The Impact of Economic Value Added & Return on Investment on the Changes in Stock Market's Value (Analytical Study: ASE: 2006-2015)

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Abstract

This study aims to determine the effect of EVA and ROI and which is better able to explain the change in Stock market's value in the companies listed in (ASE) (2006-2015), the researcher addresses a random sample consisting of (46) Company, and uses regression model, which connects the dependent and independent variables.

The results of the study shows that the return on investment (ROI) is better than (EVA) to interpret the changes in Stock market's value, where the coefficient of determination (R^2) for the ROI is (22.5%), while the R^2 for EVA Only 1.3%.

This study also recommends the need to look for additional factors that would explain the changes in stock market's value such as: the degree of leverage, systemic risks, and macroeconomic indicators such as: (interest rates and inflation).

Keywords: Economic Value Added, Return on Investment, Financial Performance, Jordanian Companies, Amman Stock Exchange

1. Introduction

With the growing role of financial management and increasing the corporate awareness of the objectives that to be achieved, and in the light of which the success of the management is evaluated, the shift of financial thought that focuses on maximizing the market's value of the owners' wealth has become one of the most important strategic objectives that financial management seeks to achieve and maintain. As, focusing on maximizing the market's value of the company through maximizing the market's value per share drives management to take more effective strategic actions that focus on several sub-goals to reach a long-term strategic objective that reflects the risks to the business, rather than focusing on operational performance and maximize profit in the short term.

In the light of this, the importance of assessing economic and financial performance of companies and the use of traditional financial performance measures that depend on the on historical financial and accounting information, such as: return on investment. And recent financial performance's measurements, such as: economic value added that is used to determine the extent to which the strategic goals of the company are achieved.

The objective of this study is to test the ability of these measures to explain the changes in the market's value of the shares of the companies that are listed on the ASE during the period 2006-2015, in view of the importance of these companies in contributing to the achievement of Jordanian economic advancement. However, the theoretical debate remains to prove which measures are better able to interpret the changes in the market's value of firms, are the traditional measures, such as: ROI or the recent measures such as: EVA.

1.1 Problem

In Jordan, most companies rely more on accounting in measuring performance through data and information derived from financial reports, and depends less on the indicators of modern performance measurement, that have been proved to be affective, when applied by (Stern Stewart & Co.) such as: EVA and MVA and which take into account the value.

Based on the above, the researcher seeks to find the impact of economic value added EVA, and the impact on return on investment (ROI) on changes in the market's value of shares of companies that are listed on the ASE during the period 2006-2015). The problem of the study is to answer the following questions:

1)   Is there an impact of EVA as one of the recent performance's measures on changes in the market's value of stock?

2)   Is there an impact of ROI as one of the traditional performance's measures on changes in the market's value of stock?

3)   Can these standards be applied on public shareholding companies that are listed on the ASE?

1.2 Importance

Due to the importance of the economic sectors in promoting the strength of the national economy, especially the Jordanian public shareholding companies that are listed on Amman Stock Exchange, this study came to draw the attention of the managers of these companies to the most important measures of performance that are used to measure their companies' financial performance in a manner that helps management to achieve an increase and growth in the wealth of the owners. In addition to this, the possibility of adopting a more advanced approach to improve the financial performance that helps in planning to achieve strategic objectives, which in its turn maximizes the wealth of shareholders as well.

1.3 Objective

This study aims at identifying the modern performance measures, how they can be calculated and their applicability to the public shareholding companies that are listed on the ASE, and comparing them with the traditional performance measures that are used by most companies. The study also aims at analyzing the mechanism by which the concept of EVA can be applied to the listed companies on ASE according to modern financial theories, and aims at applying the traditional measures and the explanatory ability of each measure to interpret the changes in the market's value of listed Jordanian public shareholding companies and to measure their financial performance for the period 2006-2015.

2. Literature Reviews

2.1 Stock market's value

In economic thought, value is known as the core feature of a particular good or service, and evaluated by those who uses it or keep it, (Bravard & Bruno, 1969).

Classics first defined the price of the stock exchange as: the price of the listed securities during the stock exchange's session and recorded after the session. The market's value of the share is to be the price that is determined in the market according to the daily trading, and thus the market's value of the stocks changes depending on the market's conditions. Under the efficient market, it is assumed that the market's value of the stock is to be equal to its real value, which is rare because of the lack of efficiency and the normal profit. (Al-Shabib, 2015).

There are a number of factors that affect the share price in the market, some of which are related to the capital market (such as price trends, the nature of financial markets, their degree of development and breadth, the nature of market participants, and the degree of the efficiency of markets, etc.), as well as factors related to the general economic situation, macroeconomic indicators and the nature of the economic systems in addition to economic conditions and political conditions (Gitman, & Zutter, 2012).

The market's value of the stocks reflects the level of profitably, as the market's value of the stock increases according to the companies' ability of achieving profits, and decreases according to losses. The increase in the market's value reflects the desire of the shareholders and their strategic choice to maximize their wealth (Al -Zubaidi, 2012).

The market's value of the stock is an indicator of the companies' ability to create the value through the right operating options and the appropriate strategies. This shows the differences in the value of the stocks in the financial markets based on their financial and operational performance (Mocciaro, et al, 2012).

All recent financial theories and analysis have agreed that the main goal of business is to maximize the market's value of the stocks and maximizing the wealth of the owners in order to achieve the optimum economic prosperity and social value. (Weston & Brigham, 1993).

In Jordan, the market's value can be extracted through the ASE website by taking the closing prices during the study period or through the financial statements along with the market's information, and that can be calculated

by dividing the market's value on the number of ordinary shares.

The researcher relied on the closing prices during the study period from the ASE website.

2.2 Economic Value Added (EVA)

The EVA is a measure that has mediated economic and accounting standards in performance assessments. EVA relies on value in assessing the financial performance of companies. The value added concept is common in the Classical economic thought, but the current interest in this concept is due to the US consulting firm: Stern Stewart, where it presented a new model of performance appraisal in the late 1980s (Sharqawi, 2006) (Al Mamun & Abu Mansor, 2012).

The economic value added was defined by Stern Stewart as a measure of financial achievement to estimate real profit, which is related to the shareholder's wealth over time, which is the difference between net operating profit after tax and Weighted Average Cost of Capital WACC. (Jiambalov, 2007).

The Economic value added index is a general indicator of the external performance of the entity, ensuring investors greater returns on their investments. It also reflects the cumulative measure of the return on equity, which reflects the quality of the financial and operational management decisions of companies over the long term, because the positive value reflects maximizing the owners' wealth. Every company achieves profits is a profitable company, but not able to create value (Falateh & Al-Khayal, 2009) (Hal, 2014).

Economic value added, which can be measured in the monetary unit, is the addition of the value, which has been tested in the financial performance assessment, by valuing the entity in monetary units rather than in percentages as used in the return on investment calculations (Copeland et al., 2000).

In one of the studies, senior vice president of Stern Stewart & Co. noted that, among all performance measures used, there is no more accurate than the economic value added. Companies that use the EVA as an indicator and a framework for the financial management have outperformed the other similar competitive companies that use other measurement (Ehrbar, 1998).

The value-added model focuses on important aspects in the companies, namely the operational aspect through the operating profit or profit of the operations adjusted to the corporate income tax rate and the financial aspect that focuses on the sources of finance debt and equity, and the cost of each source and its representation in the total capital of the company. (Al Mamun & Abu Mansor, 2012)

2.3 Return on Investment (ROI

The main objective of the investment is to obtain an acceptable return on these investments. The normal method of investment valuation is to calculate the return on these investments, which is ROI. The return on investment is the best way to measure profitability and management performance. It is a better measure than the profit itself as the return on investment depends on investments to generate profit, and it is considered one of the most reliable indicators in judging companies to exploit their assets and financial resources optimally as sales alone do not give a clear indication of the financial and operational performance of the business, and that is because sales constitute part of the operating performance. When we talk about the rate of the return on investment, we are talking about the size and capacity of the investment used within the company. This capacity is the total assets of the company because the assets are responsible for generating net revenues in terms of analysis (Al-Muhtadi, 2014).

The rate of the return on investment refers to the amount of revenue generated for each Jordanian Dinar invested in assets, which can be judged on the financial performance of companies through comparison with their counterparts in the financial market or the so-called industry standard (Al-Zubaidi, 2012).

2.4 Previous Studies

Many texts in literature has discussed the issue of EVA in many aspects such as:

The study of Jakub et al. (2015) aimed at presenting one of the possible ways of calculating the economic value added index and applying it to Slovak companies. In this study, Preliminary data, as well as secondary data were used, together with various analytical methods. The study showed the concept of value based on measuring business performance and theoretical basis in economic profit. The study examined the measurement of economic profit through the index of economic value added. But it points out that when you think about economic profit and on a single scale, you must first distinguish the theoretical basis of this concept, its forms of application and the possibilities of practical application. In another study, Bin Marid (2014) examined the extent to which the economic value added index contributed to the evaluation of the financial performance of the private sector institutions compared to the traditional performance indicators ROE, ROA, and ROS and applied

to NCD Rouiba.   And these indicators were used to measure the financial performance for NCD co. and used several models to measure the correlation between the indicators and EVA. The study found a positive relationship between market's value and economic value added and a strong correlation with an explanatory of 99%.

Bahasain (2013) also tested value creation strategies for a group of Indian companies using statistical methods to measure economic value added as the best way to measure the market's value of companies and compared the results of this test to traditional performance measures. However, this test did not support the choice of the EVA as the best measure of the market's value of companies, which means that other non-financial factors affecting market values should be taken into consideration to create value for shareholders or to measure the financial performance of companies. Therefore, the study recommended looking for other factors in addition to the economic value added such as employee satisfaction, product quality and others.

In another study, Al Mamun and Abu Mansor's (2012) aimed to measure the financial performance of the Malaysian companies based on the economic value added rather than the standards currently adopted by the Malaysian companies. It also aims to identify the reason for using the economic value added in measuring the financial performance and the advantage of its use compared to the traditional methods. The study showed that the use of EVA was successful in measuring the financial performance of large companies such as Coca-Cola, Sprint and Quaker Shovan, and is able to measure the real profitability of these companies.

Ismail (2011) in his study also to answer the positive EVA to outweigh the negative EVA to the company's performance forecast aimed during the study period and play a vital role in explaining the changes in equity returns. The study found that creating value or not is not related to the returns of the stocks, and there is a strong relationship between the creation of the achieved profits' value, and that creating value has better results in doubling the profits.

Attiah in his study (2010) examined the measurement of the accounting performance of companies through the model of EVA and its application to the Egyptian telecommunications sector. The study found that EVA had exceeded the traditional performance measures and was consistent with the goal of maximizing the wealth of the owners and creating value.

The study of Leong & et al (2009), aims at answering the following question: Is the formation of investment portfolios based on EVA to EVAM succeeds in achieving higher returns than portfolios that are formed based on the rate of return to the market's value of E / P and the ratio of book value to market's value B / M. To answer the question, the researcher analyzed 30 investment portfolios and concluded that the portfolio with the highest EVAM was performing better.

Mashayekhi & Bahavarnia (2007) tried to provide a guide for companies, investors, and policy makers to bring EVA or residual income as an alternative to returns and operational cash flow as a key tool for measuring company performance, but the findings of the study showed no evidence of EVA or residual income on the return or cash flow operational but all the information provided by all methods of measuring performance gave the same results.

The study of Al-Ardy (2006), has presented the theoretical and practical framework of the concept of EVA and its use as an input to the development of financial reports under the uncertainty conditions that accompany the business environment. The most important findings of the study is that EVA is a measure of performance, proposed amendments to accurately measure EVA.

Zubeidi and Al-kilani, (2005) examined the impact of EVA on the market's value of shares of industrial companies in Jordan as a criterion for assessing the performance of companies in order to maximize the wealth of owners. The researcher concluded that is a weak relationship between EVA and the stocks market's value.

Table 1. Summary of the results of related researches

Researcher and Research Year	Variable	Result
Jakub et al. (2015) (2015), Slovak companies	EVA, economic profit	The study showed the concept of value based on measuring business performance and theoretical basis in economic profit, and examined the measurement of economic profit through the index of economic value added.
Bin Marid (2014), NCD co.	EVA, ROE, ROA, ROS	The study found a positive relationship between market's value and economic value added and a strong correlation with an explanatory of 99%.
Bahasain (2013), Indian companies	EVA, Market's Value	EVA test did not support the choice of the EVA as the best measure of the market's value of companies, which means that other non-financial factors affecting market values should be taken into consideration to create value for shareholders or to measure the financial performance of companies.
Al Mamun & Abu Mansor's (2012), Malaysian companies	EVA traditional performance measures	study showed that the use of EVA was successful in measuring the financial performance of large companies such as Coca-Cola, Sprint and Quaker Shovan, and is able to measure the real profitability of these companies
Ismail (2011), to answer the positive EVA to outweigh the negative EVA to the company's performance	EVA , equity returns	The study found that creating value or not is not related to the returns of the stocks, and there is a strong relationship between the creation of the achieved profits' value, and that creating value has better results in doubling the profits
Attiah in his study (2010), Egyptian telecommunications	EVA,traditional performance measures	The study found that EVA had exceeded the traditional performance measures and was consistent with the goal of maximizing the wealth of the owners and creating value.
Leong & et al (2009), analyzed 30 investment portfolios	formation of Portfolios, EVA, EVAM, E / P, B / M	The portfolio with the highest EVAM was performing better.
Mashayekhi & Bahavarnia (2007).	EVA, residual income, returns, operational cash flow	The study showed no evidence of EVA or residual income on the return or cash flow operational but all the information provided by all methods of measuring performance gave the same results.
Al-Ardy (2006).	EVA, financial reports	The study find that EVA is a measure of performance, proposed amendments to accurately measure EVA
Zubeidi and Al-kilani, (2005), industrial companies in Jordan	EVA, market's value of shares,	The study Concluded that is a weak relationship between EVA and the stocks market's value.

3. Methodology

In this study, the researcher relied on the analytical method of deductive inference based on the published

financial statements of the target companies during the period 2006-2015 to test the effect of the independent variables on the dependent variable in the study during that period and the explanatory capacity of the study model using the multiple regression model. The data were published in the companies' annual reports through the ASE as well as the previous literature on the subject of the study and the statistical publications issued by the Jordanian Central Bank. Financial analytical tools were applied by using the needed financial ratios for such a study. The statistical analytical program, E-views, was also used to find the impact of the independent variables on the dependent variable.

3.1 Hypotheses

The 1st hypothesis: There is no statistically significant effect of EVA as a measure of recent performance on changes in the market's value of the stock of companies under study.

The 2nd hypothesis: There is no statistically significant impact on return on investment (ROI) as one of the traditional performance measures on changes in the market's value of the stock of companies under study.

3.2 Study Model

Descriptive model, the model of the study will be based on the effect of the independent variables on the dependent variable by using multiple linear regression as shown in Figure (1).
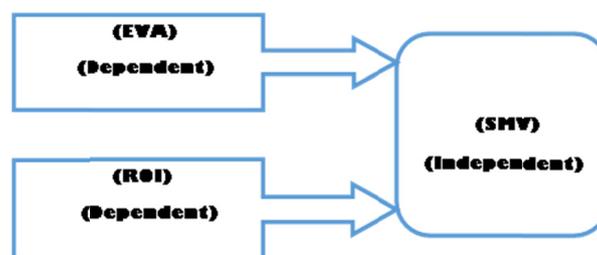

Figure 1. Descriptive model of the study variables

Source: prepared by the researcher 2016.

Mathematical Model, This study uses the multiple Regression model to identify the relationship between the independent and the dependent variables and their degree of significance measured by calculating T-value, and the explanatory power of the model (adjusted R2). The following multiple regression model will be used to measure the effect of the independent variables on the dependent variable (Kosalathevi, 2013):

$$SMV = \alpha0 + B1 * EVA + B2 * ROI + eit \tag{1}$$

Whereas:

SMV: Stock market's value.

EVA: Economic Value Added.

ROI: return on investment.

3.2 Society and Study Sample

The study was composed of all the public shareholding companies listed on the ASE during the period 2006-2015 which are almost 228 divided into 3 sectors: financial sector, industrial sector and service sector. Those were chose from the Jordanian Public Shareholding Company's guide issued by the ASE (ASE, 2016), excluding the following companies:

1) Companies that merged with other companies during the study period.

2) Companies whose financial statements were not available during any one year of the study period.

3) Companies that did not continue to work during the study period and did not continue trading their shares during this period.

The valid society is (117) company out of (228) company, where the researcher excluded the companies that did not meet the criteria which are (111) company.

The sample of the study: 46 companies were selected by simple random way from the valid society which forms 40% of the valid society. Accordingly, the researcher completed the study.

3.3 Procedures

First, the stock market's value (SMV): closing prices from the ASE website were considered, and then the average of the SMV of the companies surveyed during the whole study period was extracted.

Second, economic value added: One of the main methods used to measure EVA is the net operating profit after taxes (NOPAT) minus invested capital multiplied by the Weighted Average Cost of Capital (WACC). The researcher will calculate the EVA in the following equation (Issham, 2011):

$$EVA_t = NOPAT - C_t * WACC \qquad (2)$$

Whereas:

EVAt: Economic Value Added.

Ct: Capital invested.

WACC: Weighted Average Cost of Capital As noted previously.

The equation variables above were extracted by the researcher as follows:

1)   NOPAT: net operating profit after tax and measures the generating capacity of cash flows from recurring operations and activities within the Company regardless of the capital structure, after deducting taxes and before interest and depreciation and can be calculated according to the following formula (Hal, 2014):

$$NOPAT = EBIT * (1\text{-}tax) \qquad (3)$$

Whereas:

EBIT: Net profit before interest and tax

Tax: Rate of corporate income tax.

2) C_t: Capital invested, calculated by the total long-term liabilities and equity rights according to the following equation:

$$C_t = Equity + Long\ term\ debt \qquad (4)$$

3)   WACC: Weighted Average Cost of Capital structure calculated according to the following equation (Al-Qudah & Al-Afeef, 2015) :

$$WACC = K_d * W_d * (1\text{-}T) + K_s * W_s \qquad (5)$$

Whereas:

K_d: debt cost in the capital structure of the company, where the average interest rates issued by the Jordanian Central Bank during the period of the study reached 0.089.

W_d: debt ratio weight in the capital structure.

T: Income tax.

W_s: equity ratio weight in the capital structure.

K_s: equity cost in the capital structure, and the Capital Assets Pricing Model (CAPM) was used to calculate it (Al-Qudah & Al-Afeef, 2015)

$$K_s = R_f + B_j (R_m - R_f) \qquad (6)$$

Whereas:

Ks: The required return on the stocks which represents the cost of debt financing Kd.

Rf: Risk-free rate of return is usually calculated at the rate of return on treasury bonds issued by the Jordanian central bank for six months of 4.25%. (Jordanian Central Bank, 2016)

Bj: Beta stock, which was calculated by the financial functions on the Excel software using the slope function of the returns of the stock and market returns. The annual returns of the stocks and the market index were also calculated using Excel as follows: (Al-Qudah & Al-Afeef, 2015).

$$Ks = (P1\text{-}P0) \setminus P0 \qquad (7)$$

Rm: Market return calculated by the ASE index.

Third: Return on investment (ROI): The researchers used many methods in calculating the rate of return on investment, including the rate of return on assets and the rate of return on equity and holding period yield (HPY) and other methods, and in this study the return on investment will be calculated through (DuPont Analysis), a

combined percentage of the sales profitability ratio multiplied by the ratio of asset turnover rate (Al-Zubaidi, 2012), as follows:

$$ROI= (Net\ Operating\ profit)/\ (Net\ Sales)\ X\ (Net\ Sales)/\ (Total\ Assets) \tag{8}$$

The rationale for using the above equation in calculating the ROI is that the assets were financed by the funds provided by the owners and the funds borrowed from third parties and therefore the net profit of the operations was used to extract the profit-to-sales ratio (Al-Qudah & Al-Afeef, 2015).

4. Statistical Analysis

4.1 Descriptive Analysis

After extracting the values of all the independent variables and the dependent variable as a model study using statistical analysis software (E views) to determine the impact of both (EVA) and (ROI) on the market's value of the stock, as follows:

Table 2. Measures of central tendency and dispersion of study variables

	ROI	EVA	SMV
Observations	46	46	46
Mean	3.686	4298835	3.686
Std. Deviation	5.394	24356127	5.394
Skewness	4.396	3.415	4.396
Kurtosis	24.846	20.717	24.846
Minimum	0.447	-6101990	0.447
Maximum	34.591	1.34E+08	34.591

Source: Prepared by the researcher based on the outputs of the analysis.

From the table above, there is a significant deviation between EVA values from their arithmetic mean and a small deviation between ROI values from their arithmetic mean.

Table 3. Correlation between matrix study variables (Correlations)

Variable	SMV	EVA	ROI
SMV	1.000	-0.114516	0.474857
EVA	-0.114516	1.000	-0.214076
ROI	0.474857	-0.214076	1.000

Source: Prepared by the researcher based on the 2016 analysis output.

Table 3 shows that there is no correlation between the independent variables prior to analysis by Pearson correlation coefficient, which means that the results of the study model used by the researcher have no effect on the results, whether at the level of (0.01) or at the level (0.05). Therefore, the researcher completed the analysis process and tested the hypotheses without having to test the variance inflation factor (VIF).

And as can be seen from the above table, there is a (weak) correlation between SMV market's value and EVA, and a positive (medium) correlation between the market's value of the SMV and the return on investment (ROI).

In order to determine the suitability and acceptability of the model used, the results of the F test conducted on the study model by the researcher can be found in the following table:

Table 4. (F) Test

R-squared	Adjusted R-squared	Sum of Squares R	Mean Square Va.	F	Prob.
0.225	0.189	1013.97	3.686	6.265	0.004

Source: prepared by the researcher based on the outputs of the analysis 2016.

The value of F is (6.265) and the mean level of the study model is (0.004) which is less than the value of the acceptable level of 0.05, which means that the model is acceptable at a significant level (0.01) and (0.05).

4.1 Hypotheses Test

To verify or deny the validity of the hypotheses of the study, the researcher tested (Panel Least Squire) of the variables of the study and the results of the analysis of the variables of the study as shown in the following table:

Table 5. Results of the evaluation of the study model

Variable	Coefficient	Std. Error	t-statistic	Prob.
(Constant)	0.2322958	1.041842	1.183440	0.2431
EVA	-2.99E-09	3.04E-08	-0.098111	0.9223
ROI	36.36971	10.58624	3.435564	0.0013

Source: prepared by the researcher based on the outputs of the analysis 2016.

Table 5 above presents the results of the evaluation results of the study model, on which the hypotheses were analyzed as follows:

The 1st hypothesis: There is no statistically significant impact of economic value added (EVA) on changes occurring in the market's value of the stock of companies under consideration.

Table (5) shows the effect of the first independent variable, EVA, on the changes in the SMV, and the comparison between the t-value and the calculated t value of -0.098. (0.9223), and therefore the hypothesis of proof is rejected and accept the nihilistic hypothesis. Accordingly, it is possible to say:

There was no statistically significant impact of economic value added (EVA) as a modern performance measure on changes occurring in the market's value of the stock companies during the period under study (2006-2015).

The 2nd hypothesis: There is no statistically significant effect of the return on investment ROI on changes occurring in the market's value of the stock of companies under consideration.

Table (5) above shows the result of the test of the effect of the second independent variable, the rate of return on investment (ROI) on the changes in the SMV, and the comparison between the (t) value and the calculated value (t) (1.183440), which is larger than the (t) value, and the probability is (0.0013). Therefore, the hypothesis of proof is accepted and the nihilistic hypothesis is rejected. Accordingly, it can be said: There is a statistically significant effect of the rate of return on investment (ROI) as a traditional performance measure on changes occurring in the market's value of the stock (SMV) for the companies under study during the period (2006-2015).

To find out the explanatory power of the model, the researcher took the analysis as shown in Table (6) below:

Table 6. Explanatory capacity of the model

Model	R- Square	Adjusted R-Square	Std. Error
1.	0.225662	0.189647	4.856017

a Predictors: (Constant), IR, CR, LR.

Source: Prepared by the researcher based on the outputs of the analysis.

(R-squared) was 22.5%, which means that 22.5% of the factors affecting the changes in SMV of the shares of the companies listed in ASE during the period 2006-2015, most of which were due to the rate of return on (ROI), and that 77.5% of the factors that affect the changes in SMV of the shares of the surveyed companies are attributable to other factors outside the model.

5. Results

After reviewing the results of the above statistical analysis, the researcher reached to the following results:

1)   The results of the study showed that there is no statistically significant effect of the economic value added (EVA) as one of the recent performance measures on changes in SMV of corporate shares that are under study during the period (2006-2015).

2)   The results of the study showed that there is a statistically significant effect of the rate of return on investment (ROI) as one of the traditional performance measures on the changes that occur in the SMV of the corporate shares under study during the period 2006-2015. This finding is also consistent with most the previous studies, which show that EVA does not outweigh traditional performance measures.

3)   The results of the study are consistent with most of the previous studies (Mashayekhi & Bahavarnia, 2007), Isham, (2011), Bahasin Madan Lal, (2013), Al-Zubaidi and Kilani (2005) the researcher relate this result to finding most companies have negative EVA, or possibly due to the large deviation of the EVA values from their arithmetic mean and because of the cost of capital taken into account when calculating EVA, most notably, the Stewart study in 1990, which showed that there is a positive relationship except for companies with negative EVA

4)   There is a (weak) correlation between SMV and EVA, and correlation (medium) with return on investment (ROI).

5)   The model was able to interpret 22.5% of the changes in the dependent variable by the factors studied in the study, which means that 77.5% of the changes are due to other factors.

6. Recommendations

1)   To encourage investors and traders in the ASE to rely on financial analysis and traditional performance measures in performance evaluation as they give a clearer picture of EVA and have greater ability to interpret changes in the market's value of stocks.

2)   Conducting many studies on EVA and its applications as a modern measure of performance, due to the lack of theoretical and applied literature on this, looking forward to the possibility of applying this concept to Jordanian companies listed on ASE.

3)   The need to look for other factors that would explain changes in the market's value of stocks such as leverage, systemic risk, macroeconomic indicators such as interest rates, inflation, etc., because the model used by the researcher in this study explained for only 22.5% due to ROI .

References

Al Ardy, M. (2006). *Using economic value added model for the development of financial reporting under uncertainty conditions*, (Unpublished Doctoral dissertation). University of Helwan, Egypt.

Al Mamun, A., & Abu Mansor, Sh. (2012). EVA as Superior Performance Measurement Tool. *Modern Economy Journal*, (3), 310-318. http://dx.doi.org/10.4236/me.2012.33041

Al- Zubaidi, H. (2012). *Financial analysis for the purposes of performance evaluation and prediction of failure* (1st ed.), Alwarrak, Amman, Jordan,

Al-Muhtadi, G. (2014). *Using of traditional financial performance and economic value is evaluated to measure the change in the market's value of stocks market value*. (Unpublished master dissertation). The Islamic University, Gaza.

Al-Qudah, A., & Al-Afeef, M. (2015). *Special topics in financial management* (1st ed.). Lambert, Germany. https://www.lap-publishing.com/catalog/details//store/gb/book/978-3-659-82701-3/special-topics-in-financial-management

AL-Qudah, A., & Al-Afeef, M. (2016). The Relationship between the Investment in Current Assets and Profitability & Liquidity. *Finance and Investment Analysis, 4*(4), 11-22. Retrieved from https://www.scienpress.com/journal_focus.asp?main_id=69&Sub_id=IV&Issue=1633

Al-Shabib, D. (2015). *Financial & Monetary markets* (2nd ed.). Al-Maseerah, Amman, Jordan.

Al-Sharqawi, A. (2006). *The relationship between the economic value added and stock returns - process study*, the fifteenth Annual Scientific Conference, Conference of financial markets and markets securities - prospects and challenges, University of United Arab Emirates, UAE.

AlZobaidi, H & Al Kelani, Q. (2005). Restructuring the financial management using standard economic value added (analytical study of a sample of industrial companies listed in (ASE). *Jordan Journal of Applied Sciences,* (1), 1-20.

Attiah, M. (2010). Economic value added as an input to measure the financial performance of the entity: An

Empirical Study on the Egyptian telecommunications sector. *Scientific Journal of Research and Business Studies,* (24), 313.

Bahasain, M., (2013). Economic Value Added and Shareholders' Wealth Creation: Evidence from a Developing Country. *International Journal of Finance and Accounting*, *2*(4), 195-197. http://dx.doi.org/10.5923/j.ijfa.20130204.01

Bin Marid, Z. (2014). *The contribution of economic value added index in evaluating the financial performance of the private sector institutions in Algeria: case study NCA Rouiba during 2013.* (Unpublished Master dissertation). University of Kasidi, Merbah, Algeria.

Copeland, T., Koller, T. and Murrin, J. (2000). Valuation: measuring and managing the value of companies (3rd ed.). New York, NY.: John Wiley & Sons.

Ehrbar, A., (1998). *Stern Stewart's EVA: The real key to creating wealth* (1st ed.). USA, New York: John Wiley & Sons.

Falateh, A., & Al-khayal, T. (2010). The relationship measurement between the economic value added and return on equity in the Saudi shareholding companies, Empirical Study. *Journal of Accounting, administration and insurance, Faculty of Commerce, University of Cairo, 73*(1). 633-636.

Gitman, L., & Zutter, C. (2012). *Principles of Managerial Finance* (13th ed.). USA: Prentice.

Hal, N. (2014). Using economic value added approach to evaluate for accounting performance for companies, (Unpublished master dissertation). University of Port Said, Egypt.

Ismail, I. (2011). The ability of EVA (Economic Value Added) attributes in Predicting company performance. *African Journal of Business Management, 5*(12), 4993-5000. http://dx.doi.org/10.5897/AJBM11.118

Jakub, S., Viera, B., & Eva, K. (2015). Economic Value Added as an measurement tool of financial performance. *4th World Conference on Business, Economics and Management, WCBEM, Procardia Economics and Finance 26,* 484-489.

Jiambalov, J. (2007). *Managerial Accounting* (3th ed.). New York: Jhon wiley & sons, Inc.

Kosalathevi, T. (2013). Impact of Economic Value Added on Financial Performance: Special Reference to Selected Private Banks in Sri Lanka. *International Institute for Science, Technology and Education* (IISTE), *13*(3), 102-108.

Leong, K., Pagani, M. K., & Zaima, J. (2009). Portfolio strategies using EVA, earnings ratio or book-to-market: Is one best? *Review of Accounting and Finance, 1*(8), 76-86. https://doi.org/10.1108/14757700910934247

Mashayekhi, B., Talebi, A., & Bahavarnia, V. (2007). *Eva versus earnings: evidence from Iran*, International Journal of Accounting and Information Management, (18) 1. https://doi.org/10.1108/ijaim.2010.36618aad.006

Mocciaro, L., Destri A., Picone P. M. & Minà A. (2012), Bringing Strategy Back into Financial Systems of Performance Measurement: Integrating EVA and PBC. *Business System Review, 1*(1), 85-102. http://www.iiste.org/Journals/index.php/DCS/article/view/9416/9639

Weston, J., & Brigham, F. (1993). *Essentials of Managerial Finance* (8th ed.). Chicago.

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