The Impact of EPS & DPS on the stock price: Evidence from The Saudi Stock Exchange

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Abstract:

This paper intends to inspect the extent to which stock price [SP] is influenced by the volatility of earning per share [EPS] and dividends per share [DPS] of Saudi Stock Exchange listed companies [Tadawul], during 2015 – 2018. Multiple regression models were built to identify the influential role of [EPS] and [DPS] on [SP]. The outcome of the built models mirrors a significantly influential role of the two factors earning per share and dividend per share on the stock price during the period under consideration. Also, the models reveal that during the overall period under study earning per share has a dominant influence on stock price, contrary to the dividend per share which was dominant for only two years, suggesting investors' tendency toward using earning per share as a predictor, rather than dividend per share when deciding on their options for investing in Tadawul listed companies stocks.

Key Words: Earning per share, Dividend per share, Stock price, Tadawul, Saudi Stock Exchange

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INTRODUCTION

It is a major concern for scholars, as well, as for policymakers, to identify the extent to which earning per share and dividend per share are stimulus for stocks prices when it comes to decide upon investing in stocks markets, as they are much used as predictors and measurement of companies' performance and financial functionality. However, it has been found the two variables provide arguable and unbalance results of financial performance in different contexts. As it is a commonly practiced investment decision by investors that they are of high interest in EPS and DPS as predictors and measurement the financial strength and wellbeing of the company, and its stock potential gains, as well. Consequently, companies of higher per share earnings and dividends represent an appealing to potential investors to devotedly invest in stocks of these companies, whereas companies with low earnings and dividends per share tend to be of a few propensities to attract new investors.

1-Problem statement:

A number of factors may come into the interplay of increasing or decreasing a stock price, given the complexity of identifying these factors and their controlling influence, as they're themselves are resultants of other diverse factors and process, making the process of determining a stock price by default more complex. However, the earning per share (EPS) and dividends per share (DPS) are the commonly regarded the prime factors influencing stock price volatility , even though they're arguably subject to many debates. For instance, some scholars are having a precept that dividends per share should be the measuring factor of the firm's performance, as it resembles the actual monetary income received by the investors. Whereas, some other deliberate that a stock profitability should be the principal measure as it reveals the income generated from investing in common stocks. Accordingly, this paper seeks to shed a light on the influential impact of the earnings per share and dividends per share on stock price in Saudi Stocks Market, as an actionable study from real transactions, and attempt to answer the following questions:

1- To what extent do EPS and DPS influence stock price?
2- To what extent does EPS has an influential impact on stock price?
3- To what extent does DPS has an influential impact on stock price?

2- Hypothesis of the Study:

1/ The 1st Hypothesis:

H0: EPS and DPS have no a significant influential impact on stock price.

H1: EPS and DPS have a significant influential impact on stock price.

2/ The 2nd Hypothesis:

H0: EPS has no a significant influential impact on stock price.

H1: EPS has a significant influential impact on stock price.

3/ The 3rd Hypothesis:

      H0:   DPS has no a significant influential impact on stock price.

      H1:   DPS has a significant influential impact on stock price.

3- Data:

The variables in this study are one dependent variable – viz., the stock price (SP), which changes according to the change of two influential variables – viz., earnings per share (EPS) and dividends per share (DPS). The data was extracted from the trading annual information available for the period 2015 up to 2018. The price stock stated here is the closing price.

4- The study sample:

The population of this study comprises all of the listed companies in the Saudi Stocks Exchange (Tadawul), from which a sample was drawn on the basis of the following parameters:

1- Regularity of the stock trading during the identified timeframe of the study.
2- Focus is given to regularly profiting companies and consistently distribute dividends to their investors during the timeframe of the study (an exception is those companies do not pay dividends).
3- Availability of the due financial statements for the purpose of this study (an exception is the companies that do not disclose financial data, or their data are missed).

These conditions were applied to the study sample which includes 153 companies from all the sectors available in the stocks exchange.

2. Review of Related Literature:

Ahmed (2018) sought to explore the factors affecting Pakistani's stocks prices during 2005 – 2014, using data of twelve textile companies, and found out a positive influence of both earnings per share and dividends per on stocks price. As well, he observed that the stock price positively correlates with both earnings and dividends per share. Laurens (2018) assessed the impact that earnings per share (EPS), dividends per share (DPS), and the price-to-book value (PBV) have on the stock price and its return in Indonesia, using a quantitative approach to build linear multiple regression models for a data extracted from the Indonesian Capital Market Guide covering the period from 2005 to 2008. The results of this study also indicate that dividends per share do not significantly influence the stock price, however it directly impact the stock return, whereas earnings per share directly affect both the stock price and its return. Further the price-to-book value significantly influence the stock price, but it has no effect on the stock return.

A recent study (2018) carried-out by Alawneh, signals a significant positive influential role of dividends paid out to the market capitalization of listed companies in Amman Stocks Exchange, which was also found to be positively correlated to the post-taxes net income. It was concluded that no statistical evidences are perceived between the stock

and its market value, implying that investor are more concerned with the dividends and the after taxes net income, and despite that they do not consider the stock profitability is a vital elemnt when they seek investment in securities. In the contrary, Velankar, Chandani and Ahuja (2017) found out – whilst investigating the hypothestical premise that earnings per share and dividends per share significantly influence stock price for Indian publicly owned banks stocks – that public banks earnings and dividends per share both have a greater influential impact on the stocks prices.

Additionally, in a study on 5 Indian companies from different sectors and are listed in the National Stocks Exchange, Jain and Kanchan (2017) point out that share prices of the majority of the these companies are impinged onto the change in the independents variables used in the study, among them is EPS. As well, Majanga (2015) studied 13 listed local companies in Malawi during 2008 up to 2014, and found that a strong direct relationship between the stocks prices of these companies and their profitability.

Further, a study aiming to address the influential factors on stock prices, conducted by (Adebisi and Lawal, 2015), reveals that the earnings, dividends and the book value per share, as well as, the company size have a greater strong influence on the company's stock price.

Beside that Islam, et. al., (2014) using a data of 22 banks and 110 companies listed in the stock exchange attempted to highlight the relationship between the earning per share its price. The undoubted resulted outcome is effect of earnings per share on the movement in stock price, however, they claim that it is not – as it was previously expecting – in that same manner of a rapid and strong movement, and they solidly state the existence of other external factors, which are of economic nature, influence the movement of stocks prices, and as such, earnings per share should not be the only prime factor to be concerned with to evaluate the stock; and the effects of the other microeconomic and macroeconomic factors on the stocks prices and valuation should be considered, as well.

Additionally, Hemadivya and Rama (2013) attempted to spotlight on the relationship between the earnings per share and the price of the stock, as well as, the effect of the former on the later, by studying the overall stock exchange listed companies at the level of three sectors. And they found the earnings per share to have somewhat effect on the stock price.

As well, Almumani (2014) sought to explore the determining factors of stock price, using a data of bank companies listed in Amman Stock Exchange during the period 2005 up to 2011. The study states that dividend per share, its profitability, its book value, and prices gains are the major determinants of stocks prices, and they concluded that share dividends, its earnings, its book value, and price gains can be used to predict the stock price.

Lastly, in a quest to identifty the influential role of dividends per share and its price in factoring earnings per share, a study carried-out by Ebrahimi and Chandani in (2011) in

Tehran Stock Exchange between 2002 and 2008, arrived at the finding that a clear relationship between the stock price and its dividends, as well, as its earnings during the period under study.

Results of statistical analysis:

For the purpose of data analysis, ver. 23 of the statistical package for social sciences was employed to test the relationship between the variables of the study (one dependent variable – stock price restraining to two controlling variables – earnings per share and the dividends per share) for a data extracted from Tadawal listed companies within the timeframe 2015 – 2018.

Linear multiple regression models were built for each year under the consideration, and the coefficients of determination were extracted, as well. The following the findings arrived at by the researchers:

4.1 Analysis of (2015) Year Results:

Table (1)

Model summary of Multiple linear Regression (R square)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.546a	.298	.289	23.983327

Source: Results of analysis by SPSS

Table (2)

ANOVA for Multiple linear Regression

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	37087.019	2	18543.509	32.238	.000b
Residual	87430.396	152	575.200		
Total	124517.415	154			

Source: Results of analysis by SPSS

For the year 2015, the built multiple regression model reveals a very significant statistical difference in the stock price attributed to earnings and dividends per share, collectively, as the calculated F [32.24] statistic is very high at 0.000 level of significance, and the value of coefficient of determination indicates that nearly 30% [R2 = 0.298] of the change in the stock price during 2015 can be attributable to these two factors.

Table (3)

Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	26.832	2.899		9.255	.000
Companies' Dividends per share (DPS)	9.840	1.352	.495	7.276	.000
Earnings per share (EPS)	1.005	.300	.228	3.349	.001

Source: Results of analysis by SPSS

In the above table (3), the model coefficients show that each controlling variable [the earning per share and the dividends per share – taken separately – significantly affects the stock price, such that the EPS coefficient amounted to 1.01 with a relative great t-statistic [9.255] at 0.000 level of significance. As well, the DPS coefficient amounted to 9.84, with a relatively great t-statistic value [7.276] with p. value 0.000, below the 0.05 level of significance.

4.2 Results of analysis year (2016):

Table (4)

Model summary of Multiple linear Regression (R square)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.697[a]	.485	.479	21.71485

Source: Results of analysis by SPSS

Table (5)

ANOVA table of Multiple linear Regression

Model	Sum of Squares	df	Mean Square	F	Sig.

Regression	68013.213	2	34006.607	72.119	.000b
Residual	72144.830	153	471.535		
Total	140158.043	155			

Source: Results of analysis by SPSS

For the year 2016, the built multiple regression model, also shows a very significant statistical difference in the stock price that can be attributed to earnings and dividends per share, collectively, as the calculated F statistic [72.119] is considerably high at 0.000 level of significance, and the value of coefficient of determination hints at that 49% [R^2 = 0.485] of the change in the stock price during 2016 is preserved to be attributable to these two factors, as well.

Table

(6) Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	31.60	2.082		15.18	.000
Earnings per share (EPS)	5.218	.843	.479	6.191	.000
Companies' Dividends per share (DPS)	5.277	1.464	.279	3.604	.000

Source: Results of analysis by SPSS

With reference to table (6) above, the model coefficients illustrate that each of the controlling variables [the earning per share and the dividends per share] lodged individually – significantly affects the stock price, as it is found that EPS coefficient amounted to 5.22 with a comparatively great t-statistic 6.191 at 0.000 level of significance. Also, the DPS coefficient amounted to 5.28, with a relatively moderate t-statistic value 3.604 with p. value 0.000, below the 0.05 level of significance.

4.3 Analysis of (2017) Year Results

Table (7)

Model summary of Multiple linear Regression (R square)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.657a	.432	.422	27.77375

Source: Results of analysis by SPSS

Table (8)

ANOVA table of Multiple linear Regression

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	65097.637	2	32548.818	42.195	.000b
Residual	85623.341	111	771.381		
Total	150720.978	113			

Source: Results of analysis by SPSS

For the year 2017, the constructed multiple regression model, incredibly exhibits a significant statistical difference in the stock price that preserved to ascribed to earnings and dividends per share, jointly. That the calculated F statistic [42.195] is notably high at 0.000 level of significance, and the value of coefficient of determination accounts for 43% [$R2 = 0.432$] of the change in the stock price during 2017 is – excessively – accredited to these two factors.

Table (9)

Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	29.789	3.282		9.077	.000
EPSSAR	7.348	1.306	.538	5.627	.000
DPS	3.723	2.189	.163	1.701	.092

Source: Results of analysis by SPSS

Referring to table (9) above, the coefficients of the multiple regression model reveals that the controlling variables [the earning per share and the dividends per share] taken on case by case basis – significantly affects the stock price in the case of earning per share (EPS), as it is found that EPS coefficient amounted to 7.34 with a comparatively great t-statistic 5.627 with a p. value below the 0.05 level of significance. In the contrary, DPS coefficient amounted to 3.28, with a relatively small t-statistic value 1.701 with p. value above the 0.05 level of significance amounted to 0.092.

4.4 Analysis of (2018) Year Results:

Table (10)

Model summary of Multiple linear Regression (R square)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721a	.519	.513	19.182673

Source: Results of analysis by SPSS

Table (11)

ANOVA table of Multiple linear Regression

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	63242.868	2	31621.434	85.934	.000b
Residual	58508.014	159	367.975		
Total	121750.882	161			

Source: Results of analysis by SPSS

For the year 2018, the generated multiple regression model, also a remarkable significant statistical difference in the stock price mutually attributable to earnings per share and dividends per share, such that the computed F statistic [85.934] is markedly higher at 0.000 level of significance, and the value of coefficient of determination accounts for 52% [$R2 = 0.519$] of the change in the stock price during 2018 is accredited to these two factors.

Table (12)

Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	19.997	1.896		10.544	.000
EPSSAR	7.910	.845	.672	9.366	.000
DPS	1.420	1.398	.073	1.016	.311

Source: Results of analysis by SPSS

Looking up into table (12) above, the coefficients of the multiple regression model indicates that the earning per share (EPS) significantly influence the stock price, as it is found that EPS coefficient amounted to 7.91 with a fairly great t-statistic 9.366 with a p. value below the 0.05 level of significance. Reversely, the coefficient of the dividends per share (DPS) amounted to 1.42, with a relatively small t-statistic value 1.016 with p. value above the 0.05 level of significance amounted to 0.311.

4.5 Discussion and Hypothesis testing:

Bearing in mind the reviewed previous works done by scholars, and the outcomes of this study, the following paragraphs deals with the testing the hypothetical statements [section 2.1], and finalizing by discussing the findings reached at.

Testing Hypothesis (1)

-There is a significant impact of earnings per share (EPS) and dividends per share (DPS) on stock price.

With reference to tables (2) and (5) that are evidently associating the stock price to the earnings per share and the dividends per share, as well as, tables (8) and (11), which provide a substantiated prove for the influential impact the two variables have on the stock price, it becomes inevitable to reject the null hypothesis and accept the alternate hypothesis stating the statistically significant influence that earnings per share (EPS) and dividends per share (DPS) has on the stock price during the time frame of the data under consideration. And therefore, it supports the findings arrived at by (Ahmed, 2018), (Kai and Abd Rahamn, 2018), (Velankar, et. al., 2017), (Enow and Brijlal, 2016), (Almumani, 2014), (Firasana, 2012), (Ebrahimi and Chadegani, 2011) and (Kalama, 2009).

H1: EPS and DPS have a significant influential impact on stock price.

Testing Hypothesis (2)

- There is a significant impact of earnings per share (EPS) on stock price

With reference to tables (3), (6) and (9) stating a very significant relationship between the earnings per share and the price of the stock, added to the tables (9) and (12) highlighting the significantly simulating role of earnings per share in designating stocks price in the Saudi stock exchange, it is also highly inevitable to reject the null hypothesized statement and accept the alternate one that earnings per share – taken separately – significantly influence the stock price during the period under study. As well, this finding proves those previously arrived at by (Utami and Darmawan, 2019), (Rosikah, et. al., 2018), (Laurens, 2018), (Enow and Brijlal, 2016), (Tache, 2016), (Nalurita, 2016), (Inyiama, 2015) and (Serife, 2014).

H1: EPS has a significant influential impact on stock price.

Testing Hypothesis (3)

- There is a significant impact of dividend per share (DPS) on stock price.

Referring to tables (3) and (6) relating significantly stock price to dividends per share, in addition to tables (9) and (12) showing the influential bearing it has on designating the stock price, it is unavoidable to reject the nullifying hypothetical statement and put up with its alternate that dividends per share – taken separately – significantly influence the price of the stock. However this holds only for the years 2015 and 2016, and accordingly, in this case the null hypothesis for (2017 and 2018) should be accepted. Likewise, this findings also stands as a prove for previously arrived at findings, like those of (Ghimire and Mishra, 2018), (Alawneh, 2018), Garba, 2014) and (Matthew, et. al., 2014).

H1: DPS has a significant influential impact on stock price.

5-Conclusion:

The study deals with the influence of the earnings per share and the dividends per share on the stocks prices of the listed companies of the Saudi Stocks Market, by examining

153 company during the period between 2015 – 2018. Based on the previously staged analysis, it can be inferred that a statistically significant positive relationship does exist between the earnings per share and dividends per share and the price of the stocks of the companies listed in the Saudi Stock Exchange 'Tadawul' at 0.05 significance level.

Also, the analysis outcomes indicates that earnings per share is – to a great extent – more positively and influentially on the stock price than the dividends per share, which was found to have such an influence for two out of the four years under study. Also it is clearly shown that the variation in the stocks prices for this period (2015 – 2018) is presumably attributable the earnings per share and the dividends per share, implying that investors in the Saudi Stocks Exchange are more interested in earnings per share than the dividend per share, as it is considered – generally speaking – that the earnings per share one of the prime factors determining stock price. However, future scholars may seek to study the same factors, albeit, within a longer timeframe, in addition to the possibility for them to include other important internal and external factors, that might point out different and new features associated to the relationship of stock price, earnings per share and the dividends per share.

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