A STUDY ON IMPACT OF EARNING POTENTIAL RATIOS OF LISTED GENERAL INSURANCE INDIAN COMPANIES ON ITS STOCK MARKET PRICE

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ABSTRACT

This is very much important to identify the factors that affect market share prices as capital market represent the development of the economy of a country. This study investigated whether profitability measures Earning per share (EPS), Book value per share (BVPS), Return on Net worth (RONW), Net Earnings Ratio(NER) and Price Earnings Ratio (PE)together can explain variations in the market prices per share of publicly traded listed general insurance companies (ICICI Lombard & New India assurance company ltd.) in India during the period 2017-2020. Using correlation & regressionanalysis, this study found that EPS ,BVPS& PE ratio has a positive correlation with share market price, while NER and RONW does not have significant correlation or negative correlation on the share market price &This indicates that the management of insurance business uses investor's money effectively.

Findings revealed that share price movement of insurance industry in India doesn't reflect all pertinent information of the company and the market is not efficient enough. The study suggests the investors to consider other variables such as economic, political and global situation while taking investment decisions as well as profitability measures EPS, BVPS& PE ratio &also suggests management and insurance regulator to incorporate the findings of the study and gives emphasis on appropriate accounting reporting that can make the share market efficient as well as the insurance companies in the upcoming days.

Keywords— Market price per share, EPS, BVPS, RONW, NER,PE Ratio, Earning potential ratios (EPR)

1 INTRODUCTION

INSURANCE enhances the quality of life and ensures the development and survival of all other businesses in general. The main objective of insurance apart from its basic function is to enhance national development through effective wealth creation, protection and conservation. The significance of insurance to any nation's economy cannot be undermined. Perhaps, no country can experience a meaningful development without the presence of formidable insurance industry, thereby making insurance business in any nation indispensable irrespective of its quota to the GDP.

Financial ratios were used by users for making their economic decisions; including investing, and performance evaluation decisions. Efficiency measures are calculated based on published accounting numbers which are publicly known information. Earning Potential Ratios are an indicator for the firm's overall efficiency. Earning Potential Ratios measures earning capacity of the firm, and it is considered as an indicator for its growth, success and control. Creditors are interested in Earning Potential Ratios since these ratios indicate the company's capability to meet interest obligations.

Insurance sector has huge opportunity and produces the highest income comparing to all other sectors in India, but a very few studies have done in this sector. This study tries to examine the impact of Earning Potential Ratios on market share price movement of insurance business in India.

2 LITERATURE REVIEW

Martikainen (1993) The author analyzed the connection between stock rate of returns and financial ratios by multivariate analysis . The study mentioned that no single financial ratios possess incremental information about stock returns. Another outcome of the study is that the weak relationship between betas and financial ratios. The researcher attributes this to the high estimation errors in betas, problems of measuring verity market portfolio and inefficiency of the Finnish exchange.

(Ciftci, 2004) analyzed the efficiency of insurance companies. The study was performed under two groups, namely life and non-life insurers by applying the DEA technique. The results reveal that only few non-life insurance companies operate efficiently. With regard to the insurance companies, only 3 out of 12 find to be efficient.

In another study, (Pasiouras, 2008) investigate the Greek banking efficiency and relates it with the share performance Their multivariate analysis of the stock

returns and efficiency changes indicate a positive and statistically significant relationship between technical efficiency changes and stock returns, while the analysis reports no impact of changes in scale efficiency on stock returns.

(Abidin, 2011) Test the efficiency performance of non-life insurers in Indonesia during the quantity of 2005-2007. Their results gathered from the DEA measurement show that bigger insurance firms gave the impression to possess a far better efficiency score compared to their smaller. Their findings also confirm that, apart from net premium margin (NPM); no significant associations are existing between the worth of DEA, return on assets (ROA), and return on equity (ROE). this suggests that an increase in NPM results in an entire efficiency increase**.**

(Aydemir, 2012) also employ a panel data analysis so on obtain out the connection between the financial ratios and stock prices of non-financial firms. Their findings provide that liquidity ratios, Earning Potential Ratios and leverage ratio, interestingly, have positive impact on stock returns.

The analysis of return on assets and earnings per share on the stock market within the banking companies in Indonesia by (Rocky, 2013) acknowledged that variable which provides biggest influence on stock price is earnings per share.

Szymanski, D., Bhardwaj, S., &Varadarajan, P. (1993). The authors found that, on the typical, market share features a positive effect on business profitability. Insurance sector has huge opportunity and produces the very best income comparing to all or any other sectors in India, but a really few studies have wiped out this sector. This study tries to look at the impact of Earning Potential Ratios on market share price movement of insurance business in India.

3 SCOPE OF THE STUDY

A lot of researches have been conducted on financial performance and market share price in different sectors excluding the Insurance sector in India. There is less study found in General Insurance which focused upon the relationship between the financial performance & Market Price of share.

So the outcome of this study will keep a big contribution in literature and help the regulators to formulate policy and its implementation. This study will also help to investors in taking the rational decision while making the investment by keeping in mind the established relationship between the Earning Ratios and Market price of Shares.

4 RESEARCH METHODOLOGY

4.1 RESEARCH OBJECTIVE

The study attempts to find out the impact of Earning Potential Ratio on market share price of insurance business in India with respect to Public and Private sector listed general insurance companies in India.

Here we consider market share price as the dependent variable and the Earning Potential Ratios likeEarning per share (EPS), Book value per share (BVPS), Return on Net worth (RONW), Net Earnings Ratio(NER) and Price Earnings Ratio (PE) as independent variables.

Therefore, the title "Impact of the Earning Potential Ratios on Market Share Prices of Listed General insurance companies in India" will fulfill by following hypothesis.

4.2 RESEARCH HYPOTHESIS

H_{01}: There is no significant relationship between the market share price and the Earning Potential Ratios of ICICI Lombard (Private sector).

H_{11}: There is a significant relationship between the market share price and the Earning Potential Ratios of ICICI Lombard (Private sector).

H_{02}: There is no significant relationship between the market share price and the Earning Potential Ratios of NIACL (Public sector).

H_{12}: There is a significant relationship between the market share price and the Earning Potential Ratios of NIACL (Public sector).

The study model: $P = b_0 + b_1 EPS_{it} + b_2 BVPS_{it} + b_3 RONW_{it} + b_4 NER_{it} + b_5 PE_{it} + \epsilon_{it}$

Where, P = Market price per share

b0 = Constant

EPS= Earnings per share

BVPS= Book value per share

RONW=Return on Net worth

NER=Net Earnings Ratio

PER= Price Earnings Ratio ϵit = Residual and b1, b2, b3 b4 & b5 are coefficients of the variables

4.3 SOURCES AND SIZE OF DATA

This study was conducted based on the secondary sources and data were collected from audited annual reports of listed General insurance companies in India. Out of 34 General Insurance Companies there are only 2 general insurance companies ICICI Lombard and New India Assurance Company (Each from

Public & Private sector) are listed and both companies taken for study purpose. New India Assurance Company from public sector (listed in Nov 2017) and ICICI Lombard is from private sector (listed in Sep 2017). Thus the data for the study consists of 2 insurance companies listed in Bombay Stock Exchange for the period of 3 years (Quarterly) from Dec 2017 to Oct 2020 and allowing us to form a panel of 11 observations.

4.4 DEPENDENT AND INDEPENDENT VARIABLES

For this study we have used Earning Potential Ratios as EPS, BVPS, RONW, NER,PE Ratio (Earning potential ratios)as independent variables and market share price as dependent variable.

- **Earnings per share (EPS)=**It indicates how much earning on each equity share that the company is generating for its shareholder.
  - **EPS =Earnings after tax / No of available to equity share**
- **Book value per share (BVPS) =** Book value per share is calculated by totaling the company's assets, subtracting all debt, liabilities, and the liquidation price of preferred stock, then dividing the result by the number of outstanding shares of common stock.
  - **BVPS = (Total Shareholders' Equity – Preferred Equity) / Total Outstanding Common Shares**
- **Return on Net Worth (RONW)=** This ratio reflects the post-tax return generated on net worth of an insurer. It's a measure of overall return on the equity deployed in the business. it represents as follows:
  - **RONW = Net Income / Shareholders' Equity**
- **Net Earnings Ratio (NER) =** This ratio measures the overall profitability of an insurer after factoring underwriting result, operating expenses as well as investment income and tax.
  - **NER= Profit After Tax /Net Premium Written**
- **Price Earnings Ratio (PER) =** The price earnings ratio formula is calculated by dividing the market value price per share by the earnings per share. It is most often calculated at the end of each year with the annual financial statements. In either case, the fair market value equals the trading value of the stock at the end of the current period.
  - **PE Ratio= Market Price per Share / Earning per share**

5 DATA ANALYSIS& INTERPRETATIONS

In order to identify the research questions, we have adopted simple correlation & regression analysis.

Table 1 & 2 presented the summary of descriptive statistics of the ICICI Lombard insurance Company& New India Assurance company India ltd listed in Bombay Stock Exchange among 34 listed General insurance companies.

Table 1 Descriptive Statistics of ICICI Lombard General Insurance

	Mean	Std. Deviation	N
CP	1002.6955	229.14017	11
EPS	6.1745	1.15094	11
BVPS	117.6864	14.87094	11
RONW	.0527	.00647	11
NER	.1300	.02049	11
P/E	163.7727	31.13512	11

Table 2 Descriptive statistics of New India Assurance company India ltd(NIACL)

	Mean	Std. Deviation	N
CP	213.8364	177.34660	11
EPS	5.7727	6.94717	11
BVPS	128.2764	61.16982	11
RONW	3.1591	4.95422	11
NER	.0655	.09048	11
P/E	17.2009	99.22675	11

Average of Market share price of ICICI Lombard is 1002.69 with deviation of 229.14. As against NIACL average market share price is 213.84 with deviation of 177.34. Hence Share price of ICICI is having more deviation as compared to NIACL.

The mean value of Earning potential ratio EPS PE & NER of ICICI Lombard is higher than the NIACL but the Earning Potential Ratio BVPS and RONW of NIACL is higher than the ICICI Lombard.

Table 3 Pearson Correlation Analysis of ICICI Lombard

		CP	EPS	BVPS	RONW	NER	P/E
Pearson Correlation	CP	1.000	.578	.852	-.106	.038	.631
	EPS	.578	1.000	.756	.655	.766	-.262
	BVPS	.852	.756	1.000	.099	.245	.307
	RONW	-.106	.655	.099	1.000	.830	-.772
	NER	.038	.766	.245	.830	1.000	-.683
	P/E	.631	-.262	.307	-.772	-.683	1.000

Table 4 Pearson Correlation Analysis of NIACL

		CP	EPS	BVPS	RONW	NER	P/E
Pearson Correlation	CP	1.000	.891	.548	-.354	.105	-.015
	EPS	.891	1.000	.689	-.239	.260	.183
	BVPS	.548	.689	1.000	-.327	.666	.060
	RONW	-.354	-.239	-.327	1.000	.040	.184
	NER	.105	.260	.666	.040	1.000	.277
	P/E	-.015	.183	.060	.184	.277	1.000

We have done correlation analysis to find out the relationship between the independent variables with dependent variables. Table 3 & Table 4 showed a relationship of Closing price with Earning potential ratios of public and private sector NIACL & ICICI Lombard respectively. After correlation analysis it was found that EPR that is EPS BVPS & PE ratio of ICICI has positive correlation with stock market price while NER does not have a significant relationship with market price of share. RONW of ICICI Lombard showing a negative relation with Market price of share.

In comparison to this NAICL ‘s EPR EPS, BVPS & NER showing a positive relationship with market price while on the other side PE and RONW showing the negative relationship with Market Price of share.

REGRESSION ANALYSIS

The study used a regression model to analyses the relationship between dependent variable and the independent variables. The first step carried out was to test the fitness of the model in explaining the relationships between the study variables.

For ICICI Lombard the R coefficient or the correlation is at a positive of 0.997. This shows a high and positive correlation between the market price of shares and the EPR. The R square which is also called coefficient of determination is 0.987. This indicates that the EPR used in the study can explain the variations in market price of share to the extent of 98.7%.

And for NIACL the R coefficient or the correlation is at a positive of 0.856. This shows a high and positive correlation between the market price of shares and the financial performance indicators. The R square which is also called coefficient of determination is 0.71. This indicates that the financial performance indicators used in the study can explain the variations in market price of share to the extent of 71.2%.

*Table 5**Model Fitness Test for ICICI LOMBARD***

Indicator	**Coefficient**
R	0.997
R Square	0.993
Adjusted R Square	0.987
Std. Error of the Estimate	26.45

This shows that the combined effects of EPR's have a big influence on the market price of listed private sector general insurance in India. The adjusted R of 98.7% is a slight insignificant drop of 0.006 from 99.3%. This is an indication that there may not be other factors that can influence market share prices of private sector general insurance. Such factors could be quality of management, perception on the insurance company by shareholders and management signaling strategies.

Table 6Model Fitness Test for NIACL

Indicator	**Coefficient**
R	.925
R Square	.856
Adjusted R Square	.712
Std. Error of the Estimate	95.16

This shows that the combined effects of EPR's have a big influence on the market price of listed public sector general insurance in India. The adjusted R of 85.6% is a drop of 14.4 from 71.2%. This is an indication that there may be few other factors in the market that can influence market share prices of public sector general insurance and hence the reduction. Such factors could be quality of management, perception on the insurance company by shareholder'smanagement signaling strategies & claim settlement etc.

Table 7ANOVA for ICICI Lombard

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	521553.239	5	104310.648	149.060	.000[b]
	Residual	3498.939	5	699.788		
	Total	525052.177	10			

a. Dependent Variable: CP
b. Predictors: (Constant), P/E,EPS, RONW, NER, BVPS

Table 7, presents the ANOVA of the study variables.

For ICICI Lombard, the independent variables have a combined F-score of 149.06 which have a p-value of 0.00 which is a statistically insignificant coefficient. Compared to the acceptable level of significance of 0.05 the ANOVA results show that the combined effect of EPR's has a statistically insignificant influence on market price of shares of private sector general insurance companies. The results showed that there is a significant moderate relationship between the market price per share with the EPS BVPS RONW NER PE ratios as a total. Other factor also affecting the share prices of ICICI Lombard.

Table 8 ANOVA for NIACL

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	269237.491	5	53847.498	5.946	.036[b]
	Residual	45280.674	5	9056.135		
	Total	314518.165	10			

a. Dependent Variable: CP

b. Predictors: (Constant), P/E , BVPS , RONW, EPS , NER

Table 8, presents the ANOVA of the study variables.

For NIACL, the independent variables have a combined F-score of 5.946 which have a p-value of 0.036 which is a statistically significant coefficient. Compared to the acceptable level of significance of 0.05 the ANOVA results show that the combined effect of EPR's has a statistically significant influence on market price of shares of public sector general insurance companies. The results showed that there is a significant positive relationship between the market price per share with the EPS BVPS RONW NER PE ratios as a total.

Table 9 Regression Coefficient of ICICI Lombard

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1172.473	259.801		-4.513	.006
	EPS	154.547	33.696	.776	4.586	.006
	BVPS	-.298	1.760	-.019	-.170	.872
	RONW	3474.886	3334.157	.098	1.042	.345
	NER	-152.910	1137.714	-.014	-.134	.898
	P/E	6.672	.585	.907	11.410	.000

Table 9 displays the respective influence of EPR'S on market price of shares. In ICICI Lombard general insurance, it can be noted that the beta coefficients for BVPS & NER ratio are weak which shows that one EPR on its own has minimal

influence on the price of shares, while RONW EPS & PE ratio showed a strong influence on Market Price of shares.

Table 10 Regression Coefficient of NIACL

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	167.400	106.073		1.578	.175
	EPS	26.555	6.902	1.040	3.847	.012
	BVPS	-.706	1.103	-.244	-.640	.550
	RONW	-5.543	6.988	-.155	-.793	.464
	NER	101.441	561.521	.052	.181	.864
	P/E	-.315	.344	-.176	-.917	.401

Table 10 displays the respective influence of EPR'S on market price of shares. It can be noted that the beta coefficients for BVPS, RNOW & PE ratio are weak which shows that one EPR on its own has minimal influence on the price of shares.

6 FINDINGS &CONCLUSION

This study examined the relationship between the EPR's together with India insurance public & private sector listed general insurance companies share prices during the period (2017-2020). Based on the results of the study, we have found that the accounting based profitability measures RONW, EPS & PE ratio has only significant contribution to the market share price change of insurance companies in India. These results imply that the opposite profitability measures haven't any significant relationship with the market share price. This study gives an indication to the investors about the effectiveness of the performance of Earning Potential Ratios on share price movement in insurance business. measures RONW, EPS & PE ratio has only positive relationship with share price which indicates that the management has efficiency on earning profits on investing in assets. The results imply that insurance companies should focus on core businesses instead of following conglomeration strategies.

Results of the study are expected to assist insurance firms to require necessary operational steps towards improving efficiency also on provide investors with useful insights in making investment decisions.

Finally, the two key conclusions have been arrived at. First the study found

that a single EPR'S (whether in Private or in public sector) is not enough to influence the market price of shares. It can therefore be concluded that there is a multiplicity of factors that analysts and investors refer to before they can make a decision on buying shares.

The second key finding is that key EPR'S have a significant combined influence and effect on market price of shares. This leads to the conclusion that EPR'S have a single most significant input in share buying decisions

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