company is on decreasing trend year by year. The number of outstanding shares of National Life Insurance Company is higher and could be the reason of low BVPS as compared to samples.

The five year average DY of Nepal Life Insurance Company is found to be the highest at 3.03 which is above the average of all the sample life insurance companies and the lowest five year average DY is 1.34 of National Life Insurance Company which is below average of the samples collected. Among the sample, Nepal Life Insurance Company has best financial performance with best premium collection which might lead higher dividend yield. On an average, the dividend distribution of National Life Insurance Company is better than Prime Life Insurance Company and Surya Life Insurance Company. However the market price of National Life Insurance Company is higher than the five year MPPS average of the samples and could be the reason of low dividend yield.

The five year average MPPS of Life Insurance Company Nepal is found to be the highest at 2350.40 which is above the average of all the sample life insurance companies and the lowest five year average MPPS is 755 of Surya Life Insurance Company which is below average of the samples collected. The major promoter share holding of LIC Nepal belongs to foreigner (LIC India) and might be the reason to gain the confidence of investors and create good demand of LICN share. Due to that, MPPS of LICN is higher as compare to samples. The Surya Life Insurance Company is junior life insurance company as compare to samples insurance company and premium collection is also low. Due to that, investor's confidence is low and demand for that stock is low. This could be the one of the reason of MPPS low as compare to samples.

The Correlation Analysis

The relationship between several stock market price components is seen in table 3. The main goal of this table is to demonstrate the relationship between several indicators such as the P/E ratio (price earnings ratio), ROE (return on equity), as BVPS (book value per share), DY (dividend yield), and stock market price (MPPS).

Table 3: *Correlation Analysis*

	PE Ratio (times)	ROE (%)	Book Value Per Share (Rs)	Dividend Yield (%)	Market Price Per Share (Rs)
PE Ratio (times)	1				
ROE (%)	-.251	1			
Book Value Per Share (Rs)	-.264	.055	1		
Dividend Yield (%)	-.523[**]	.204	.001	1	
Market Price Per Share (Rs)	.503[*]	.370	.118	-.458[*]	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The table depicts the relationship between stock price and factors that influence stock price. The P/E ratio is calculated by comparing the share price to the firm's annual net income per share. The ratio of net income divided by shareholders equity is known as the return on equity (ROE). The equity accessible to common shareholders is divided by the number of outstanding shares to calculate book value. DY is calculated as proportion of dividend per share divided by market value per share.

As seen from the above table PE ratio and ROE is found to be positively correlated with MPPS with correlation value 0.503 and 0.370 respectively. The dividend yield of life insurance companies found to be negatively correlated with MPPS with correlation value of -0.458. This shows that PE ratio and DY are among the major variables followed by Nepalese investor and these variables have major impact on MPPS of life insurance companies. The BVPS is positively correlated with MPPS however the correlation is at 0 .118. This shows that BVPS is relatively less followed than PE ratio, DY and ROE. This also shows that investors are more interested in earning capacity of life insurance companies than fair and accurate picture of a company's worth. This shows that highly priced shares of life insurance companies in the market are more preferred than low price life insurance companies and the investors in Nepalese capital markets giving less importance to fair and accurate picture of a company's worth.

The correlation between PE ratio and dividend yield of life insurance companies is negative, as higher PE ratio implies higher market price which significantly reduces dividend yield.

The Regression Analysis

Multivariate regressions of company specific characteristics in terms of stock price per share trading over a specified period of time have been used to determine the price of life insurance companies.

In table 4, the effects of explanatory variables on stock price are shown. The effect of the regression model on stock price is shown in this table.

This table shows the data from the sample of life insurance companies, as well as the outcome of the regression equation of explanatory variables on MPPS. The data comes from NEPSE and the annual reports of the companies, and the sample includes five life insurance companies that were listed in NEPSE between 2014/15 to 2018/19.

The t-value of each regression coefficient is provided so that the significance of the coefficients of the market stock price variables chosen in the study may be determined. It depicts the relationship between the share price of life insurance companies in Nepal and numerous fundamental factors that influence the share price. P/E ratio is measured as the share relative to the annual net income earned by the firm per share. ROE is defined as a proportion of net income by shareholders equity, BVPS is defined as a company common equity value divided by its total number of shares outstanding and DY is measured as dividend per share divided by market price per share.

Table 4: *Regression Model Summary*

Model		Understandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std.Error	Beta		
1	(Constants)	-769.281	865.427		-8.89	.385
	PE Ratio	12.828	3.582	.557	3.330	.003
	ROE	47.396	11.866	.555	3.994	.001
	BVPS	6.367	3.808	.235	1.672	.110
	DY	-206.251	117.699	-.280	-1.752	.095

a. Dependent Variable: MPPS

An individual PE Ratio test on MPPS found that a unit increase in the PE Ratio results in a 0.557 times increase in the share price.
An individual ROE test on MPPS found that a unit increase in ROE results to a 0.555 times increase in share price.
An individual test of BVPS on MPPS found that a unit increase in BVPS results in a 0.235 times increase in share price.
An individual test of DY on MPPS found that a unit increase in the DY results a 0.280 times decrease in the share price.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.801[a]	.642	.570	694.1122

a. Predicators: (Constant), DY, BVPS, ROE, PE Ratio

Above model summary table shows the R-Square value of .642 which indicate that 64% of variation in Market Share Price can be accounted by variation in DY, ROE, BVPS and PE Ratio.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17250132.949	4	4312533.237	8.951	.000[b]
	Residual	9635835.051	20	481791.753		
	Total	26885968.000	24			

a. Dependent Variable: MPPS

b. Predictors: (Constant), DY, BVPS, ROE, PE Ratio

Above ANOVA table shows that the model proposed is Significant.

Conclusion

All over the world, there has been a lot of research and studies done on the factors that influence stock price. This paper investigates the impact of basic variables on the share price of chosen Nepalese life insurance companies, as well as the extent to which the selected factors influence the share price over time. The study's research question was to determine the relationship between P/E Ratio, ROE, BVPS, and DY with stock market price. The researcher has identified major explanatory variables based on previous local and international investigations. A review of the relevant theoretical and empirical literature was conducted as part of the inquiry. It was discovered that there is a positive relationship between P/E ratio, ROE, and BVPS utilizing descriptive statistics, correlation and regression analysis whereas DY has a negative relationship with the price of stocks.

The PE ratio and DY are among the major variables followed by Nepalese investor and these variables have major impact on MPPS of life insurance companies. The BVPS is positively correlated with MPPS. This shows that BVPS is relatively less followed than PE ratio, DY and ROE. This also shows that investors are more interested in earning capacity of life insurance companies than fair and accurate picture of a company's worth. The dividend yield of life insurance companies is found to be negatively correlated with MPPS. This shows that highly priced shares of life insurance companies in the market are more preferred than low price life insurance companies shares and the investors in Nepalese capital markets giving less importance to fair and accurate picture of a company's worth.

Finally, the findings of this study revealed new evidence in Nepalese perspective, which market participants regard to be useful. As a result, the findings of this study appear to be very valuable for share investors, mutual fund managers, Portfolio fund manager, Insurance agent, students, researcher and the economist, as they can consider these major aspects when assessing stock returns and anticipating market share prices.

Managerial Implications and limitations

Before making any investment decision in stock of Nepalese life insurance companies, investors should consider the P/E ratio, DY and ROE respectively according to the findings of this report. Just five life insurance firms are included in the report. This form of research would have been easier and better if it had included large samples. The research does not include all Nepalese life insurance companies. This kind of analysis will have to wait for future research.

References

Adekunle, S. A., Agbadudu, J. E., &Ammeh, K. P. (2015). Factors influencing share prices in the Nigerian insurance industry. *Finance and Banking Review*, *9*(1), 194-213.

Al Qaisi, F., Tahtamouni, A., & Al-Qudah, M. (2016). Factors affecting the market stock price: The case of the insurance companies listed in Amman Stock Exchange. *International Journal of Business and Social Science*, *7*(10), 81-90.

AlAli, M. S., Al-Yatama, S. K., AlShamali, N. M., &AlAwadhi, K. M. (2020). *The impact of dividend policy on Kuwaiti insurance companies shares prices.*

Bhattarai, B. P. (2018). The firm specific and macroeconomic variables effects on share prices of Nepalese commercial banks and insurance companies. *Review of Integrative Business and Economics Research*, *7*, 1-11.

Gautam, A., &Bista, N. B. (2019). Factors affecting share price of Nepalese non-life insurance companies. *Nepalese Journal of Insurance and Social Security*, *2*(2), 22-31.

Kabajeh, M. A. M., Al Nu'aimat, S. M. A., &Dahmash, F. N. (2012). The relationship between the ROA, ROE and ROI ratios with Jordanian insurance public companies market share prices. *International Journal of Humanities and Social Science*, *2*(11), 115-120.

Kumar, P. (2017). Impact of earning per share and price earnings ratio on market price of share: a study on auto sector in India. *International Journal of Research-Granthaalayah*, *5*(2), 113-118.

Nirmala, P. S., Sanju, P. S., & Ramachandran, M. (2011). Determinants of share prices in India. *Journal of Emerging Trends in Economics and Management Sciences*, *2*(2), 124-130.