Pakistan Social Sciences Review P-ISSN 2664-0422
April-June 2022, Vol. 6, No. 2 [1012-1025] O-ISSN 2664-0430

Pakistan Social Sciences Review
www.pssr.org.pk

RESEARCH PAPER

The Relationship between Fundamental Variables and Stock Returns in the Oil and Gas Companies of Pakistan

Arsalan Ali Faisal*[1] Safia Bano[2] Nadir Khan[3]

1. MBA Student , Institute of Management Sciences, University of Balochistan, Quetta, Balochistan, Pakistan
2. Assistant Professor, Institute of Management Sciences, University of Balochistan, Quetta, Balochistan, Pakistan
3. Assistant Professor, Institute of Management Sciences, University of Balochistan, Quetta, Balochistan, Pakistan

DOI http://doi.org/10.35484/pssr.2022(6-II)90

PAPER INFO

Received:
March 23, 2022
Accepted:
June 19, 2022
Online:
June 21, 2022

Keywords:
Book to Market, Dividend Yield, Panal Data, Regression, Price to Earnings Ratio, Random Effect Model, Stock Returns

***Corresponding Author**
Rana_sonu2010@yahoo.com

ABSTRACT

This paper investigates the relationship between annual stock returns, book to market ratio, dividend yield ratio and price to earnings ratio. A sample of twelve oil and gas sector companies listed on the Pakistan Stock Exchange (PSX) were selected. The annual average values for the suggested variables from 2008 to 2017 were obtained and calculated. The panel data regression method using random effect model was applied. The result of the paper show that only book to market ratio has positive correlation and has a significant impact on the stock returns and has the ability to predict future returns for investors. While, the other ratios, like, dividend yields, price to earnings ratio have a positive correlation but insignificant impact on the stock returns. Findings of this study suggest that investors can use and apply the investment criteria that utilizes book to market ratio to earn returns on their investment and minimize the risk on the investments.

Introduction

All over the world the general belief regarding finance is considered as crucial component of economic growth which has increased the significance of financial market. For the growth of industry and commerce the stock market plays essential role which the end effects the economy of the country on a large scale. The country's governmental, industrial units and the central bank exposed a close association with the stock market as they are key investors in the stock. By determines the stock market growth and economic development relationship and concluded that by increasing the magnitude of stock market and the market capitalization of an emerging market the economic growth can be attain in a country (Nawaz, et al., 2010).

Different economic theories and their empirical evidence have also made firm believe that prices of different firms listed in stock market effect by many micro and macro-economic factors. While in developing and emerging economies such as

Pakistan, there is a close relationship between macroeconomic forces such as economic, political and social effect on the stock prices which behave differently. These forces ultimately brought up the results in the financial statements of the companies and provide a mean of prediction for the investors by going through the financial statements and to predict the suitable return on the embedded of their funds (Noordin, et al., 2014)

While it was recognized some other characteristics of capital market which makes the capital market in developed economies from the emerging economies and effect the stock market variable in different manner such as size of firms, liquidity difference, asymmetric information, nature of market which then effect the prices of stock (Fifield, et al., 2002).

As Pakistan is a developing country and its economy is keep growing every fiscal year, which make fast growth of stock market, making an attraction to the investor. According to the recent economic survey of Pakistan conducted by ministry of finance in 2016-17, Securities Exchange Commission of Pakistan (SECP) responsive and welcoming strategies and reforms in stock market grounded on the improved and enhanced broad monetary indicators, the Pakistan Stock marketplace got the position of Emerging Market from Frontier Market and this upgradation has declared by the Morgan Stanley Capital International (MSCI).

Pakistan equity market is offering an interesting study because the concern between macroeconomic fundamentals and aggregate equity prices in emerging market is bit more complex, moreover, the stock prices in emerging market are more speculative involving the factor of volatility and less affected by the macroeconomic fundamental (Khawaja & Mian, 2005).

Pakistan's economy has faced dramatically changes in past decades, the uncertainty related to political conditions, burden of foreign debt, lack of foreign investment, lack of fiscal and monetary policy was unadorned. Following the millennium goals, the Pakistan come to a new era of development and stability and reforms of financial markets, monetary policy and structural reforms brought considerable growth. Meanwhile, the rise in stock market capitalization and foreign investment has increased. Moreover, on one side the Pakistan's economic variables tend to improve but the stock market of Pakistan remains volatile (Hussain, et al., 2015).

Literature Review

Dividend Yield (DY) Ratio

Dividend yield is how much an organization pays out in profits in respect to its floating share price. By considering the dividend yield as a fundamental ratio and its impact on the stock, many studies have been conducted.

Determines an after-tax version of CAPM by taking the data of United States (US) stocks, the result accomplishes that, there was a strong positive association is found among DY of common stocks and before tax expected returns(Litzenberger & Ramaswamh, 1979). Similar evidence is also found from the stock market of UK when dividend yield effect on the price level effect and size of the UK stocks(Levis, 1989).

On the Hong Kong real estate stock, applying the multiple regression model method, the results revealed that the dividend yields have leaning to rise with the variation of earning prices of the stock. With high price to earnings ratio there is relatively low dividends yield appears and, on the contrast, a higher profit will lead to higher PE ratio and stock prices(Tse, 2002).On Karachi Stock Exchange by taking few control variables along with DY, the multiple regression results provided with the fact that on the stock prices of the firm there is influence of dividend which shows significant increasing trend. Similar results are also obtained after applying multiple regression on Indonesian stock exchange, the result reveals DY ratio has positive relationship effect on returns of the stock(Margaretha & damayanti, 2008).

By applying regression model onStock Exchange of Pakistan, the results suggested that on the market price of the stocks the dividend payout ratio and dividend yield have significant impact while the variables such as size, debt to equity have negative affiliation with the stock prices(Nazir, et al., 2010).

Price to Earnings (P/E) Ratio

Many researchers indicates that the P/E ratio growth remains supportive on the way to regulate prices of stocks as the PE relationship between the yields of government bond for long term duration, stock returns and price earnings ratio, the outcomes exposed a long term association between the selected variables government bonds, stock prices and price to earnings ratio(Durre & Giot, 2007).By getting well understanding of the PE ratio, the author used both macroeconomic and firm specific variables on NYSE, the result indicates that aggregate bond yield and financial risk are negatively associated with price to earnings ratios(Huang, et al., 2007).

By conducted research on the sector of textile firms listed in KSE by looking the impact of P/E ratio and B/M ratio. The results obtained by applying linear regression and multiple and it revealed that PE ratio and BM ratio is not depending on the returns of the stock (Yilmaz, et al., 2008). While, applying fixed effect model on KSE firms, it discovered that the PE and equity have negative relationship between them. On Tehran Stock Exchange, future earnings on the basis of PE ratioconcluded that there were positive correlations of EPS, DY with high BM ratio and returns for future having small cash flows(Arsalan & Zaman, 2014).

To examines the dynamic and static relationships between price to earnings ratio, total assets, dividend yields and stock returns from Jordanian companies the results revealed by using vector error correction model that there is a long run equilibrium between price to earnings ratio, dividend yields, size and stock return(Al-Malawa, et al., 2010). While, on the Malaysian stock market, the Kuala Lumpur Composite Index (KLCI)the high level of Price to earnings is reason of falling the stock returns which is rejected by this study and proofs that PE ratio is not a powerful predictor of the stocks listed in the KLCI (Ong, et al., 2010).

Book to Market (BM) Ratio

By testing the market inefficiency based on two strategies such as Book to market price and reversal of return strategies, there is positive association found amongst BM ratio with average returns on NYSE stocks(Rosenberg, et al., 1985). Followed Fama-Macbeth regression model and constructed a portfolio based on BM ratio size of the firms and found grounded connection with stock returns (Fama & French, 1992).

The positive signification of the book to market ratios similarly tested in multi countries such as Germany, France, U.K, U.S. & Switzerland as mentioned by(Capaul, et al., 1993). But by applingthe 4-Factor model with 04 aspects of risks and employing CAPM model on the stock exchanges of New York, America and Nasdaq. The result shows that for returns on stock the BM and leverage are important measures and having significant negative association with the stock returns.

Another study by taking four variables sales to price (SP) ratio, debt to equity (DE) ratio, book to market (BM) value and firm size of non-financials companies that registered on NYSE, the results revealed that the book to market value and debt to equity had consistent explanatory power while the sales to price ratio had the strongest association among other variables on stock returns(Barbee, et al., 1996). Similar results were also drawn from Korean Stock Exchange that BM ratio is best interpreter of the returns associated with stocks which is constant with findings of previous studies while, size and BM ratio has negative association with returns when keeping the cross sectional equity return regressed alone(Dhatt, et al., 1999).

As studied on Tokyo Stock Exchange (TSE) by getting the monthly data on common stock. The study concluded that the firms with high BM ratio has strong market effect on stock returns and they also applied the TFM which provided by Fama and French (1993) which is rejected by this study that it does not able to explain the stock return, but the characteristic model has ability to explain the stock returns(Daniel, et al., 2001).

By conducting the study on the China Stock Market and the main aim to test the Fama& French factors in pricing equity stocks. The trading and financial statements data of all listed companies registered in China Stock Market & Accounting Research (CSMAR) is collected. The result concludes that Three Factor Model exist in China, as the accounting information superiority and the investment policy might pretentious the data gathered from the BM ratios of the firms. The portfolio had negative association between stock return and size and showed no pattern. The portfolio showed less clear behavior when its sorted by book to market value which indicated that BM ratio value had low predictor power to determine the of future returns(Wang & Xu, 2004).

Comparable study was also conducted on Athens Stock Exchange. The book to market value has not shown any noteworthy connection with the returns of stocks on the basis of making portfolio.

So far, the study on the fundamental variables are done on the developed and emerging markets, the study also been followed to many growing markets as well and conducted in central Asia especially. A study conducts on the Indian stock exchange by taking 455 companies over the period of ten years (1997 to 2007). Results revealed that the TFM present is more better explain the cross sectional variation than CAPM. The BM equity have meaningfully positive connection with returns of stocks

& the P/E ratio & size have showed significant negative connection with returns of stocks in India.

Another Indian researcher conducted the study on the Indian companies by making the portfolio. According to the research results there was found low predicting power of the BM ratio on stocks while on the basis of size the it has more explaining power of the stock return of the companies.

However, a study on 26 listed companies of chemical and pharmaceutical in KSE. The data is collected from 2000-2009 and regression method is employed to conclude the results. The result provided the fact that book to market best explained the power of stock return of the companies(Hasan, et al., 2015).

Empirical Model

To analyze the impact of companies rations over the stock prices of the companies the equation is empirically modeled.Based on hypothetical statements and variables of the study the Empirical Model has derived. The dependent variable is the Stock Returns (Y) and independent variable are BM, DY & PE. To conduct the significant relationship of the dependent and independent variable, panel data regression model was formulated into the regression equation.

$Y = \beta_0 + \beta_1 (BM_{it}) + \beta_2 (DY_{it}) + \beta_3 (PE_{it}) + e_{it}$:

Y= Stock Return

β_0 = Constant

e = Error Nuisance (Error Term)

$\beta_1 - \beta_3$ = regression coefficient of each independent variable

BM_{it} = Book to Market Ratio

DY_{it} = Dividend Yield Ratio

PE_{it} = Price to Earnings Ratio

Hypotheses

Considering the main purpose of the study, the given below hypothesis are used to predict the outcomes this research.

H_1 Book to Market ratio has significant positive effect on the stock returns of oil and gas companies.

H_2 Dividend Yield ratio has significant positive effect on the stock returns of oil and gas companies.

H_3 Price to Earnings ratio has significant positive effect on the stock returns of oil and gas companies.

Material and Methods

Research Design

As per quantitative and descriptive nature of study, Panel data methodology has been adopted and by applying random effect regression model has been tested to determine the effect of BM ratio, DY ratio and PE ratio on the returns of the stocks of oil and gas companies listed in Pakistan Stock Exchange (PSX).

Data Collection

The data is comprised on the secondary data covering the period of ten years from 2008 to 2017. From the Pakistan Stock Exchange (PSX) average closing prices of the oil and gas sector companies were obtained through the site accessed via www.psx.gov.pk and the financial information accumulation strategy used, is grounded on the financial ratios of companies calculated from the financials statements of the companies, published on the Business Recorder, site accessed via www.brecorder.com. PSX is a stock exchange belongs to Pakistan Government while Business Recorder is website renowned and presented all the market events and it's a reliable source for happenings in the country's stock exchange.

Variables for this study are being defined after trying to cover the literature available about this thesis. Since of certain restrictions I have constrained this consider to four factors and the reason for selecting few factors was to consider their impacts in separation and after that combine them with other components in a segregated think about, so the importance of individual variable may be checked. First, I took the stock prices where I calculated the stock returns and keep it as a dependent variable while three variables specifically Book to Market (B/M) Ratio, Dividend Yield (D/Y) Ratio & Price to Earnings (P/E) Ratio are selected as independent variable or the potential determinants of stock returns of Pakistan Oil and Gas sector. The operational definition and measurement of variables are us under:

Stock Return

Stock returns are the earnings that the stockholders make out by trading of stocks. This return may well be within the frame of profit through trading or in the shape of surpluses/dividends provided by the corporation to its shareholder timely.

Stock returns may be in positive or negative and they are not fixed, inconstant and contains risks and consider risky investment as well.The formula to measure the stock return is as under:

Formula

$$R_{it} = \frac{Pit - P(it-1)}{P\ (it-1)}$$

Where;

R = Return of the stock

Pit = Last price of the current stock

P(it-1) = Last price of the previous stock period

Price Earnings Ratio

To assess the price of the stock which are traded on the stock market is calculated by the Price to earnings (P/E) ratio. It's a fundamental variable and calculate by dividing the market price of the firm stock on the Earning Per Share (EPS). To estimate P/E ratio, we first found out the EPS which is measured by dividing the net profit before tax on the number of shares outstanding.

Formula

$$\text{P/E} = \frac{\text{Market Price of the Stock}}{\text{Eerning Per Share (EPS)}*}$$

$$\text{EPS} = \frac{\text{Net Income After Tax}}{\text{Common Number of Shares Outstanding}}$$

Book to Market Ratio

The book to market (B/M) ratio is a comparison of the stock price prevailing in the market to its price prevailing in the company's book of accounts. To find its value we need the financial position of the company and the trading/market value of stocks. The formula of the B/M ratio is given as under.

Formula

$$\text{B/M} = \frac{\text{Market Price per Share of Common Stock}}{\text{Book Value per Share of Common Sotck}*}$$

$$\text{Book Value} = \frac{\text{Common Stock Equity}}{\text{Number of Shares of Common Sotck Outstanding}}$$

Dividend Yield

To compare the company's annual cash dividend compensated to its stockholders with the average market value of the shares in the year is known as dividend yield. To calculate DY ratio, we need to first calculate its Dividend Per Share in a following manner, while the value of dividend yield is shown in percentage:

Formula

$$\text{DY} = \frac{\text{Dividend Per Share}}{\text{Market Price Per Share}}$$

$$\text{Dividend Per Share} = \frac{\text{Annual Dividend Per Share}}{\text{Stock Price Per Share}}$$

Sampling

The sampling for this study is selected as oil and gas sector companies listed in Pakistan Stock Exchange (PSX). There are total twelve listed oil and gas companies which are Attock Petroleum Ltd, Bushrane LPG, Hascol Petroleum Ltd, Hi-Tech Lubricant, Mari Petroleum Ltd, Oil and Gas Development Corporation, Pak Oil Field, Pakistan Petroleum Ltd, Shell, Sui Southern Gas Corporation, SNGP and Pakistan State Oil. Two of the listed companies Hascol Petroleum Ltd and Hi-Tech Lubricant are newly listed and due unavailability of data for the research covering period are then omitted from the data collection and only ten companies are considered for the study.

Research Analysis Tools

Casual relations between variables in social world is a primary goal of empirical social science to make data base inferences. To track individual trajectories over time, it is necessary to collect panel or longitudinal data which has multiple-dimension data including measurement as well.

In my research study the data is quantitative and consist as longitudinal and heterogenous data that's why Panel Data is adopted to investigate the effect of BM ratio, PE ratio & DY ratio on the oil and gas sector companies stock returns in Pakistan.

For the same individual or firms, if the data is contained over many years and the observations are of numerous phenomena then panel data is best to apply on that data. Panel data deals in special way with the data of Time series and cross-sectional data which are in one measurement and ignores the data when it involves heterogenous data because of biased approximation. In heterogenous data, the panel data methodology usually controls the heterogeneity. Moreover, the panel data methodology also provides the researcher to explore explanatory variable and relationship with degree of freedom.

Many studies have used the same research methodology such as below mentioned authors,thus, panel data with fixed affect justifies the research methodology(Khan, et al., 2011)(Arsalan & Zaman, 2014).

While, for this study and the nature of data random effect model was best suited after applying the Hausman test as the probability was greater the value of 0.1%.

Results and Discussion

Finding and implications are derived from the results conducted in EViews.

Correlation Analysis

Correlation is the effect size, so we can verbally describe the strength of correlation using the guide that Evans (1996) suggest for the absolute value of regression. It tells us about the relationship among the variables and on the basis of the coefficients either there is weak, moderate & strong relation. As results shown in the below table where correlation between the variables, t-statistics and probability test has been tested.

A standardize regression coefficient of the Book to Market ratio is positive 0.391, t-statistics value is 4.2 which is greater than 2.0 and probability is 0.0001 which is less than 0.05. These results indicate that Book to Market ration has weak correlation but positive significance with oil and gas stock returns, which means that if BM positive variable is increase by 1 percent the stock return of oil and gas companies will increase by 0.39 percent and vice versa.

Similarly, a standardize regression coefficient of the Price to Earnings ratio is positive 0.262, t-statistics value is 2.69 greater than 2.0 and probability 0.0084 which is less than 0.05%. This indicates that the PE ratio has weak correlation but positive significance with oil and gas companies stock returns, as PE ratio increase 1 percent the stock of oil and gas companies will increase by 0.262 percent and vice versa.

The last standardize regression coefficient of the Dividend to Yield ratio is positive 0.032, t-statistics value is 0.318 less than 2.0 and probability 0.7504 which is greater than 0.05%. This indicates that the DY ratio has weak correlation with stock returns and do not possess positive significance relationship with oil and gas companies stock returns.

Table 1
Correlation Analysis

Correlation t-Statistic Probability	Book to Market Ratio	Dividend Yield Ratio	Price to Earnings Ratio	Stock Returns
Book to Market Ratio	1.000000			

Dividend Yield	0.126259	1.000000		
	1.259988	-----		
	0.2107	-----		
Price to Earnings Ratio	0.247360	-0.059012	1.000000	
	2.527280	-0.585205	-----	
	0.0131	0.5598	-----	
Stock Returns	0.391343	0.032205	0.262258	1.000000
	4.209853	0.318980	2.690386	-----
	0.0001	0.7504	0.0084	-----

Hausman Test

By testing the regression analysis for panel data, which model suits best such as to apply random effect or to apply fixed affect, it was necessary to apply the Hausman Test. After applying the test, it was come to know that the probability is greater than 0.1% so the random effect model is applied and best suited on the data.

Panel Data Regression Analysis

Using panel data estimation by applying random effect model the regression results are generated which are given below in Table 2.

Result Hypothesis 1

The outcomes indicate that only BM ratio has significantly affecting the dependent variable stock returns of oil and gas companies because the probability is

0.01% and less than 5% of p-value. This indicates that as BM ratio of any oil and gas company listed in PSX increase, it will result in increase in stock return. Therefore, we accept the null hypothesis that stock returns ha positive impact of BM ratio. The outcome has been found in number of studies such as (Hasan, et al., 2015).

Result Hypothesis 2

While, the price to earnings ratio has positively correlated but insignificant relation with the stock returns of oil and gas companies of Pakistan as its coefficient is 0.00000316, the probability value is 0.45 which is greater than p-value of 0.05. This result indicates that PE ratio is not a good predictor of oil and gas companies stock returns. The result is also supported by many studies such as (Ong, et al., 2010).

Result Hypothesis 3

The dividend yield ratio showed positive but found insignificant relation with the stock returns. Its coefficient value is 0.000152, probability value is 0.4286 which is greater than p-value 0.05. On the basis of results, the DY ratio is not a good predictor of oil and gas companies stock returns. The result is also supported by these studies where they also found the DY ratio as insignificant such as(Nawaz, et al., 2012)&(Ali, et al., 2015)

Table 2
Panel Data Regression

Variables	Model	Probability
C	-0.000733	0.0164
Book to Market Ratio	0.000347	0.0001
Dividend Yield Ratio	0.000152	0.4286
Price to Earnings Ratio	0.00000316	0.4510

Conclusion and Recommendations

The key objective of this research was to evaluate the effect of book to market ratio, dividend yield ratio and price to earnings ratio on the oil and gas companies stock returns which are listed in Pakistan Stock Exchange. Out of three hypotheses, only book to market ratio has significant impact on the stock prices returns of the oil and gas companies listed in PSX.

However, dividend yield ratio and price to earnings ratio are found insignificant to the stock prices returns. The study implies that investors can apply investment criteria on the basis of book to market ratio to earn returns because it has positively significant relation with stock returns. While, dividend yield ratio and price to earnings ratio have no prediction power for future returns and have insignificant information for investors.

The state like Pakistan, the funds employed in the firm with high BM ratio has significant impact on their stock prices. Besides, the companies when making their strategies to create worth for the investors they also taken into account the impact of BM ratio on their investment as it has substantial effect on the market value which increases wealth for the shareholders. While, the positiveness of the BM ratio on the stock returns indicates its capacity as an indicator of economic downturn and opposed market circumstances in forthcoming.

These outcomes could have been supportive in further improvement of the study and literature of Book to Market ratio to indicate future stock market performance in the under developed markets.

This study is conducted by taking the data as year wise as the financial ratios are taken on yearly basis from the annual financial statements of the oil and gas companies however, it can be taken as quarterly to get more refine results which better predict the results.

As in this study only book to market ratio found to be best predictor of the stock returns but the Price to Earning ratio and Dividend Yield also posses decision capability among investors if they belongs to other than oil and gas sectors. There are also other variables such as Sales to Price ratio, Debt to Equity ratio, Size of fims, and profitability ratios which are used to predict the power of future returns.

Moreover, this study can also be applied on further sectos listed in Pakistan Stock Exchange (PXS) such as manufacturing sectors, financial sector, commodities sectors etc and the implication of model such as Three Factor Model (TFM) to predict the fundamental variables impact on the stuck return can be applied and there result can be compare to other similar research studies conducted in other countries as well.

References

A., G. & Yilmaz, M. K., (2008). Price earning ratio, dividend yeild and market to ok ratio to predict return on stock market: Evidence from the emerging market. *Journal of Global Business and Technology, 4*(1), 18-30.

Ali, A., Jan, F. A. & Sharif, I., (2015). Effect of dividend policy on stock prices. *Business & Management Studies: An International Journal, 3*(1), 56-87. DOI: 10.15295/bmij.v3i1.101.

Al-Malawa, M., Al-Omari, A. & Ayad, F., (2010). The ralationship between P/E ratio, dividend yield ratio, size and stock returns in Jordanian companies: A co-integration approach. *Internation journal of finance and economics, 49*(7), 87-103.

A., Nawaz, M. M. & Nazir, M. S., (2012). How dividend policy effects volatility of stock prices of financial sector of Pakistan. *American Journal of Scientific Research, 61*(1), 132-139.

Arsalan, M. & Zaman, R., (2014). Impact of dividend yield and price earnings ratio on stock returns: A study non-financial listed firms of Pakistan. *Research Journal of Finance & Accounting, 5*(19), 68-74.

Barbee, W. C., Mukherji, S. & Raines, G. A., (1996). Do sale price and debt equity explain stock returns better than book maret and firm size?. *Financial analysts journal, 52*(2), 56-60 DOI: 10.2469/faj.v52.n2.1980.

Capaul, C., Rowley, I. & Sharpe, W. F., (1993). International Value and Growth Stock Returns. *Financial Analyst Journal, 49*(1), 27-36 DOI: 10.2469/faj.v49.n1.27.

Daniel, K., Titman, S. & Wei, K. J., (2001). Explaining the cross-section of stock returns in Japan: Factors or characteristics?. *The Journal of Finance, 56*(2), 743-766 DOI: 10.1111/0022-1082.00344.

Dhatt, M. S., Kim, Y. H. & Mukherji, S., (1999). Relations between stock returns and fundamental variables: Evidence from a segmented market. *Aisa-Pecific financial markets, 6*(3), 221-233 DOI: 10.1023/a:1010071921399.

Durre, A. & Giot, P., (2007). An international analysis of earnings, stock prices and bond yields. *Journal of business finance and accounting, 34*(3-4), 613-641 DOI: 10.1111/j.1468-5957.2007.02010.x.

Fama, E. F. & French, K. R., (1992). The cross-section of expected stock returns. *The journal of finance,47*(2), 427-265 DOI: 10.1111/j.1540-6261.1992.tb04398.x.

Fifield, S., Power, D. & Sinclair, C., (2002). Macroeconomic factors and share returns: An analysis using emerging market data. *Journal of finance and economics, 7*(1), 54-62 DOI: 10.1002/ijfe.173.

Hasan, S. S. u., Farooq, S. & Muddassir, M., (2015). Stock returns indicators: Debt to Equity, Book to Market, Firm Size and Sales to Price. *Journal of Poverty, Investment and development, 16,* 25-32.

Huang, Y., Tsai, C. H. & Chen, C. R., (2007). Expected P/E, Residual P/E, and Stock Return Reversal: Time-Varying Fundamentals or Investor Overreaction?. *International Journal of business & economics, 6*(1), 11-28.

Hussain, S. M., Korkeamaki, T., Xu, D. & Khan, A. K., (2015). What drives stock market growth? A case of volatile emerging economy. *Emerging markets finance & trade, 51*(1), 209-223 DOI: 10.1080/1540496X.2015.1011533.

Khan, K. I. et al., (2011). Can dividend decisions affect the stock prices: A case of dividend paying companies of KSE. *International Research Journal of Finance and Economics, 76*(68), 68-74.

Khawaja, A. I. & Mian, A., (2005). Unchecked intermediaries: Price manipulation in an emerging stock market. *Journal of Financial Economics, 78*(1), 203-241 DOI: 10.1016/j.jfineco.2004.06.014.

Levis, M., (1989). Stock Market Anomalies: A Re-assessment based on the UK Evidence. *Journal of Banking and Finance, 13*(4-5), 675-695.

Litzenberger, R. H. & Ramaswamh, K., (1979). The effect of personal taxes and dividends on capital asset prices. *Journal of financial economics, 7*(2), 163-195 DOI: 10.1016/0304-405X(79)90012-6.

Margaretha, F. & damayanti, I., (2008). Influenc of price earnings ratios, dividend yield and market to book ratio to stock returns: a study on stock exchange of Indonesia. *Business and accounting journal, 10*(3), 149-160.

Mehmood, H. & Waheed, A., (2014). Impact of dividend yield and price earnings ration on stock returns: A study non-financial listed frims of Pakistan. *Journal of Basic and Applied Scientific research, 5*(14), 83-90.

Nawaz, M. M., Nazir, M. S. & Gilani, U. J., (2010). Relationship between economic growth and stock market development. *African Journal of Business Management, 4*(16), 3473-3479.

Nazir, M. S., A. & Nawaz, M. M., (2012). How dividend policy affects volatility of stock prices of financeial sector firms of Pakistan. *American journal of scientific research, 61*(1),pp. 132-139.

Nazir, M. S., Nawaz, M. M., Anwar, W. & Ahmed, F., (2010). Determinants of Stock Price Volatility in Karachi Stock Exchange: The mediating role of corporate dividend policy. *International research journal of finance and economics, 55*(55), 101-107.

Noordin, K., Muwazir, M. R. & Madun, A., (2014). The commercialisation of Modern Islamic Insurance Providers: A Study of Takaful Business Framework in Malaysia. *International Journal of Nusantara Islam, 2*(1), 1-13 DOI: org.10.15575/ijni.v2i1.44.

Ong, T. S., Yichen, Y. N. & Teh, B. H., (2010). Can high Price Earnings raio act as an indicator of the coming bear market in the Malaysia?. *International journal of business and social science, 1*(1), 195-213.

Rosenberg, B., Reid, K. & Lanstein, R., (1985). Persuasive evidence of market inefficiency. *The journal of portfolio managment spring, 48*, 9-16 DOI: 10.3905/jpm.1985.409007.

Tse, R. Y., (2002). Price-Earnings ratios, Dividend Yields and Real Estate Stock Prices. *Journal of Real Estate Portfolio Management, 8*(2), 107-113.

Wang, F. & Xu, Y., (2004). What determines Chinese Stock Returns. *Financial Analysts Journal, 60*(6), 1-33 DOI: 10.2469/faj.v60.n6.2674.