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Investigating the effect of economic value added on reporting of financial information

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Abstract

In recent decades, success and life of firm considerably depend on the level of the promotion of the values of these firms. Now, companies should be involved in a period in which a new economic framework should be established and be able to reflect value and enhance the profit. The purpose of this study is to investigate the effect of economic value added on reporting of financial information. Selected instance is composed of 71 companies between the years 2008-2011 among accepted companies onthe Tehran Stock Exchange. In this study, the audited semiannual financial statements, quarterly financial performance and the formation of annual general meeting were regarded as dependent variables, economic value added as independent and firm size and debt ratio as control variable. Results of the present research indicated the effect of economic value added on the formation of annual general meeting while there was no effect of economic value added on semiannual financial statements audited and quarterly performance.

Keywords: Economic value added, semiannual audited financial statements, quarterly performance, formation of annual general meeting

Introduction

A company that can manage its capital/asset the best can help its stock holders earn more. At this age of quick improvement, the future is for those who make use of the most appropriate tools in their calculations and obtain the most logical results. At present, what needs a re-examination is the validity of methods that apply for desirable designation of social resources and investing people's saving inefficient activities so that they would subsequently result in social and economic growth and would merit people's confidence in them in a way that people would invest their capital at the time a proper investment chance comes their way. Since peoples – whether actual or legal – economic decisions are based on the information obtained from accounting systems as well as the analysis made by financial expert, such information can only be effective in decision making if it reflects the performance of the company in real terms. Therefore, as things stand right now, it is very important to apply a different economic framework and subsequently, implement management systems which take up the prior goal in business and set the measures- for decision-making and evaluating the performance of managers and staff- which fit the company's ultimate goal. Therefore, investors have always been in need of information they can benefit from when making strategic decisions, especially which the decisions should financially be made in such a way that they result in creating value in the company. On the other hand, search to find a superior feature in evaluating the firm is an obvious aspect of financial research at the present time. Right now, company managers face such circumstances that oblige them to set up a new economic framework in their companies, a framework which would reflect better value and would hand in more earnings. That is why, finding an index with which one can explain the company performance with an almost logical certainly is a necessity. To evaluate management performance, various features are presented, one of which is economic value added (Stewart, 1999).

Value- based management provides precise and clear tools for assessment of value creation in

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the organizations the framework of the value based management can be said to include the economic value added; cash value added, return of cash flows resulting from investments, and analysis of value for stockholders. A company can choose any of these 4 tools for its future economic framework. This choice will have important effects on management resources, strategic choice, and the approaches of investors, analysts, and media... toward the company. Steward believes that economic value added is the best scale to measure internal and external performance and that this scale should replace previous accounting measures like earnings and capital resulting from the operation. This company believes that earnings per share, rate of return of common stock holder's equity and the rate of return on investment should be put aside and instead, economic value should be used, which determines the price of the shares and is a basis to measure performance. In his speech in 1994, Mr. Stewart says that "economic value added is the best measure for raising capital and functions better than other scales which are based an accounting to determine the changes in the value of stock holder's wealth".

Today, numerous books and articles are written about economic value added. In the magazine, fortune, the concept of economic value added is introduced as the real key to raising capital. In another work, this measure is referred to as a new method of mercantilism (Tully, 1993). In addition, in 1994, American accounting association proposed that Jenkins committee uses this concept for external reporting in order to improve (financial) reporting of those companies that apply internal added value for their internal decision – making . In professional and administrative section, too, numerous companies in the world pay attention to added value and take it into consideration when it comes to measuring internal performance, comparing internal sections' performance, and planning accounting earnings based plans. Although the economic value added is a novel concept. Their theoretical bases are not new.

That a company should create more earnings than the capital charge has long been a matter of interest for economists (Stewart, 1999). Among all the approaches to measure performance on the basis of net income, economic value added has drowned a lot of attention to itself. The underlying philosophy of economic value added is that since stockholders expect to be rewarded in return for providing financial resources and taking business risks, operating earnings of the company should be more than the capital charge to create value for stockholders. In other words, the measure to evaluate performance is called economic value added, which accurately determines the ways through which the value of a company increases or diminishes. Economic value added shows the net income which is obtained through subtracting the capital charge from the earnings of the operation. The basis of added value is that value is created when the rate of return of the capital is more than the overall capital. Capital charge reflects the investment risk. If the net income of the company is less than the capital charge which is used, the value of the company will decrease and stockholders will become poorer. On the contrary, when the net income of the company is more than capital charge, the value of the company increase and consequently, the stockholders become richer. The most basic difference between economic value added and other operational scales are that economic value added in based on economic earning and that it tries to bring accounting earning closer to economic earning. (Fadayi, 2005).Therefore, to obtain an accounting earnings, it needs financial accounting data of the companies. However, financial accounting data – as a direct input of controlling systems of the company- regulates managers' styles in selection of projects and investment opportunities, and prevents any misusing of investors' resources. Furthermore, accounting data results in the accumulation of data and supports the desirable performance of the capital market (Wattes, 2003). Based on the scientific research, effective controlling of the management board is one of stimulates that results in increase of qualitative characteristics of financial data due to the fact that it allows for more independence in decision making. Being related, which is one of the characteristics of financial data means that reported data should be able to help users' former expectations of financial status and future performance of the company. The relativity of the reported data is affected by the quality of punctuality. In other words, the less the quality of punctuality is, the less the usefulness of the data comes. Therefore, effective controlling imposed by managing board and administrative manager will lead to better quality of the financial data and faster (financial) reports (Hasas, 2005). Financial data recorded in fundamental (financial) reports will be useful only when it is reliable and can help its users predict future cash flows of that economic enterprise and is related to their decisions. The feature of being reliable is one of the qualitative features of accounting data and is used in the process of assessing economic events and incidents and in reporting

them in monetary units; it leads to efficacy and just presentation of accounting data. However, it is clear that not all the accounting data are measured with a high rate of reliability, but that each is assessed and reported subjectively. Figures and financialreports are part of the required data in the process of decision – making in a way that according to the first statement of (financial) reporting concepts, the major goal of accounting is to provide data that would express financial effects of operational transactions and effective events on financial status as well as the results of the economic enterprise. This way, investors, holders and other users are helped in their decision – making. Through reporting the financial activities of the economic enterprise, the accounting system renders it possible for them to have some data others are not aware of (Wattes, 2003).

In this paper, we have tried to study the effect of added value on reporting financial data on companies that are recognized by Tehran securities exchanges.

Review of Related Literature

Uyemura (1996) investigated a complete ranking of America's 100 largest bank holding companies according to their shareholder value added. He in his research, the first of its kind for the banking industry, defines an EVA measurement for banks and presents evidence of EVA's stronger correlation with bank market values than traditional accounting measures like ROA and ROE.

Biddleand Bowen (1997) tested assertions that Economic Value Added (EVA) is more highly associated with stock returns and firm values than accrual earnings, and evaluates which components of EVA, if any, contribute to these associations. Relative information content tests reveal earnings to be more highly associated with returns and firm values than EVA, residual income, or cash flow from operations. Incremental tests suggest that EVA components add only marginally to information content beyond earnings. Considered together, these results do not support claims that EVA dominates earnings in relative information content, and suggest rather those earnings generally outperforms EVA.

Fernandez (2001) analyzed 582 American companies using EVA, MVA, NOPAT and WACC data provided by Stern Stewart. For each of the 582 companies, he had calculated the 10-year correlation between the increase in the MVA (Market Value Added) each year and each year's EVA, NOPAT and WACC. For 296 (of the 582) companies, the correlation between the increase in the MVA each year and the NOPAT was greater than the correlation between the increase in the MVA each year and the EVA. There are 210 companies for which the correlation with the EVA has been negative! The average correlation between the increase in the MVA and EVA, NOPAT and WACC was 16%, 21% and -21.4%. The average correlation between the increase in the MVA and the increases of EVA, NOPAT and WACC was 18%, 22.5% and -4.1%. He also finds that the correlation between the shareholder return in 1994-1998 and the increase in the CVA (according to the Boston Consulting Group) of the world's 100 most profitable companies was 1.7%

Huang (2008) extended Ohlson's model by adopting Economic Value Added (EVA®) for excess earning abilities and adding intellectual capital for firms listed on Taiwan Stock Exchange. The research results show residual income based on EVA® is no better than that based on current GAAP in its capacity to explain variations in a firm's market value. Moreover, He also finds intellectual capital does provide incremental information for the evaluation of stocks.

Mocciaro Li Destri, Massimo Picone, and Minà (2012) proposed a performance and cost measurement system that integrates the Economic Value Added criteria (EVA) with Process Based Costing (PBC). They discuss the role of EVA-PBC methodology in bringing strategy back into financial performance measures.

Asadkhan (2012) exhibited the relationship between stock return and economic value added (EVA) as compared to the relationship with other variable such as net income (NI) and operating cash flow (OCF) within the Pakistani stock market. It is evident from the study that the contribution to Operating cash flow is higher as compare to EVA and NI which is a prediction of the least contribution of the EVA in stock return as shown by the individual regression analysis of these variables with stock return. Finally EVA negatively contributes to the stock return as compare to the other variable as shown both by regression and Pearson correlation.

Methodology

The main hypothesis is added economic value which is the impact on the timely reporting of financial information. The Sub-hypotheses of the present study are the following:

1. Economic Value added is the impact of publication of timely semiannual financial statements audited

2. Economic Value added is the impact of publication of timely quarterly performance

3. Economic Value added is the impact on formation timely of annual general meeting

Variables of the study

Dependent variables (reporting of financial information):·

Formation timely of annual general meeting: The annual general meeting on time last (term specified

By the Stock Exchange of Tehran)

$$TM_{i,t} = (1 - \frac{DS_{i,t}}{124}) * 100$$

Publication of *timely semiannual financial* statements audited: According to the regulations of the Stock Exchange of Tehranevery company is required to declare semiannual financial statements audited a maximum of 60 days after the end of the six month period of course, that whatever company Publication do semiannual financial statements audited at a time last (term specified by the Stock Exchange of Tehran) Would be more timely publication of *semiannual financial* statements audited

$$ES_{i,t} = (1 - \frac{DFI_{i,t}}{60}) * 100$$

Publication of timely quarterly performance According to the regulations of the Stock Exchange of Tehran every company is required to declarethe quarterly performance of the company up to 30 days after the end of the quarter sections, that whatever company publication do quarterly performance at time least (term specified by the Stock Exchange of Tehran),it would be more timely publication of quarterly performance of the company.

$$AS_{i,t} = (1 - \frac{\sum(\frac{DPI_{i,t}}{PQ_{i,t+30}})}{4}) * 100$$

Independent variable (Economic Value Added) EVA

Stowot in 1991 offers comprehensive explanations of Theoretical Foundations of Economic Value Added and displays numerous examples of how to empirically estimate the economic value added. Also Dayrk in 1997 made a good effort about, how to calculate Economic Value Added in practice. Economic Value Added (EVA) is calculated in two ways:

1. (Weighted average cost of capital - the rate of return on investment) *capital are used-EVA

2. (Weighted average cost capital * used in capital) - Operating profit after tax – EVA

The first method is called Bsty method and the second method is called the cost of capital method. In the present study, the second method is used to calculate EVA. According to the formulation triggers in the EVA model is divided into three main groups.

1. Profitability of company operations.

2. Weighted Average of Cost of Capital:

$WACC = (w_d * k_d) + (w_e * k_e)$ k_d, k_e

w_d, w_e Respectively Percent contribution (weight) of debt, common stock

k_d, k_e Rate of the cost of debt, common stock

Where p_0,the stock price at time zero, D_1, Dividends paid in the end of first year, g, Rate of Profit, k_e, Expected rate of return on common shareholders) In this paper, is estimated using the geometric mean of profits growth rate during 1387-1390.

In this study, for the calculate the rate of cost of debt, interest rates, net of tax is used as the rate of all firms› cost of debt.(23% rate of Financing, 25% rate of tax)

3. Amount of capital employed: This is all sources of corporate financing that there is in the left of balance sheet. These sources include common stock and all interest-bearing debt capital of the company that is (where) formed the structure of the company.

Control variables

Company Size: Logarithm of the total assets of the company

SF=LN(assets)

Debt ratio: Total liabilities divided by total assets and this ratio represents the assets that have been funded by debt.

$$LEV = \frac{\text{sum liability}}{\text{sum assets}}$$

Materials

Research was experimental in terms of the application and it is descriptive and correlational in terms of research methods. The companies considered for the purpose of this study are dealing with real data to provide information about listed companies in Tehran Stock Exchange. According to the study, variables used were related to the company financial statements and variety of sources including annual reports and data in software company Rahavardnovin and Tadbirpardaz. And, to obtain the required information used for the processing of assumptions, magazines, calendar published in Tehran Stock Exchange of letters and papers, and foreign and domestic online sources and dissertation were used.

Population

The population consisted of all companies listed on the Stock Exchange However, due to the large Population size, there is some inconsistency between the rules of the Stock Exchange systematic elimination was used by selecting 80 companies with the following conditions:

1. The company was listed on the Tehran Stock Exchange Since 2004.
2. Symbol of Company has not closed more than four months.
3. The end of the financial year is Mar 20.
4. Would not be considered financial companies such as banks and investment groups.

Results and Discussion

The purpose of this section is to provide a statistically data representative of the variable characteristics in the companies. This issue is important in two respects:

First, we have to deal with the statistical population and we should have the basis for our analysis. Second, the results should be generalized.

Table 1.Descriptive statistics of the research variables

SF	LEV	EVA	ES	TM	AS	
11.34	0.16	-252217.7	0.00	0.00	0.07	Min
19.62	0.98	5920684.5	0.7	0.8	0.84	Max
13.95	0.62	269744.9	0.291	0.254	0.538	Mean
1.795	0.1623	7.56	0.227	0.2002	0.153	SD
1.088	-0.493	5.23	-0.137	0.375	0.497	Skewness
1.366	-0.613	31.492	-1.449	-1.06	0.198	

Descriptive statistics of the variables in this table indicate that 54% of companies are issued in a timely manner operation of financial statements and approximately 29% of companies surveyed are issued in a timely quarterly financial statements. And, approximately 25% of the company's constitutes an annual general meeting in time and 62% of the company's assets is financed through liabilities. To calculate the regression equation in each of the following assumptions VAR_{it} is dependent on the assumption EVA_{it} isvalue added LEV_{it} Debt ratio, SF_{it} Firm Size and each β_i coefficient of each variable.

Table 2. Results of the first hypothesis

sig	t	Coefficient β	
0.00	5.248		Constant
0.261	-1.13	-0.109	EVA
0.031	-2.188	-0.211	SF
0.004	-2.924	-0.253	LEV
R^2=1.26	F=6.925		

The results of the first hypothesis indicate that about 6% of the variation in the dependent variable explained by the independentvariables.The value added does not affect on the timely publishing audited quarterly financial statements.

Table 3. Results of the second hypothesis

sig	t	Coefficient β	
0.00	7.159		Constant
0.633	0.479	0.048	EVA
0.136	1.501-	0.150-	SF
0.01	-2.63	-0.236	LEV
R^2=0.062	F=3.728		

The results of the second hypothesis suggest that about 3% of the variation in the dependent variable explained by the independent variables. The value added does not affect on the timely publishing of the quarterly operation of the financial statements.

Table 4. Results of the third hypothesis

sig	T	Coefficientβ	
0.00	3.972		Constant
0.015	-2.467	-0.22	EVA
0.25	-1.156	-0.115	SF
0.122	-1.557	-0.154	LEV
R^2=0.077	F=4.403		

The results of the third hypothesis suggest that approximately 4% of the variation in the dependent variable explained by the independent variables and the value added can have an influence on the time of the annual general meeting.

Conclusions

In this study, we investigated the effect of economic value added on reporting financial information .The results of the regression analysis show the effect of economic value added on formation timely of annual general meeting but no effect of economic value added for publication of timely semiannual financial statements audited and publication of timely quarterly performance.

Suggestions for further research

With regard to Iran, despite limited resources, the rate of cost of capital in investment decision making cannot be ignored and EVA index is also very impressed of capital costs. It is suggested to determine the remuneration of directors of EVA-based model. It is suggested to determine the remuneration of directors used on EVA-based model.

The results of the research indicate the concentration of capital structure in the Tehran Stock Exchange. One reason for the very important in this case is low public confidence in Iran to capital markets. One way of dealing with this uncertainty is the correct implementation of appropriate mechanisms for management companies. It is suggested that the Stock Exchange Organization requires companies to comply and timely disclosure of financial statements quarterly, in order for the users of financial statements to be better able to take correct decisions.

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