

The Correlation of EVA and MVA with Stock Price of Companies in Tehran Stock Market

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Abstract

Nowadays, worldwide, investors are seeking more stockholder value than just earning high profit, therefore, every company aims to maximize its stockholder value and considers it as its ultimate target. To evaluate companies' ability in creating stockholder value, investors do want to focus on their financial performance and consider the stock price of companies as the usher of that. For a long time, traditional measures of performance like Earning per Share, Return on Investment, etc., have been used by investors to measure stockholder value creation in companies, but according to the potential weaknesses of the traditional measures of performance, they have gravitated to use value based measures of performance which focus on changes in value. The value based measures of performance are diverse and there is no consensus between scholars about their competence in evaluating financial performance of companies perfectly. To assess the ability of the value based measures in evaluating stockholder value creation, in this paper the attempt is made to examine the relationship between stock price behaviour of companies and two of the most important value based measures, economic value added and market value added in Tehran Stock Market. The results of the study corroborate the significant correlation of the research variables.

Key words: *Value based measures, Economic value added, Market value added, Stock price, Stock market.*

1. Introduction

Investors in stock markets want to optimize their investment received. In fact, they are interested to buy kinds of stocks which have the most profit and efficiency. In this decision making process, stock price plays a pivotal role. Actually, investors care about the stock price fluctuations in a period of time and they prefer to invest on the stocks which show a growth of price during the time. In better expression, if the market price of the stock is high, the company's managers are decisive regarding the company's objectives, this is the way investors think (Lehn and Makhija, 1997). But, the critical question is that if stock price is an appropriate indicator to show a company's real financial performance.

With the development of the capital markets, the role of financial performance measures in reflexing companies' operations through their real information content has been highlighted (Kim, 2006). Meanwhile, the competition of two clusters of the financial performance measures, traditional and value based measures, toward evaluation of companies' performance has been concentrated by many scholars (e.g. Brossy and Balkcom, 1994; Lehn and Makhija, 1997; Chen and Dodd, 1997; Garvey and Milbourn, 2000).

The traditional performance measures have been criticized by many scholars (e.g. Hunt, 1985; Verrecchia, 1986; Dyl, 1989 Jensen and Murphy, 1990; Gomez-Mejia and Balkin, 1992). The opponents of the traditional measures of performance believe that these measures are not proper guidance to make strategic decisions from three aspects; first, these measures ignore the cost of capital that is invested to create profit. Second, to specify the effect of various strategic factors, the traditional measures of performance are too aggregated. The third aspect for the opponents of these measures of performance is that these measures are not capable to determine the reasons of high or low performance of a company (Chen and Dodd, 1997).

To respond these weaknesses, the value based measures evolved. The main reason for the value based measures of performance to become prevalent was this point that if the main purpose of any company is to enhance its stockholders wealth, so it is necessary to implement effective instruments which are able to evaluate real value creation. Measures which are based on value

can provide essential tools to evaluate company's operations and real created value in a specified period of time (Kim, 2006). Amid the various value based measures of performance, Economic Value Added (EVA) and Market Value Added (MVA) have the most reputation which nowadays are applied more than other tools for internal and external evaluation of companies' performance (Lehn and Makhija, 1996).

EVA was introduced by Stewart (1991) as a value based measure of performance which is capable to present true profit of a company (Stewart, 1991, 1994). The most important feature of EVA is to consider cost of capital for evaluating a company's performance. EVA indicates, a company's value would be increased only in condition that its created returns is more than its cost of capital (both equity and debt). EVA is a measure that has a direct linkage with a company's market value. And, MVA is the present value of future EVA (Ehrbar, 1999).

EVA and MVA has a relationship together and empirical evidences prove it (Lehn and Makhija, 1996), but there is a critical question here, if EVA and MVA can depict the stock price behaviour better than the traditional measures of performance.

There is no consensus between the scholars to answer this question. For instance, based on Grant (1997) EVA pursues MVA better than other measures like Accounting Earnings and Cash Flows and shows the stock price behaviour better than other measures. On the other hand, Dodd and Chen's (1997), have the opposite idea, they explain EVA and MVA are incapable to indicate stock price behaviour and have not any privilege in comparison with the traditional measures of performance. To clarify the ambiguous issue of correlation of EVA and MVA measures with stock price behaviour, this relationship is investigated on companies' stocks in Tehran Stock Market.

2. Literature Review

EVA which was introduced by Stern Stewart & Company consultant group (Stern, 1985; Stern et al., 1995; Stewart, 1991) is a measure to compute a company's value creation. The EVA development and prevalence is relegated to interplay of two important trends; first, the weaknesses and shortcomings of the traditional measures of performance have been revealed

during the 1980s (Kaplan, 1983, 1984). The traditional measures are often affected by the accountants' personal perceptions, like depreciation manner and FIFO vs. LIFO and this fact causes the profitability analysis. Consequently, the traditional measures of performance could be manipulated by companies' managers easily (Hunt, 1985; Verrecchia, 1986; Dyl, 1989; Jensen & Murphy, 1990; Gomez-Mejia & Balkin, 1992).

Second, two events happened during the 1980 decade. A tough competition occurred between American companies and Japanese companies (Kaplan, 1983). Simultaneously, financial market were experiencing internationalization and a vast expansion. This international competitive atmosphere created many opportunities and also challenges, therefore, the necessity of better performance measures were felt more than past.

The EVA concept attracted a noticeable attention in the 1990s, especially in the field of financial economics and also was exerted by many companies, for instance, DuPont, Coca Cola, Polaroid, Eli Lilly, Whirlpool, and Pharmacia (former Monsanto).

The EVA literature reveals that since the evolvement of this measure, many scholars have devoted their times to investigate EVA in comparison with the traditional measures of performance (e.g. Brossy and Balkcom, 1994; Lehn and Makhija, 1997; Chen and Dodd, 1997; Garvey and Milbourn, 2000), and based on their trends, can be categorized in two taxonomies; (1) EVA's proponents and (2) EVA's opponents.

It seems EVA's proponents have allocated the biggest part of the literature to themselves at the beginning years of the EVA's evolvement. There are various valid papers in business trade magazines for example, Fortune and Forbes, which have appraised EVA advantages, encouraged companies to implement it, and compiled a top list of performers through EVA data gathered by Stern Stewart & Co (Rutledge, 1993; Tully, 1993, 1994; Walbert, 1994; Fisher, 1995; Lieber, 1996; Teitelbaum, 1997). Academicians also gravitated to focus on EVA through several articles about EVA in trade magazines (e.g. Walbert, 1993; Davies, 1996; Tully, 1993, 1994, 1998, 1999). Several researches investigated EVA and figured out EVA enhances stockholder value (Stewart, 1991, 1994; Stern et al., 1995; Pettit, 2000). There are also some researches which

manifested a strong positive interdependence of EVA and MVA (Walbert, 1994), and also stockholder returns (O'Byrne, 1997). The results indicates; EVA contributes a major portion of MVA (Grant, 1996) and EVA expresses more changes of MVA in comparison with the traditional measures of performance, like Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), Net Income (NI), Net Operating Profit after Tax (NOPAT) and Free Cash Flow (FCF) (O'Byrne, 1996; Uyemura et al., 1996; Milunovich and Tsuie, 1996).

On the other hand, some scholars tended to assess a relationship between EVA and stock price. For instance, based on While Lehn and Makhija (1997) study, EVA expresses the most alterations of stock price comparing the traditional performance measures like, ROA, ROE and Return on Sales (ROS). Other researches like Chen and Dodd (1997) demonstrated that EVA indicates stock price behaviour better than the traditional performance measures, but they still believed that the traditional measures are capable to evaluate stock price behaviour (for example; EPS, ROA, and ROE). Although, it can be explained that some other scholars (e.g. Ray, 2001; Chen & Dodd, 2001) disagreed with the special ability of EVA to evaluate stock price behaviour and considered the aforementioned features of EVA as an anecdotal stories.

The second taxonomy of EVA belongs to its opponents who have applied similar approach but their results have been in contradiction with the EVA proponents' results. For instance, Biddle et al. (1997) assessed the information content of EVA in comparison with other performance measures like; Accounting Earnings, Residual Income (RI) and Operating Cash Flow (OCF). They utilized the data which had been provided by Stern Stewart & Company. Their results supported the stronger correlation of Accounting Earnings and OCF with stock price than EVA. Furthermore, Chen and Dodd (2001) tested the power of EVA on stock price behaviour in comparison with RI and Operating Income (OI). They implemented different methodology for statistical testing and concluded that RI and OI explain stock price behaviour better than EVA. Another research by Clinton and Chen (1998) also proved that between EVA, Return on Investment (ROI) and Residual Cash Flow (RCF), the best measure to predict stock price behaviour is RCF. In a different domain, Kramer and Pushner (1997) investigated the correlation of EVA and MVA, their finding clarified that NOPAT is the better indicator than EVA to explain MVA variations. In another study, Fernandez (2003) assessed the relationship between EVA,

MVA, Weighted Average Cost of Capital (WACC) and NOPAT via data gathered by Stern Stewart & Company in a sample of European and American companies. He affirmed WACC and NOPAT have a stronger relationship with the increase in the MVA in comparison with EVA. His findings supported the accuracy of Riceman et al. (2002) and Biddle et al. (1997) results indeed.

2.1 EVA Elaboration

EVA is defined as a value based measure of performance, a tool for investment decisions and an indicator to reflect the real stockholder value which is created over a period of time (Chen and Dodd, 1997; Bromwich and Walker, 1998). EVA is a tool of financial management and a strategy formulation which assists companies to earn a greater return than the cost of capital. EVA is implemented to specify financial position of companies and also to usher management for making the best decisions due to allocating the limited resources, capital budgeting and acquisition analysis (Fernandez, 2003).

EVA is a measure to recognize the difference between the cost and return of a company's capital (Stewart, 1991). It means if EVA is positive then the company had succeed to create value for its stockholders and vice versa. Although EVA is similar to the traditional profit measures, but two significant differences separate it from them; first, the cost of capital is considered in EVA, while Generally Accepted Accounting Principles (GAAP) do not constrain it. Second, EVA considers the cost of equity while, the figure of NI in Income Statement only indicates some visible types of capital cost, interest and ignores the cost of equity. EVA's proponents claim that these functions of EVA are highly noticeable because those performance measures which do not consider these kinds of costs are not capable to manifest a company's success in creating value for its stockholders (Stewart, 1991; Stern et al., 1995; Pettit, 2000, 1994).

In better expression, EVA is a measure that depicts a true picture of stockholder wealth creation. Apart of EVA's ability to motivate managers for creating more stockholder value and also to evaluate the management activities, it has further functions. Roztoci and Needy (1999) explain EVA can assist managers to;

- Have better decisions in investment;
- Recognize potential opportunities; and

- Envisage short-run and long-run benefits for the company.

In general, EVA is an operant and authentic measure to evaluate managerial decision quality and also a company's value creation. Over the time, positive EVA will enhance a company's value and vice versa.

Although EVA has many advantages as mentioned, but some disadvantages are explained for this astute value based measure. Opponent of EVA argue that, EVA is not a sufficient measure as same as the traditional measures of performance like ROI to assess a company's success to obtain its strategic aims and also to evaluate divisional performance.

EVA is not an appropriate criterion to measure financial performance of certain industries lonely (Wood, 2000). Furthermore, for companies which are new high growth like in the context of new technology-intensive industries, may EVA is changed year-on-year, sometimes negatively, and indicates the value creation erroneously, while in this case, value is correlated to expected cash flows in future (Wood, 2000).

EVA also has another weakness, it is useless in inflationary era and cannot specify the real profitability in this condition because EVA is deflected by inflation.

2.2 MVA Elaboration

The main feature which demonstrates EVA's power is, its direct linkage with MVA, theoretically and empirically. But, in opposite of EVA that in general is a measure to evaluate internal performance, MVA is a measure for evaluating external performance. The difference between the invested capital by stockholders and the market value of a company indicates MVA indeed (Mouritsen, 1998).

Wealth creation is the common feature and ultimate aim of every company regardless the kind of business (producing goods or services), it is a principle in business. The common mechanism of every company for producing wealth is to attract investors' capital along other inputs like raw material and workforce to create a thing with more value than the inputs' cost including the opportunity cost of capital.

MVA is a criterion to measure wealth creation, then it can be concluded that every company should attempt to create the most MVA as far as it can. MVA shows the difference between the invested capital by stockholders in a company and the money they could get when they sell their stocks considering current market price. In better expression, MVA depicts if a company has increased or decreased stockholder wealth (Ehrbar, 1999).

MVA can be considered as the best external indicator to evaluate management performance (Lehn & Makhija, 1996). The rationale of this claim is that MVA is capable to demonstrate if a company managers have been successful or not to allocate the rare resources of the company. MVA also specifies if a company has been positioned by its managers in the determined situation for the long-run or not, because MVA shows the present values of expected payoffs in long term (Lehn & Makhija, 1996).

Apart of aforementioned advantages of MVA, there are some disadvantages which are considered for this measure; first, in condition that every company should aim to create MVA as much as they can, for day to day decisions and long term planning, MVA is not much utilized as an appropriate criterion. Management efforts could be overwhelmed in the short term by overall changes of stock market. Last year's results of a company is an aggregation of years-old outcomes from its activities which are indicated in its stock price (Mouritsen, 1998). Therefore, a company can keep MVA positively and highly based on its successful background in condition that its current activities can be unsuccessful and risky.

Second, MVA can only be computed for those companies which have market price and active in public businesses. And third, MVA even cannot be computed to evaluate the performance of subsidiaries, individual division and business units of those companies are publicly traded. Therefore, to overcome these weaknesses, managers need to have some operant internal performance measures that are closely correlated to MVA as an external performance measure like EVA (Ehrbar, 1999).

2.3 The Relationship between EVA and MVA

Stewart (1991) defines MVA as the present value of future EVA. Primary and main objective for each company should be maximizing MVA. EVA is creator of MVA because MVA is current value of future EVA that is an evaluation and valuation benchmark of company in the market (Grant, 1997). Hence, although EVA is an internal measure to evaluate performance, but this internal measure leads to create an external measure that determines company's value in the market.

MVA is an indicator of capital market evaluation from company's activity and is not affected by company's activity during a year, but it is affected by companies' performance in future years (Grant, 1997). MVA is zero in condition that investors expect to earn no more or less than the company's cost of capital, it means, value is equal to invested capital. It is clear that positive MVA demonstrates the direction of investors' expectations of the company to create positive EVA and earn more than cost of capital and vice versa.

Therefore, if future EVA be positive, companies' stocks will be best sold in the market. Otherwise, if future EVA be negative, companies' stocks in the market will be sold under their book value and these kinds of companies do not have any chance to retain in competitive stock markets.

The relationship between EVA and MVA affirms that EVA has a direct linkage to a company's market value, and any changes in investors' expectations about future EVA form the fluctuation of its market value (Ehrbar, 1999). Therefore, it can be concluded that increasing EVA is the manner for appropriate management toward enhancing stock price and albeit, stockholders wealth.

3. Data

To achieve the research purpose which is investigation of the correlation between two applicable performance measures, EVA and MVA, and stock price of companies in Tehran Stock Market, 40 companies which had been listed in Tehran Sock Market were selected by random sampling

method as a sample of the current study. The total population of the current research were 567 companies. The sample period includes 3 years; 2010, 2011 and 2012.

The required financial information such as Return on Invested Capital (ROIC), WACC, Invested Capital (IC), NOPAT were calculated by the gathered data from the financial statements of the selected companies including their income statements and balance sheets via the official database belongs to Tehran Stock Market (Financial Information Processing of Iran, 2013).

3.1 EVA Related Measures

The study measures two related performance measures: EVA and MVA. EVA is computed by the bellow equation:

$$EVA = (ROIC - WACC) \times IC \quad (1)$$

Where ROIC is return on invested capital and is computed:

$$ROIC = \frac{NOPAT}{IC} \quad (2)$$

NOPAT is net operating profit after tax;

WACC is weighted average cost of capital, and IC is invested capital.

To calculate MVA the bellow formula was utilized:

$$MVA = \frac{EVA_1}{(1+C)^1} + \frac{EVA_2}{(1+C)^2} + \frac{EVA_3}{(1+C)^3} + \dots + \frac{EVA_n}{(1+C)^n} \quad (3)$$

Or:

$$MVA = \sum_{i=1}^n \frac{EVA_n}{(1+C)^n} \quad (4)$$

In this formula C is equal with cost of capital. The amounts of companies' stock price were compiled from the companies' annual reports from 2010 up to 2012. The calculated amounts of EVA and MVA along the stock price are shown in Table 1.

Table 1: The calculated amounts of the research variables

Firma's Name	2010			2011			2012		
	MVA	EVA	P	MVA	EVA	P	MVA	EVA	P
SAIPA	-13263794.9	-3596951.42	1625	-6848184.5	-1622120.28	2020	17539736.8	3624282.236	2902
FARS KHODRO	-687131.461	-390608.515	1146	-2550144.7	-801405.131	1731	12295412.67	921719.3573	2253
LOABIRAN	293935.3406	27266.60293	3666	193241.3514	31341.05302	2573	228512.0645	23004.49886	1852
JOOSHKAB	108786.9694	14779.14602	3509	96180.59795	17591.28838	3333	207791.3363	17945.85038	7725
RAYAN SAIPA	549562.2859	65687.45075	2622	-173261.323	-17567.8704	2808	1180764.202	89027.28266	2116
SIMAN TEHRAN	2580184.359	376679.6307	2180	3999877.092	484214.181	4159	2907625.886	274590.1263	5478
IRAN MES	1172543.819	466472.2153	2630	38299096.29	4444684.017	7299	26049770.99	5287111.355	4120
FOLAD MOBARAKE	-1846121.79	-482536.132	1754	125162707.2	10827444.71	3198	42974907.76	6122704.382	1885
IRAN TRANSFER	12602169.61	603481.5691	8550	6712941.628	269001.8917	7995	631493.6445	30738.84148	7995
SIMAN SEPALAN	139889.329	15837.80371	1484	1538080.223	141542.8167	2695	3386589.093	271879.2982	4215
ARAK PETROCHIMI	-5118772.63	-1041213.27	2463	-2829070.28	-487835.597	5355	5093533.79	562319.1683	8044
SAIPA AZIN	-161709.272	-31743.9568	1169	-182655.434	-43843.3128	1172	-35374.456	-7849.04088	1619
AMIRKABIR FOOLAD	-494836.411	-69707.4346	650	4496832.59	59010.53018	1174	5435202.644	102185.4507	931
IRANKHODRO DIESEL	-1838574.72	-327915.116	924	3280167.457	404817.876	1533	16390492.49	1133560.213	3605
IRAN CHINI	78586.33807	17167.68533	1347	401834.2371	56964.43762	1099	964109.3014	79439.13598	924
MAPNA	27358240.25	2450508.049	1254	39070540.53	1815281.062	1294	19636985.27	684117.7971	1294
IRAN LISING	452971.1002	26503.67947	1502	803604.0075	37649.51911	1639	528518.2973	31726.62519	1214
TOKA FOOLAD	63216.94304	16705.2792	1051	600862.9198	70239.81938	1725	1878172.892	101018.0863	5635
MASHHAD RING	-16659.1929	-2726.96163	879	278270.5854	32314.8899	975	276453.323	28366.23255	1062
RENA	-1046517.82	-284782.106	1103	3227904.886	413132.2277	1376	1070952.061	173690.146	1654
BOO ALI	-975071.4	-136029.376	356	703080.1593	39219.48179	867	404503.0726	25220.46287	727
BENRAN	2889441.844	550693.3895	12435	7548413.37	705939.591	15860	6949877.932	451007.7698	18079
FARS SIMAN	2259596.722	302271.672	1415	24402212.83	1040367.331	1976	509767.8367	72458.18082	2858
BENSHAHR INDUSTRY	10156087.45	530165.6247	925	5980021.925	549660.6441	961	-823589.64	-81469.945	1130
MAHRAM	235517.7194	29053.47774	1000	496787.4895	29968.59182	3844	922765.0688	27047.48466	3844
BAHRMAN	3451009.782	160744.7211	1024	163405.4798	15009.80212	1023	-81630.8478	-7718.25113	1001
IRAN AUTOMOBILE	-141571.781	-57929.0496	1705	-38956.2286	-14389.3634	2043	159249.324	43658.66585	2508
EAST CEMENT	-1024761.9	-150584.839	1717	3432464.797	162889.1248	4552	-384668.556	-46812.6429	3721
ISFAHAN PETROCHEMICAL	760673.2744	85686.36911	5315	-625568.106	-94310.282	6030	2996946.989	312454.4812	8172
JABER PHARMACEUTICAL	1275191.869	113946.8294	5454	1885315.828	146674.7741	7492	2361119.736	182955.4682	9196
ZAMIAD	-965867.13	-298644.289	1218	-2357880.73	-1164753.81	2008	-1541682.31	-634962.737	2704
BAHRMAN GROUP	1693016.342	336827.3048	779	-2642020.82	-417292.128	1013	-2353241.78	-379732.692	1243
GHADIR	23235546.91	2292113.115	1369	30853500.28	2472064.405	1677	76251834.01	1589444.721	3214
BAREZ	2823163.864	265763.251	1388	2336739.578	176289.7293	1459	2307049.863	143587.672	2569
IRAN KHODRO	92768091.03	6761417.055	1333	90583151.55	2959635.342	1624	68320066.32	3877068.98	2983
BENHOUSH	996435.1741	141175.6265	6645	2033603.182	161785.1657	13311	2736628.09	122718.2618	15365
FARABI PHARMACEUTICAL	670038.7991	92823.09014	6461	561951.262	64342.84705	7548	1417747.128	143196.0627	12318
NEGIN TABAS	-113858.505	-23711.5175	3881	136593.9024	13614.79014	6076	135728.4625	24515.62176	5683
BOOTAN	2214710.256	163496.076	2606	1441413.34	188653.4512	3375	7980966.878	155768.5564	1032
PARS KHAZAR	-202126.086	-38196.0778	1581	-372506.924	-51192.6179	2137	-113678.002	-19382.8212	2649

4. Model

Based on the research hypothesis which is, EVA and MVA are correlated to companies' stock price, the bellow regression model was assumed:

$$P = \alpha + b_1 \cdot \text{Ln (EVA)} + b_2 \cdot \text{Ln (MVA)} + \epsilon_0 \tag{5}$$

Where Ln is Naperian logarithm, α is the fixed value of model, b_1 is the regression coefficient of stock price than EVA, b_2 is the regression coefficient of stock price than MVA and ϵ_0 is the error rate in period of t.

The statistical outline of the research hypothesis is:

$$\begin{cases} H_0 : b_1 = b_2 = 0 \\ H_1 : \text{At least one } b \text{ is not equal zero} \end{cases}$$

The H_0 hypothesis indicates the coefficients of the independent variables of the regression model are not meaningful. And H_1 shows at least one of the independent variables of the regression model is meaningful. Before the evaluation of the regression model, classic suppositions of the model were surveyed and for evaluating the dissonance of variances, Bartlett test was applied. The results of the Bartlett test are shown in Table 2.

Table 2: Bartlett test of the model

Year	F - statistic	Probability	Test Results
2010-2012	32.26	0.64	Variances Similarity

As Table 2 depicts, the variance of disruption components are identical. The test also demonstrates that multicollinearity does not exist. Furthermore, the outcomes from F-Limer test and a Hausman test postulate the model must be analyzed through fixed impacts.

5. Analysis

As Table 3 indicates, the probability statics of the regression model for EVA variable is less than 5%, therefore the H_1 supposition which emphasized on existing a relationship between EVA and

stock price in Tehran Stock Market is accepted. Considering the coefficient of independent variable is positive, this relationship is direct.

Furthermore, the probability statics of the regression model for MVA variable is also less than 5%, therefore, the H_1 supposition which implies the relationship between MVA and stock price in Tehran Stock Market with 95% confident level is proved. Same as EVA, the coefficient of MVA is positive, therefore this relationship is direct too.

Table 3: Analysis of the model

The Hypothesis is Accepted or Reject	Year	α	Independent Variable				The Coefficient of Determination	The Adjusted Coefficient of Determination	F-statistic (Probability)	F-Limer (Probability)	Hausman Test (Probability)
			EVA		MVA						
			b_1	Statistic (Probability)	b_2	Statistic (Probability)					
Accepted	2010 - 2012	2.7	0.41	2.88 (0.026)	0.45	4.32 (0.039)	0.9	0.83	11.55 (0.003)	12.7 (0.014)	14.21 (0.051)

Through analyzing the defined regression model for the research hypothesis, the meaningful correlation of EVA and MVA with stock price of companies in Tehran Stock Market is asserted. The results of this study confirm the interdependence of EVA and MVA as some previews studies had proved that (e.g. Walbert, 1993; Grant, 1996; Milunovich and Tsuie, 1996; Davies, 1996; O’Byrne, 1997; Tully, 1993, 1994, 1998, 1999).

This research demonstrate that by enhancement of EVA and MVA in the companies’ financial performance, their stock price in Tehran Stock Market increase and vice versa.

6. Discussion and Conclusion

The purpose of this study was to investigate the potential correlation of EVA and MVA as the prominent value based measures of performance and stock price of companies in Tehran Stock Market. The study asserts that there is a positive interdependence of EVA and MVA with stock price. This implies that a value based measures of performance could be used to understand the stock price behaviour.

General findings of the study support some previous studies (e.g. Walbert, 1993; Grant, 1996; Milunovich and Tsuie, 1996; Davies, 1996; O'Byrne, 1997; Tully, 1993, 1994, 1998, 1999) that emphasized on existing a correlation between EVA and MVA and stock price and also the relationship between EVA and MVA with each other.

EVA and MVA are appropriate measures which should be considered by investors when they want to make decision about their stocks in comparison with the traditional measures of performance. In general, companies and investors should change their mindset and focus on value based measures like EVA and MVA for assessing the corporate performance.

7. Limitations

Although the current study makes several meaningful contributions, but there are some limitations too. First, the sample period of the current research is short term (3 years) from 2010 up to 2012, therefore, there is an uncertainty to expand the research results to a longer period.

Second, the sample of this research is limited to 40 companies in Tehran Stock Market. This corroborates that may be the results do not work for a bigger sample and more companies.

The last limitation refers to Tehran Stock Market situation in comparison with other improved stock markets of developed countries in Europe and United States of America. Actually, the Tehran Stock Market is new established and the number of stocks for bargaining is limited. This ongoing situation of Tehran Stock Market may affect the stock price behaviour from various aspects apart of performance measures like environmental and psychological factors, these facts can affect the results of this research.

8. Recommendation

According to the limitation of the sample period which was 3 years (2010, 2011 and 2012) a longer sample period is recommended for future researches. It also can be recommended for better validation and reliability of the results, future researches focus on bigger sample of companies in Tehran Stock Market.

At the end, for better understanding the quality of value based measures of performance and better analyzing their role in evaluating companies performance and also their effect on stock price in stock markets, more surveys is recommended on the other value based measures of performance like, Economic Profit (EP), Cash Flow Return on Investment (CFROI), Shareholder

Value Added (SVA), Cash Value Added (CVA) in Tehran Stock Market and also other stock markets in the world.

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