

Predicting Stock Return of UAE Listed Companies Using Financial Ratios

Dr. Arindam Banerjee¹

¹ Associate Professor, Deputy Director – Global MBA & Masters of Global Business and Director - Student Recruitment (UG Programs), S P Jain School of Global Management, Dubai, Dubai International Academic City, P O Box 502345, UAE

Correspondence: Dr. Arindam Banerjee, Associate Professor, Deputy Director - Global MBA & Masters of Global Business, and Director - Student Recruitment (UG Programs), S P Jain School of Global Management, Dubai, Dubai International Academic City, P O Box 502345, UAE. E-mail: arin_006@yahoo.com

Received: March 23, 2019

Accepted: May 7, 2019

Online Published: May 8, 2019

doi:10.5430/afr.v8n2p214

URL: <https://doi.org/10.5430/afr.v8n2p214>

Abstract

Over the past few decades, numerous research across the globe has been conducted to examine the impact of firm performance on its stock return. The findings of these studies have been varied. In spite of the long standing research in this area, several attempt towards exploring this relationship has led to limited success owing largely to the existence of volatility across different stock markets. The variance in the volatility in these markets make it extremely difficult to obtain a uniform measure. A volatile stock market makes it difficult for the accounting and financial variables to accurately predict the stock returns (Feris & Erin, 2018). The primary aim of this paper is aimed to investigate whether financial ratios can be used as a predictor of stock returns in the context of United Arab Emirates (UAE). The sample of the study includes thirty companies from the Dubai Financial Market (DFM) and Abu Dhabi stock exchange (ADX). Data is collected for the period of 2017. This research comprises of five independent variables namely, Earning Per Share ratio (EPS), Price Earning ratio (PE), Return on Equity ratio (ROE), Dividend Yield ratio (DY) and Debt Equity ratio (DE) and stock return is taken as the dependent variable. The study examines which among the given ratios can better predict stock returns both in the short run and the long run. The analysis is based on the regression analysis and correlation matrix. The results of correlation test revealed less multicollinearity between the variables and the regression results showed that Dividend Yield and the Return on Equity are statistically significant to predict the stock returns. However, Earning Per Share, Price Earning and Debt Equity could not predict the stock returns and thus can be safely considered as statistically insignificant. The t-stats test and p-value analysis were key indicators for arriving at the conclusion. The study can significantly benefit investors who can examine closely the dividend yield and return on equity while selecting an optimal portfolio.

Keywords: price earnings ratio, earning per share ratio, return on equity ratio, dividend yield ratio, debt equity ratio, stock return

1. Introduction

1.1 Introduction to the Problem

Financial ratios are one of the most important tools for assessing and analyzing the performance of firms. They help to compare and analyze a firm's overall health based on various parameters. Investors can use financial ratios to get an insight to the firm's profitability and its investment prospects (Horriagan, 1995). Thus, by using historical data from financial statements, financial ratios help in forecast a firm's future health. Additionally, they also help to compare and contrast financial performance of firms among their competitors. In spite of the long standing research in this area, several attempt towards exploring this relationship has led to limited success owing largely to the existence of variability in every stock markets. The variance in volatility of these markets makes it difficult to obtain a uniform measure. A volatile stock market makes it difficult for the accounting and financial variables to accurately predict the stock returns (Feris & Erin, 2018).

1.2 Importance of the Problem

A role of a stock exchange is to ensure that the companies are able to raise funds from investors. UAE has three stock exchange's namely Dubai Financial market (DFM), Abu Dhabi stock exchange (ADX) and Nasdaq Dubai that trades in international securities. Financial ratios are powerful tool to study and interpret financial information which can help investors make decision whether to invest in company's stock or not, Lasher, (1997). However, every market is unique, making it difficult to use an universal variable across markets as stock return predictor. Additionally, ratios can efficiently predict stock return under conditions of market stability. If everything remains stable then financial ratios will act as a good tool to predict stock returns, Al-ghalayini (2015).

2. Literature Review

2.1 Financial Ratios and Stock Returns

Kendal (1953) explored whether historical prices could be used to forecast future trends and prices. He used dividend yield ratio, price earnings ratio and later extended to other variables like default spread and interest rate and concluded that past sequence of price movements could not be used to predict future trends. In contrast, Cochrane (1997) found that dividend per share and dividend yield can forecast long term growth of stock returns and dividend. Kelly and McNamara (2008) examined the relation between the performance of investment in Australian common stock in Industrial sector and their Price Earnings ratio. The findings confirmed that the Price earnings ratio have no effect in the Australian stock market. Taani & Banykhaled (2011) found a positive relationship between earning per share, return on equity and the capital market. Similar studies were conducted for 100 non-financial companies listed on Karachi Stock Exchange, Pakistan that aimed to find ability of Price Earnings Ratio, B/M ratio and Dividend yield to predict stock returns, (Khan, Rehman, Razaq & Kamran, 2012). Studies by Phung, Nguyen & Huutho (2017) on Vietnamese stock market comprising panel data for 6 years from the year 2010 to 2016 listed both on the Hanoi stock exchange and Ho Chi Minh stock exchange evidenced that owner's equity on asset and debt to owner's equity had significant effect on stock trading volume. In spite of several accounting scandals and growing dissent on its applicability, financial ratios are still considered a good indicator for determining the company's stock price in the future (Lewellan, 2004). The study extensively used price book to price ratio to predict stock price in long run and concluded that ratios are still useful in predicting stock price. Beaver, (1996) looked into whether financial ratios can predict the future uncertainty. His research concluded that if financial ratios can play a major part in predicting failure then it can also predict the stock trading patterns and trends. His findings suggested that not all ratios are good predictors of stock returns. Liquid asset ratio and total debt ratio is weak in terms of their predictive power. Menike & Prabath (2014) explored the relation between accounting variable ratios and the stock price on a sample 100 companies listed on the Colombo stock exchange. Applying the simple and multiple regression analysis, the authors concluded that ratios had a substantial and positive impact on the stock prices and Earning Per Share has less effect on stock prices in Colombo Stock Exchange. Also, Book Value per share and Dividend per share showed positive effect on the share price. Fun & Basana (2011) examined the data of 45 companies listed on Indonesia stock exchange and found no signs of relationship between the price earnings ratio and the stock returns. Feltham and Ohlson (1995) developed the Ohlson model that focused on book value, dividend and future earnings.

Accounting information's like ratio, balance sheet, and cash flow can give investors insight into whether the stocks are an attractive buy or not (Basu, 1997). Further, there exists a linear relationship between companies' annual earnings and return. Financial ratios like dividend yield and earning per share can predict the stock returns. Subsequently Ball, Robin & Kothari (2000) followed Basu's research measures and examined the ratios in different countries stock exchange. Sattar, et.al (2017) analysed 13 commercial banks listed on Amman stock exchange (ASE) with the primary objective of finding the role of financial ratios in predicting the stock returns. The research applied linear regression with multiple variables to find a relationship between financial ratios and stock market returns. Using Earning yield ratio, dividend yield and book to market value, a relationship was found between the independent variable Earning yield and dependent variable financial ratios. The results revealed the predictability of the Earning Yield in forecasting the aggregate stock returns for Banks in ASE. Fu & Yee (2016) examined 17 companies in the financial sector listed on the Hong Kong Financial market (HKFM). The research failed to give a clear indication whether financial ratios can predict the stock return of financial companies listed in HKFM. Hence the research failed confirm which ratio would create most amount of value for the analysts and the investors. Study conducted by Muller & Ward (2013) in the Johannesburg stock exchange revealed that dividend yield and return on capital and equity are good predictors of stock returns in the long run. Mylonakis, Kafourous & Glezakos, (2012) examined 38 companies listed on Athens stock market. Their results concluded that Book value and EPS can predict the stock price in a fragmented market. Carl &

Chen, (2000) examined 50 companies listed on the Japanese stock market and using regression model found out that independent variables like Book to market ratio and Dividend yield impacts the earning and stock of the firm.

2.2 Earnings per Share (EPS)

Chang, Chen, Chian and Wen (2008) analyzed the relationship between EPS and stock return using panel cointegration technique under various scenarios such as growth rate and level of operating revenue. The cointegration result predicted the existence of a strong relationship between stock price and the EPS in the long run. According to a research by Jian & Yun, (1996) EPS has a major role to play to predict the returns in the Philippines market as well. Karami & Talaei, (2013) examined stocks listed on Turkey stock exchange and concluded that EPS has the ability to forecast 6% stock in the current year while in long run Earning per share can predict 63 % of stock return.

2.3 Price-Earnings Ratio (P/E)

Jain (2016) concluded the existence of a significant correlation between the Price Earning ratio and the returns of Bombay Stock Exchange (Sensex) and it can act as a predictor of stock market return. Historically, Sensex brings high return when the Price earning ratio moves below 17, and brings negative return whenever the Price Earning ratio moves above 21. This information can be used by the investor to take important investment decisions. Campbell and Shiller, (2001) in their studies examined that companies with high P/E ratios led to faster earnings growth.

2.4 Dividend Yield (DY)

Dividend yield has the capability to predict the expected return and the growth of stock returns Campbell & Shiller, (1988). There is high correlation among the performance of both rolled up index and share price index with dividend yield during the start of any period, and DY can act as a good predictor of stock market, Wilkie, (1993).

2.5 Return on Equity (ROE)

Equity investors keep a close eye on Return on Equity (ROE), this ratio gives a good indication to the investors. According to Ahsan (2012), portfolio performance in the future can be predicted by using the ROE and investors can examine historical ROE to predict the stock market trend. ROE conventionally was used to hedge the portfolio returns but later it was also found to be have good predictability. Research conducted by Arkan, (2016) indicated that in Kuwaiti Investment sector, Return on Equity ratio was found most useful to predict the stock returns.

2.6 Debt Equity Ratio (D/E)

According Barbee et.al. (1996), during the late 90's, Debt Equity ratio had higher instructive power to explain the stock return in comparison to market value of equity. But According to Fama, (1970) Debt equity ratio does not serve the purpose to predict the future returns since debt and equity can be raised by the company in short period of time, but it was said that when company had high debt, it made company look attractive to the buyers who wanted to merge the company since the company had to pay less tax.

3. Method

3.1 Data Collection

The data collected is secondary and largely quantitative in nature. Secondary quantitative data was collected to examine if the financial ratios impact and help in predicting stock returns. In this study, thirty companies listed on the Dubai Financial Market and Abu Dhabi Stock exchange were selected. The information and data collected was for the year 2017. Earnings per share, Price earning, Dividend yield, Return on equity and debt equity ratios were independent variables and the dependent variable was stock return. The financial ratios data was collected from the financial statements of the companies and stock returns was collected from Bloomberg UAE, (2017).

3.2 Theoretical Framework

As seen in figure 1, the theoretical framework shows dependent and independent variables of the research, the independent variables are the Price Earning ratio, Earning per share ratio, Return on Equity ratio, Dividend Yield Ratio and Debt Equity Ratio and the dependent variable is stock return. Hence this will be used to find out if the financial ratios (independent variable) can be used to predict return in stock market.

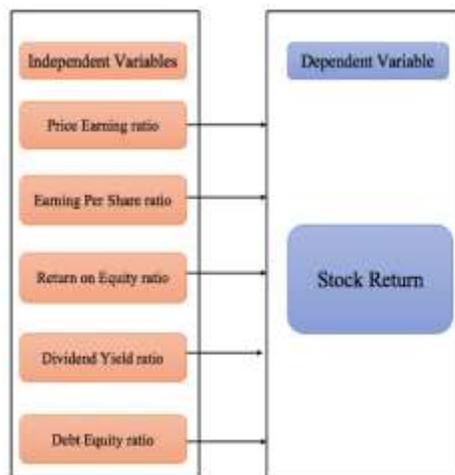


Figure 1.

3.3 Research Hypothesis

H0a There is no significant association between Price Earnings ratio as a predictor of stock return in the context of listed companies in UAE.

H1a: There is significant association between Price Earnings ratio as a predictor of stock return in the context of listed companies in UAE.

H0b There is no significant association between Return on Equity ratio as a predictor of stock return in the context of listed companies in UAE.

H1b: There is significant association between Return on Equity ratio as a predictor of stock return in the context of listed companies in UAE.

H0c There is no significant association between Earning per share ratio as a predictor of stock return in the context of listed companies in UAE.

H1c: There is significant association between Earning per share ratio as a predictor of stock return in the context of listed companies in UAE.

H0d: There is no significant association between Dividend Yield ratio as a predictor of stock return in the context of listed companies in UAE.

H1d: There is significant association between Dividend Yield ratio as a predictor of stock return in the context of listed companies in UAE.

H0e: There is no significant association between Debt Equity ratio as a predictor of stock return in the context of listed companies in UAE.

H1e: There is significant association between Debt Equity ratio as a predictor of stock return in the context of listed companies in UAE.

3.4 Research Design

Since the research follows an objective approach and positivist paradigm, hence following Long (2014) the research process is conducted in steps and the following step in data analysis is deduction approach. Hence this research follows a deductive approach. Deduction involves correlation analysis, multiple regression analysis and factor analysis. This research uses descriptive statistics, correlation analysis and regression analysis to prove if the hypothesis is accepted or rejected. Further, the study uses descriptive statistics for computing the mean, median, mode, max, min and Standard deviation for the thirty companies listed on the Dubai Financial Market and Abu Dhabi Stock Exchange. This will give the outlook of stock volatility and help understanding the general trend in the market for the year 2017. This will give clear indication about the trend of stock returns and ratios in the UAE market and also explain the variability that exists.

Correlation analysis is done to find the multi-collinear relationship between the independent variables namely, Earning per Share, Price Earning Ratio, Return on Equity, Dividend Yield, Debt Equity ratio and the dependent variable the stock returns. Correlation analysis is basically used to test the relationship between the independent and the dependent variable and is used for testing whether multi-collinear relationship can be found between the two. The final model

used is multiple regression model, this model becomes helpful to find if the five selected financial ratios are good predictors of stock returns or not. The model comprises Anova, Coefficient, Standard Error, t-stat and p-value. These all are deeply examined and explained in the research. These three models Descriptive statistics, Correlation analysis and Regression model combined attempts to answer the primary research questions and fulfill the research objectives.

4. Results

4.1 Descriptive Analysis

Descriptive analysis is the computation of Mean, Median, Max, Min and SD. As shown in Table 1

Table 1. Descriptive Statistics

	Mean	Median	Max	Min	Std. dev.
SR	-0.0642	-0.0643	0.2982	-0.5549	0.19326
PE	11.7387	8.6850	34.1200	4.0700	7.2429
EPS	0.7060	0.2600	11.5600	0.0200	2.0724
ROE	0.1030	0.1027	0.2265	0.0195	0.0585
DY	0.0558	0.0500	0.0992	0.0106	0.0211
D/E	0.4703	0.3925	1.5501	0.0278	0.3707

Where:

Mean: In this case Mean is the average of the 30 companies for both the financial ratios and the stock returns

Median: The value in the middle of the table

Max: The highest or the most

Min: The lowest value

Standard deviation: To see the amount of variability or how much values are scattered away from the mean.

Table 1 shows the Mean, Median, Maximum, Minimum and Standard deviation for the independent variables Price earnings ratio, Earning per Share, Return on Equity, Dividend Yield and Debt Equity and dependent variable stock return for 2017. For the Year 2017 the general stock return for the thirty companies is negative.

Table 1 clearly indicates that the value of Mean for the stock return is -0.0642 but the market variability is much higher than the mean value. Market variability or the Standard deviation of 0.1932 has been noticed which indicates that the panel data are spread even and indicate the wider range of values.

The price Earnings ratio has the Mean of 11.73 and lower standard deviation of 7.24. A lower Standard deviation than the mean indicates that the value has high variation. Since in UAE for 2017 it can be seen that the maximum PE ratio is 34.12 and minimum is 4.07 the maximum PE ratio indicates that the general stock price in UAE is high, a higher PE ratio indicates that a stock is an expensive buy or in some cases it can be considered overvalued, A high PE ratio means that the investors are expecting higher earnings.

The value of mean for the Earning Per Share ratio is 0.70 and the standard deviation is more compared to stock return which is 2.07, In this case it is visible that the standard deviation of stock return is lower than the variation of the Earning per Share. This is because of a general trend which persists in the market and is noticed that whenever the EPS increases the investors wants to sell off their stock for short term gains hence this can lead to abundant supply of stocks and in future the stock returns of company can decrease (Patell,1976).

The minimum value of EPS is 0.02 is considered very less compared to the general market trend, hence there can be a probability whereby the organizations could suffer loss and this can be due to the inefficient and ineffective management of the production capacity, and on the other hand the maximum value of EPS is 11.56 which is a good sign and shows that the companies effectively use their production capacities and have achieved a better Sales mix.

As seen in Table 1, the mean value of ROE is 0.1030 and the standard deviation is marginally low which is around 0.0585. The minimum value 0.0195 and maximum value 0.2265 indicates that the companies have earned 22.65% profit from the money invested by the shareholders in the stocks. Basically it is the total profit earned from the shareholder equity. This can be due to less risk found in the ROE of DFM and ADX for the thirty companies listed.

Mean debt equity ratio is 0.47 and the standard deviation or the variation is lower compared to the mean around 0.37. The maximum value of debt equity ratio is 1.55. From the point of view of the creditor a higher DE ratio is considered

risky as it shows that the company is generally funded on debt and no other investor has shown any interest in the company as much as the creditors. In the data collected out of 30 companies generally the banks have high Debt equity ratio and this is the general trend in the market. The minimum value of debt equity ratio is 0.027 that would be considered favorable since a low DE ratio indicates that the company is generally funded by the equity and is considered more stable and favorable.

Mean of dividend yield for the thirty companies is 0.05 whereas the standard deviation is lower that is 0.02. The maximum value for dividend yield is 9.92% which indicates that companies are giving high dividends to the shareholders, A dividend yield can give various interpretation about the company, According to Erickson & Maydew, (1998) A high dividend yield may mean that the company is trying to attract the investors to invest in the company or it may mean that the company is undervalued, Whereas the company which pay less dividends may be overvalued and indicate that company is putting effort to grow or increase its capital .

The descriptive analysis provides an insight into the general trends of the market in 2017 and also provides how each ratio explains the market condition of thirty companies in the UAE.

4.2 Correlation Analysis

This analysis is done to find the multi collinear relationship between the two variables and understand whether one variable has any impact on the other variable (Barndorff & Shephard, 2004). It is calculated as follows:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

N = No. of observations

Σxy = Sum of both dependent and independent variable

Σy = Sum of the dependent variable

Σx = Sum of the independent variable

Σx² = Sum of squared independent variable

Σy² = Sum of squared dependent variable

The multi-collinear relationship will be analyzed to see if the stock return dependent variable and the Earning per share, Price Earning, Dividend Yield, Return on Equity and Debt equity have correlation among themselves. For this the correlation table is constructed which is shown as below.

Table 2. Correlation analysis

	<i>SR</i>	<i>PE</i>	<i>EPS</i>	<i>ROE</i>	<i>DY</i>	<i>DEBT EQUITY</i>
SR	1					
PE	-0.0201	1				
EPS	0.1323	-0.2095	1			
ROE	-0.3493	-0.6762	0.1059	1		
DY	0.6549	-0.0845	-0.0530	-0.0978	1	
D/E	-0.2353	-0.2530	-0.0238	0.4343	-0.2960	1

Table 2 shows the correlation among all the variables. Price Earnings (PE) ratio has a very weak correlation with Stock Returns (SR) and hence gives an indication that Price Earnings ratio does not have multi-collinear relationship with the stock returns. The multicollinearity of Dividend Yield (DY) is the highest as compared to other variables a positive correlation of 0.65 is found between DY and Stock Returns. The general trend in the market is that ROE has positive relation with the stock returns. But for the year 2017 ROE has negative correlation and some literatures give strong evidence that ROE can have negative correlation in short term. But there is no major multicollinearity between the variables. According to Ratner (2009), a correlation of above 0.90 is considered of having a multi-collinear relationship.

Overall the ratios have shown weak correlation with stock returns. In simple words there are no issues with the

correlation analysis, Furthermore this analysis was done to explore the relationship between the two variables now the stock returns and the financial ratios will be tested with the multiple regression model which will give apt results and answer the main objectives, questions and hypothesis of the research since regression model is the most accurate and apt than correlation analysis.

4.3 Regression Analysis

Regression analysis is considered extremely important in the research which compares two variables and show if one variable has the predictable ability to predict another variable. “Regression analysis is usage of statistical technique for organizing as to which variable can indeed have an impact” (Gallo, 2015). The p value and t value will give the exact results to prove the hypothesis. These will be deeply explored in this analysis. The multiple regression model is calculated as follows

$$Y = a + b_1X_1 + b_2X_2 + B_3X_3 + \dots + B_tX_t + u$$

Y = The variable which is being predicted i.e. the Dependent Variable

X = The variable that is being used to predict i.e. The Independent variable

a = Intercept

b = Coefficient of X1 or the slope

u = The regression residual or the error.

Table 3. Regression Statistics

Multiple R	0.77216
R Square	0.59623
Adjusted R Square	0.51211
Standard Error	0.13499
Observations	30

Multiple R is the correlation coefficient it basically tells us if the linear relationship is strong or weak and the way two variables tend to move in relation to each other i.e. if value is 1 it implies that there is strong relationship and 0 implies that there is no relationship. Hence a multiple R of 77.21% for 30 companies means there is strong linear relationship.

R square represents the statistical measure of how much impact can an independent variable have on the dependent variable hence it can be seen that the 59.62% of movement of dependent variable (Stock price) is due to the independent variable (Ratios). But R square does not matter in case of this research since it uses multiple independent variable.

Hence in this case the Adjusted R square is important and this shows that 51.12% of the movement in dependent variable can be explained due to independent variable. The Adjusted R square variable percentage would be more if only dividend yield and Return on Equity would be taken into consideration since there are more variables hence the percentage comes down. Standard error is similar to the standard deviation of error u. No. of observations for this case were 30 that is the number of companies chosen from DFM and ADX.

Overall this model can be considered significant to test the hypothesis. The regression statistics give an indication that the regression analysis can act as a tool to verify if the independent variable Ratios can predict dependent variable stock return. Further tests would prove the same.

4.4 Significance Level

Every research has some parameters that has to be followed in order to prove the hypothesis. This research has the confidence level of 95% and the significance level of 0.05. That means α of 0.05 or below will be highly significant.

Table 4. Anova

	<i>Df</i>	<i>F</i>	<i>Significance F</i>
Regression	5	7.08786	0.00034*
Residual	24		
Total	29		

Anova test is used to find if the results of data analysis are significant or not (Satorra & Bentler, 2001). The df represents the degree of freedom. DF for regression is 5 that is 'k' it implies that there are five independent variables. The Residual DF is $N-k-1$ i.e. no. of observations minus 'k' minus 1 which gives $30-5-1=24$, the total DF represents the no. of observation – 1 i.e. $n-1$. $30-1 = 29$

"F ratio is the variation between the groups divided by the variation within the group the larger F value indicates more difference between the groups than within the group" Kim (2014). In this the F value is 7.08 which is not large and indicates that there are no large differences between the groups.

The p value of f statistics that is significance F is below 0.05 hence the model is highly statistically significant the p value of f is 0.00034 which is below 0.05 if calculated $1-0.00034*100=99.96\%$. The confidence level for this research was 95% the findings are well above that hence this model is highly statistically significant. The lower the significance f the higher is the probability that the output is not random or by chance. In this there is 0.03% chance that the output is gained by chance. Hence this model will be statistically significant.

Table 5. T- stat and P- value table

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-0.15743	0.15038	-1.04685	0.30560
PE	-0.00707	0.00490	-1.44214	0.16219
EPS	0.01582	0.01249	1.26652	0.21748
ROE	-1.77473	0.62922	-2.82051*	0.00947*
DY	5.70753	1.27410	4.47965*	0.00016*
D/E	0.06257	0.07862	0.79585	0.43392

The Coefficient in the table 5 shows that there is negative relation between PE and ROE that means when PE and ROE increases the stock price decreases and vice versa. Positive relation is seen between the EPS, DY and DE ratios.

5. Discussion

T-test or the Test statistics is an agreement which measures the relationship between the sample of the data and its null hypothesis. Since the stock market is very volatile and changes randomly from one data sample to another. The test statistics have enough information from the sample of data and enough power to reject the null hypothesis. When the test statistics value is too high the p value is very low, a high t statistics and low P value indicates to reject the null hypothesis. The higher the T value indicates that there is significant association between financial ratios as a predictor of stock return in the context of listed companies in UAE. Hence a high Test statistics value and lower p value <0.05 can be used to predict stock returns.

According to the data in table 5 it indicates that two hypothesis should be accepted. Return in equity is seen to have negative but very strong relationship with the stock return the t stat value and p value indicate that ROE can predict stock return in UAE. This indicates that increasing 1 unit of ROE would decrease 1.77 unit of stock return which can be considered a very significant decrease. The PE level of ROE is < 0.05 and it can be considered that ROE can predict stock returns, Dividend Yield is another variable which is seen have the highest Test statistics value and the lowest P value Hence another ratio can predict the stock returns in the context of UAE market where as other ratios like PE ratio, EPS and Debt equity have statistically very less or no relation with stock return. The significance level of 0.05 or below and confidence level of 95% is only fulfilled by the dividend yield and the Return on Equity ratio.

H1: There is significant association between Price Earnings ratio as a predictor of stock return in the context of listed companies in UAE. **Rejected**

H2: There is significant association between Return on Equity ratio as a predictor of stock return in the context of listed companies in UAE. **Accepted**

H3: There is significant association between Earning per share ratio as a predictor of stock return in the context of listed companies in UAE. **Rejected**

H4: There is significant association between Dividend Yield ratios as a predictor of stock return in the context of listed companies in UAE. **Accepted**

H5: There is significant association between Debt Equity ratios as a predictor of stock return in the context of listed companies in UAE. **Rejected**

6. Conclusion and Future Outlook

This research was conducted for examining whether financial ratios can predict the stock return for 30 companies listed in the Dubai Financial Market and the Abu Dhabi Stock Exchange. In this research five independent variables were used namely Price earnings ratio, Earning per Share, Dividend Yield, Debt Equity and Return on Equity and the dependent variable was the stock return.

The descriptive statistics, correlation analysis and regression model has proved to be successful and its empirical value has been proven strong in this research, these models can also be used as a strong tool to establish and find if the relationship or correlation exists between the two variables. This research also throws light on how the ratios can help investors predict the stock return for the next year.

Results give a clear indication that the dividend yield and Return on equity have huge impact on the stock returns in the UAE context. Hence the investors in UAE can rely on the Dividend Yield and the Return on Equity to predict the stock returns hence answering the overall question of the research as to what indication does financial ratio give and can investors in UAE rely on financial ratios? The answer is yes investors can rely on dividend yield and Return on equity since the confidence level is more than 95% and significance level is below 0.05 which gives clear indication that Return on equity and Dividend Yield can be used as a predictor of stock returns in the UAE.

References

- Ahsan, Afm. (2012). Can Return on equity be used to predict portfolio performance? *Economics, Management, and Financial Markets*, 7, 132-148.
- Amy Gallo. (2015). A Refresher on Regression Analysis. [Online] Available at: <https://hbr.org/2015/11/a-refresher-on-regression-analysis>. [Accessed 28 May 2018]
- Anwaar, M. (2016). Impact of Firms Performance on Stock Returns (Evidence from Listed Companies of FTSE-100 Index London, UK). *Global Journal of Management and Business Research*, 18(6), 23-43
- Arkan T. (2016). The Importance of Financial Ratios in Predicting Stock Price Trends: A Case Study in Emerging Markets. *Finanse, Rynki Finansowe, Ubezpieczenia*, 1(79), 13–26. <https://doi.org/10.18276/frfu.2016.79-01>
- Ball, R & Brown, P 2014, 'Ball & Brown. (1968). *A Retrospective*' *Accounting Review*, 89(1), 1-26, Business Source premier, EBSCO host, viewed 21 May 2018. <https://doi.org/10.2308/accr-50604>
- Barber, B.M. and Lyon, J.D. (1997). Detecting long-run abnormal stock returns: The empirical power and specification of test statistics to prove hypothesis. *Journal of financial economics*, 43(3), 341-372. [https://doi.org/10.1016/S0304-405X\(96\)00890-2](https://doi.org/10.1016/S0304-405X(96)00890-2)
- Barndorff, O.E. & Shephard, N., (2004). Econometric analysis of realized covariation: High frequency based on the covariance and its impact, regression, and correlation in financial economics. *Econometrics*, 72(3), pp.885-925. <https://doi.org/10.1111/j.1468-0262.2004.00515.x>
- Beaver, William H. (1996). Financial Ratios as Predictors of Failure. *Journal of Accounting Research*, 4, 71-111. <http://www.jstor.org.ezproxy1.hw.ac.uk/stable/pdf/2490171.pdf?refreqid=excelsior%3A503aa6917b9c9f5fdedf20ba1216c782>
- C. Barbee, William & Mukherji, Sandip & A. Raines, Gary. (1996). Do Sales–Price and Debt–Equity Explain Stock Returns Better than Book–Market and Firm Size? *Financial Analysts Journal*, 52, 56-60. <https://doi.org/10.2469/faj.v52.n2.1980>
- Campbell, J.Y. & Shiller, R.J. (2001). *Valuation ratios and the long-run stock market outlook: an update* (No. w8221). National bureau of economic research. <https://doi.org/10.3386/w8221>
- Carl K, Chen. (2000). Predictors of Japanese Stock exchange, *Journal Of Accounting & Finance*, 15(3), 321-331, Business Source Premier, EBSCO host, viewed 22 May 2018.
- Chang, Hsu-Ling, Yahn-Shir Chen, Chi-Wei Su, & Ya-Wen Chang. (2008). The Relationship between Stock Price and EPS: Evidence Based on Taiwan Panel Data. *Economics Bulletin*, 3(30), 1-12.
- Cochrane, J. H. (1997). Where is the market going? Uncertain facts and novel theories. NBER working paper series. <https://doi.org/10.3386/w6207>
- Erickson & Maydew. (1998). Dividend yield and how does it help an investor to find if there is any impact of high dividend yield on the stocks return. *Journal of Accounting review*, 3, 435-458.

- Fama. (1970). Variables used for predicting the stock returns in short and long run. *International Journal of Accountancy and Finance*, 3(6), 245-254.
- Ferris, Erin. (2018). Dividend Taxes and Stock Volatility. *International Tax and Public Finance*, 25(2), 377–403. <https://doi.org/10.1007/s10797-017-9455-2>
- Fun, L.P. & Basana, S.R. (2011). *Price Earnings Ratio and Stock Return Analysis (Evidence from Liquidity 45 Stocks Listed in Indonesia Stock Exchange)* (Doctoral dissertation, Petra Christian University). http://repository.petra.ac.id/17214/1/Publikasi1_02052_170.pdf
- Glezakos, Michalis & Mylonakis, John & Kafouros, Charalampos. (2012). The Impact of Accounting Information on Stock Prices: Evidence from the Athens Stock Exchange. *International Journal of Economics and Finance*, 20(2), 24-55. <https://doi.org/10.5539/ijef.v4n2p56>
- Horrigan, James (1995), “The Determination of Long-Term Credit Standing with Financial Ratios.” *Journal of International Accounting*, 4, pp. 44-62. <https://doi.org/10.2307/2490168>
- Jain. (2016). What a PE ratio tells about market direction, Economic Times, Accessed [online] Economic Times: <https://economictimes.indiatimes.com/markets/expert-view/what-the-pe-ratio-tells-about-market-direction/articleshow/51722191.cms> Accessed on 21st May 2018.
- Jing, L. & Ohlson, J. (2000). The Feltham-Ohlson (1995) Model: Empirical Implications. *Journal Of Accounting, Auditing & Finance*, 15(3), 321-331, Business Source Premier, EBSCO host, viewed 21 May 2018. <https://doi.org/10.1177/0148558X0001500309>
- Kaboub, F. (2008). Positivist paradigm. *Encyclopaedia of Counselling and theoretical research Framework*, 2, 343.
- Karami, & Talaei. (2013). Predictability of capital market returns using financial ratios in the firms which are listed in Tehran Stock Exchange. *International Research Journal of Applied and Basic Sciences*, 5(3), pp.360-372.
- Kelly, S., McClean, J. & McNamara, R. (2008). The low P/E effect and abnormal returns for Australian industrial firms. <https://doi.org/10.2139/ssrn.1254643>
- Kendall, M. G., & A. Bradford Hill. (1953). The Analysis of Economic Time-Series-Part I: Prices. *Journal of the Royal Statistical Society. Series A (General)*, 116(1), 11–34. JSTOR, <https://doi.org/10.2307/2980947>
- Khan, M.B., Gul, S., Rehman, S.U., Razaq, N. & Kamran, A. (2012). Financial Ratios and Stock Return Predictability (Evidence from Pakistan). *Research Journal of Finance and Accounting*, 3(10), 1-6.
- Kim, H.Y. (2014). Analysis of variance (ANOVA) comparing means of more than two groups. *Restorative dentistry & endodontics*, 39(1), 74-77. <https://doi.org/10.5395/rde.2014.39.1.74>
- Lasher, (1997). Financial ratios as an indicator for future profitability of the firm. *Journal of Accounting, auditing & Finance*, 13(2), 312-319, EBSCO host, viewed 23 May 2018
- Long, H., 2014. An empirical review of research methodologies and methods in creativity studies (2003–2012). *Creativity Research Journal*, 26(4), 427-438. <https://doi.org/10.1080/10400419.2014.961781>
- Menike, M.G.P.D. & Prabath, U.S. (2014). The impact of accounting variables on stock price: Evidence from the Colombo stock exchange, Sri Lanka. *International Journal of Business and Management*, 9(5), 125. <https://doi.org/10.5539/ijbm.v9n5p125>
- Muller, C., & Ward, M. (2013). Style-Based Effects on the Johannesburg Stock Exchange: A Graphical Time-Series Approach. *Investment Analyst Journal*, 77, 1-16. <https://doi.org/10.1080/10293523.2013.11082552>
- Patell, J.M. (1976) Corporate and long term forecasting of earnings per share (EPS) and share return and price behavior both in short and in the long run: Empirical test. *Journal of accounting research*, 2, 246-276. <https://doi.org/10.2307/2490543>
- Phung Thai Minh Trang, Nguyen Minh Tuan & Nguyen Huu Tho. (2017). The Role of Financial Ratios in the Variance of Stock Trading Volume in Emerging Stock Markets. *Journal of Asia-Pacific Business*, 18(3), 180-191. <https://doi.org/10.1080/10599231.2017.1346408>
- Ping-fu, L. and Kwai-ye, C.H.O., 2016. Relationships Between Stock Returns and Corporate Financial Ratios Based on a Statistical Analysis of Corporate Data from the Hong Kong Stock Market. *Public Finance Quarterly*, 61(1), 110-123.

- Ratner, B., 2009. The correlation coefficient: Its values range between+ 1/- 1, or do they? *Journal of targeting, measurement and analysis for marketing*, 17(2), 139-142. <https://doi.org/10.1057/jt.2009.5>
- Satorra, A. and Bentler, P.M., (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, 66(4), 507-514. <https://doi.org/10.1007/BF02296192>
- Sattar, Abdul & Jabbar, Abdul & Al-Kubaisi, Abdulsattar & Hussein, Oday & Researcher, Afaneh & Hussain, Abdalla & Assuli, Al. (2017). Analysis of the Role of Fundamental Financial Ratios in Predicting the Stock Returns for Commercial Banks Listed on Amman Stock Exchange. *Journal of Finance and Accounting*, 8(1), 1-16.
- Sudipta Basu, (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics*, 24(1), 3-37. [https://doi.org/10.1016/S0165-4101\(97\)00014-1](https://doi.org/10.1016/S0165-4101(97)00014-1)
- Taani, K., 2011. The effect of financial ratios, firm size and cash flows from operating activities on earnings per share :(an applied study: on Jordanian industrial sector). *International journal of social sciences and humanity studies*, 3(1), 197-205.
- Turk, Adam, (2006)"The Predictive Nature of Financial Ratios." *The Park Place Economist*, 14, 96-104. <https://www.iwu.edu/economics/PPE14/Turk.pdf>
- Wilkie, A.D., 1993. Can dividend yields predict share price changes? In *Transactions of the 3rd International AFIR Colloquium, Rome, 1*, 335-347.
- Zeytinoglu, E., Akarim, Y. D., & Çelik, S. (2012). The impact of market-based ratios on stock returns: The evidence from insurance sector in Turkey. *International Research Journal of Finance and Economics*, 84, 41-48.

Annexure 1

Sr. No.	Company	Stock return	PE	EPS	ROE	DY	Debt Equity
1	Air Arabia	0.2982	8.74	0.14	0.1171	0.0840	0.6633
2	Aramex PJSC	-0.2214	12.49	0.3	0.1888	0.0428	0.2311
3	Arabtech Holding	-0.3931	7.21	0.1	0.2222	0.0106	1.5501
4	Damac Properties	-0.1638	5.79	0.46	0.1697	0.0664	0.3444
5	Emaar Properties	-0.2491	6.31	0.8	0.1295	0.0292	0.4609
6	Gulf Cement Company	0.0330	26.07	0.05	0.0253	0.0851	0.0340
7	Fujairah Cement Industries	0.2115	13.34	0.1	0.0303	0.0500	0.5378
8	RAK Cmt & Cons	-0.1585	16.45	0.06	0.0402	0.0490	0.2733
9	Umm Al Qaiwain Cement Industries Co	0.0456	24.91	0.04	0.0217	0.0700	0.1620
10	RAK Ceramics	0.1469	7.97	0.3	0.1117	0.0992	0.7953
11	Arkan Building Materials Co	-0.1029	34.12	0.02	0.0195	0.0456	0.4906
12	Emaar Malls	-0.1574	12.8	0.16	0.1252	0.0485	0.4322
13	Ad Shipbldg Co	-0.1948	4.07	0.49	0.2265	0.0754	0.2062
14	Aldar Properties	-0.0363	8.06	0.25	0.0913	0.0577	0.2451
15	RAK Properties	0.1764	7.25	0.1	0.0466	0.0938	0.1489
16	Dubai Insurance Company	0.0940	10.23	0.37	0.0707	0.0735	0.0864
17	Oman Insurance company	0.0375	8.47	0.23	0.0535	0.0513	0.1181
18	Buhaira Nat Insurance	0.0455	10.53	0.21	0.0805	0.0455	0.6626
19	Ad National Ins Company	0.2162	7.75	0.61	0.1313	0.0735	0.0278
20	Al Sagr National insurance co	-0.5549	22.36	0.09	0.0451	0.0253	0.2756
21	Mashreq Bank PSC	0.1053	6.75	11.56	0.1123	0.0500	0.3527
22	Emirates NBD PJSC	-0.2492	6.59	1.4	0.1495	0.0408	0.7532
23	Dubai Islamic Bank	-0.1000	6.67	0.69	0.1710	0.0835	0.5231
24	Commercial Bank of Dubai	-0.0722	10	0.36	0.1346	0.0438	0.7285
25	National Bank of Fujairah	-0.1194	9.36	0.27	0.0906	0.0263	0.2685
26	Union National Bank	-0.2356	6.61	0.57	0.0845	0.0542	0.4368
27	Abu Dhabi Commercial Bank	-0.0324	8.22	0.8	0.1423	0.0630	1.5028
28	Foodco Holding PJSC	-0.3022	8.63	0.46	0.1345	0.0419	0.8141
29	Dana Gas	0.0650	23.41	0.04	0.0303	0.0472	0.2506
30	National Central Cooling company	-0.0564	11	0.15	0.0937	0.0468	0.7332