

Explain The Relationship Between Corporate Governance on Economic Value-Added (EVA) and Created Shareholder Value (CSV)

Jafar Nekounam^{*1}, Reza Sotudeh², Zahra Kohandel³

^{*1}Department of Accounting, khomein Branch, Islamic Azad University, khomein, Iran

²Department of Accounting, Payame Noor University, I.R. of IRAN.

³Department of Accounting, Arak Branch, Islamic Azad University, Arak, Iran
jf_nekonam64@yahoo.com

Abstract: The goal of this research is study of relationship between economic value-added (EVA) with created shareholder value (CSV) and relationship between internal and external corporate governance with difference between economic value-added and created shareholder value. To do this, a sample including 49 companies accepted in Tehran Securities Bourse was randomly selected after systematic deletion. Multi-variable and two-variable regressions were used to study relationship between variables. The findings show that there is no relationship between economic value-added with created shareholder value by confidence level of 95%, and there is no relationship between corporate governance with economic value-added and created shareholder value. Also, there is no relationship between ownership percentage of institutional shareholders and ownership percentage of board of directors, ratio of unbounded managers to board of directors with difference of economic value-added and created shareholder value in all four groups.

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1. Introduction

Financial reports are important sources for economical decision-making for managers, investors, creditors, etc. Since information is not equal for users, there will be an information asymmetry between managers and investors [9]. Information asymmetry is a situation in which managers have more undisclosed information about different aspect of a company than investors. This provides incentives and opportunities for manager for profit management. Accounting is one of the information sources that decreases information inefficiency of market by offering related and reliable information and provides information symmetry [11].

After emergence of problems in ownership, information must be immunized to preserve public, owners, and managers' benefits. Thus, different tools were used such as making a theoretical framework, internal controls, internal and independent auditing, unbounded managers to board of directors, long-term reward procedures, and legislation by government. However, there are many problems. Perhaps it is because of lack of corporate sovereignty that provides increment of company value and coincides all above criteria. Corporate sovereignty, before other things, is going to protect benefits of shareholders against managers of organizations. Corporate sovereignty is a bridge on the gap between benefits of leader of company (large shareholders and other shareholders) and decreases capital cost. On the other

hand, it measures performance based on value, such as EVA and remained income (RI) by concentration of finished price of capital and credit (or value) [19]. If EVA is positive, then a company created shareholder value. But a negative EVA indicated destruction of richness of shareholders [18].

If a company cannot show an economical profit at least equal to its capital price, richness of shareholders will decrease. If manager considers special investment opportunities in projects, products, or processes, it would divide sum of capital price among activities that calculate information of finished price with an acceptable approach. This assignment of capital price to activities is done conventionally. Finished price (costs) could be deviated, especially when capital finished price is not proportional to operational finished price.

There were studies about corporate leadership mechanisms, company performance, profit and its quality, and company value in Iran. However, one of the problems that has not been considered is concept of CSV and its difference with EVA. Weather the difference between these two variables can be clarified or minimized by corporate leadership mechanisms? Regarding to the role of corporate leadership in growth of companies, distribution of financial risk, and decrement of financial cost, recognition of its effective factors is very important. In this research, we study relationship between

corporate leadership mechanisms with convergence and divergence of EVA and CSV [16].

2. Literature and theoretical fundamentals of research

2.1. Economic Value-Added (EVA)

Stern & Stewart have recently introduced concept of economical profit under title of EVA. EVA has positively founded its path through trade and financial journals as a multi-purpose tool. Specially, EVA has been used as a tool to compensate services of managers and decision-making about capital budget. EVA has been praised in management's academic world by investment companies for financial analyze to determine if they are good/bad investors [10]. Currently, EVA is the most common economic profit criterion. However, there are criticisms for it, so that it was said that EVA is not a new criterion, but it offers the previous concepts in another form. In fact, EVA is the remained profit obtained by deduction of capital cost from operational profit (which is the only performance scale that directly relates with market value) [4].

2.2. Corporate Governance

To obtain a comprehensive definition for corporate sovereignty system, we should study its completion process. There are different definitions for corporate sovereignty. Study of existing literature shows that there is no agreed definition for it. Also, there are different definitions if different countries even in USA or Britain. Existing definitions are in a broad spectrum [3].

Limited views are in one hand and broad views on the other hand of this spectrum. In limited views, corporate sovereignty is limited to relationship between company and shareholders. This is an old pattern that is expressed as "representation theory". On the other side of this spectrum, corporate sovereignty is a network of relations not only between company and shareholders, but between company and other beneficiaries such as staffs, customers, sellers, and holders of debentures. This view is expressed as "beneficiaries theory" [5].

In continue, we mentioned few definitions for corporate sovereignty. These definitions begin from limited view, goes toward financial view that emphasized on relations between shareholders and manager, and it finally finishes with a broad definition including corporate response against beneficiaries and society.

In 2004, International Federation of Accountants (IFAC) has defined corporate sovereignty: "Corporate sovereignty is a number of responsibilities and styles used for board of directors and bounded managers to indicate the strategic path ensuring goal access, risk control, and responsive consumption" [6].

Cadbery (1992) defined corporate sovereignty as "a system by which companies are led and controlled".

Parkinson (1994) said: "Corporate sovereignty is the process of monitoring and control to ensure performance of manager according to benefits of shareholders".

International Money Fund (IMF) and Economical Development Cooperation Organization (EDCO) have defined corporate sovereignty in 2001 as "Structure of relations and responsibilities among shareholders, board of directors, and managing director to develop competitive performance to attain primary cooperation goals" [7].

Robert Mongs & Nel Mino (1995) defined corporate sovereignty as "A tool by which each society determines its movement direction. In other words, corporate sovereignty is relations between different groups to determine company direction and performance. Main groups are shareholders, managing director, and board of directors. Other groups are staffs, customers, sellers, creditors, and society". [21]

Wolf Seven (2000), the past boss of International Bank has said: "Corporate sovereignty is going to promote equity, transparency, and responsiveness".

A definition for corporate sovereignty was mentioned in Financial Times in 1999: "Corporate sovereignty is relation between a company and its shareholders in its limited view, and is relation between a company and society in its broad view".

Trigger (1984) wrote: "Corporate sovereignty is not only limited to administration of a company's operations, but it relates to leading, monitoring, and controlling performances of executive managers and their responsiveness to all beneficiaries".

Limited definitions for corporate sovereignty are concentrated on capabilities of legal system of a country to preserve rights of minor shareholders (such as definitions of IFAC and Parkinson). These definitions are basically suitable to compare inter-country comparisons and laws of each country plays an important role in corporate sovereignty system" [12].

Broad definitions for corporate sovereignty emphasize on a broader responsiveness level against shareholders and beneficiaries. Definitions of Trigger (1984), Maginson (1994), and Mongs & Mino (1995) are more accepted by experts. Broad definitions show responsibility of companies against society, future generations, and natural sources.

In this view, corporate sovereignty system is an intra- and extra-organizational equilibrium lever for companies that ensures they do their responsibilities against all beneficiaries. Also, a logical inference in

this view is that shareholders' benefits is only obtained by beneficiaries' benefits [17].

Study of these definitions indicates that corporate sovereignty is a multi-disciplinary concept and its final aim is to achieve the four cases in companies: responsiveness, transparency, equity, and rights of beneficiaries [5].

The following definitions can be offered according to the above one:

"Corporate sovereignty is laws, rules, structures, processes, cultures, and systems that provide responsiveness, transparency, equity, and rights of beneficiaries". As mentioned above, the final aim of corporate sovereignty is to achieve these four cases in companies. Responsiveness is a large goal of corporate sovereignty. The other aims are achieved by suitable responsiveness [8].

2.3. Created Shareholder Value (CSV)

The goal of investors is obtaining profit and maximizing their money. By investment, investors postpone their capital consumption to obtain more usage facilities in the future. Thus, they invest in assets with high return and low risk. Return rates of securities are main factors of selection of an investment. If return rate of an investment is more than its expected return rate, value of invested asset is more and it produces more richness. This value-added is called "produced richness for shareholder" [4].

3. History of research

Wates & Zimmerman (1986) propounded effect of political costs on selection of managers from accounting methods. According to their assumption, managers avoid from political costs in selection of accounting methods. By enlargement of a company, political costs for management measures will also increase. Thus, it is expected that enlargement of a company cause decrement of management's profit [20].

Nurash & Karami (2004) in a research titled "Study of relationship between operational cash flows, operational profit, and EVA with CSV" examined relationship between operational cash flows, operational profit, and EVA with CSV, and evaluated reliability of this index in Tehran Securities Bourse. Their results show that EVA in companies accepted in Tehran Securities Bourse, EVA is a better index to anticipate CSV, and it can show to shareholders the level of interference of managers in their richness. Another result of this research is that accounting indices up to now are not enough for increasing challenges of capital markets and owners, and EVA is an index that can be replaced for other management evaluation indices [2].

Yazdaniyan (2006) showed that when ownership level of institutional investors in companies is more

than 45%, profit will decrease. In addition, their finding show that there is no significant relationship between unbounded managers in board of directors, lack of managing director as president of vice-president of board of directors, existence of internal auditors, and profit management. The results show that only existence of institutional shareholders affect decrement of profit management, while existence of unbounded members in board of directors, separation of role of managing director and president of board of directors, and existence of internal auditors will not affect profit management [13].

Esmaeili (2006) studied relationship between profit quality and some aspects of leadership system in 135 companies accepted in Tehran Securities Bourse for 2002-2004. Profit quality was evaluated upon criterion of obligated items. After test of assumptions, it was found that there is no relationship between profit quality and ownership level of members of board of directors. However, there is a nonlinear relationship between them. Test of assumptions showed that number of unbounded managers and ownership level of members of board of directors play no role in promotion of profit quality of companies accepted in Bourse [14].

Rezaei (2008) studied effect of board of directors as one of the tools for corporate leadership system on 72 companies accepted in Tehran Securities Bourse for 2003-2005. The measurement criteria were effect of board of directors on performance of company, ratio of unbounded managers in board of directors, return of shareholders' rights, net and gross profit margin, sell growth average, and net profit. He found that there is no significant relationship between ratio of unbounded members in board of directors with other performance criteria [15].

Ebrahimi Kordlar (2008) studied relationship between corporate ownership and company value. The goal of this research was study of role of institutional shareholders and ratio of unbounded managers as criteria for effect of corporate ownership on company value. So, he examined information of 97 companies for 4 years. The findings showed that there is a significant relationship between institutional shareholders and company value. Also, since there is at least one unbounded member in board of directors, there is a significant relationship between unbounded managers and company value [1].

4. Assumptions of research

1. There is a relationship between EVA and CSV.

2. There is a relationship between corporate leadership mechanisms with difference of EVA and CSV.

3. There is a relationship between ownership level of institutional with difference of EVA and CSV.

4. There is a relationship between ownership level of board of directors, ratio of unbounded managers in board of directors with difference of EVA and CSV.

5. Methodology of research

This is an application research. It has a correlation method. The goal of this research is study of relationship between EVA with CSV and relationship between internal and external corporate leadership mechanisms with EVA and CSV. The assumptions were examined in confidence level of 95%. It should be mentioned that a non-linear test was also done between the variables. Regarding F statistic and the significant level, it was found that linear regression was the best fit for the variables.

5.1. Data gathering method

In this method, library and archives were used to gather data. The research tools were financial statements, notes, and financial reports of companies by Rahavard Novin software and site of Tehran Securities Bourse. After classification and calculation in Excel, data was analyzed by SPSS.

5.2. Research model and measurement of variables

In this research, EVA and CSV were obtained for sample companies, and they were classified in four positive and negative groups:

- Group 1: EVA>0, CSV>0
 Group 2: EVA<0, CSV<0
 Group 3: EVA>0, CSV<0
 Group 4: EVA<0, CSV>0

By gathering features for corporate leadership mechanisms of these companies, we anticipate that companies in each group have similar mechanisms. Then we test the assumptions by two following analytical models.

5.2.1. Regression model I

In this model, we show that there is relationship between EVA and CSV.

Model I: $CSV_{i,t} = \alpha_0 + \alpha_1 EVA_{i,t} + \alpha_2 VEVA_{i,t} + \varepsilon_{i,t}$

In which,

- α_0 = constant (intercept)
 EVA = economic value-added as an independent variable
 VEVA = changes of EVA as an independent variable
 CSV = created shareholder value as a dependent variable
 α_1 = coefficient of EVA
 α_2 = coefficient of VEVA and show importance of changes of EVA by market

5.2.2. Regression model II

After estimation of model I and anticipation of relationship between EVA and CSV, now we try to show if there is a difference between EVA and CSV by corporate leadership mechanisms.

Model II: $(CSV-EVA)_{i,t} = \alpha_0 + \beta_1 Inst_{i,t} + \beta_2 Perinsown_{i,t} + \beta_3 Peroutdir_{i,t} + \varepsilon_{i,t}$

5.2.3. Independent variables

$Inst_{i,t}$ = Ownership level of institutional shareholders
 $Perinsown_{i,t}$ = Ownership level of board of directors
 $Peroutdir_{i,t}$ = Ratio of unbounded managers to board of directors

5.2.4. Dependent variable

CSV = created shareholder value

Formula for CSV is:

$CSV = \text{Market value of company's capital} \times (\text{real return rate for shareholders} - K_e)$

K_e = Capital cost rate of company (expected return)

Real return rate for shareholders is calculated by the following formula:

$$R_i = \frac{(P_{t-1} - P_t) + D + M + N}{P_t}$$

in which,

P_t = price in day t

D = net profit

M = priority advantages

N = shared profit advantages

Expected return is calculated by the following formula:

$$R_{mt} = \frac{I_{mt} - I_{mo}}{I_{mo}}$$

in which,

I_{mo} = Bourse index at beginning of period t

I_{mt} = Bourse index at end of period t

It should be mentioned that PRS was calculated for 10 days before annual meetings.

CSV - EVA = difference of EVA and CSV

$EVA = (ROA_t \times Capital_{t-1}) - (WACC_t - Capital_{t-1})$

in which,

EVA = economic value-added

Capital = used capital

WACC = weighted average of capital cost

ROA = capital return rate

6. Statistical sample and sampling method

Society of this research includes 454 companies of Tehran Securities Bourse during 2005-2008. Some of them were excluded by the following pre-assumptions:

- 1- Companies with financial statements dated other than March 20.
- 2- Companies with transaction interruptions more than 6 months.
- 3- Companies that didn't offered the required information.

Therefore, 95 companies were finally omitted systematically and 49 companies were selected. 196 year-company data were calculated to test the assumptions.

7. Data analysis and test of assumptions

In this research, Colmogrov-Smirnov test was used to examine normality of distribution of variables. Durbin-Watson test was used to examine correlation of variables. Multi-variable regression was used to test assumptions. Also, confidence level of test of assumptions was 95%. It means maximum error level is 5%, namely assumptions may be accepted or rejected in error level of $\alpha \geq 5\%$.

7.1. Test of assumption 1

Results for test of assumption 1 were summarized in table 1. To test this assumption, statistical data was divided in four groups. This assumption was not confirmed in none of these groups, and this is confirmed by significance level and T and F statistics.

7.2. Test of assumption 2

Results for test of assumption 2 were summarized in table 2. To test this assumption, statistical data was divided in four groups. This assumption was not confirmed in none of these groups, and this is confirmed by significance level and T and F statistics.

Table 2: Statistical results of test of assumption 2

7.3. Test of assumption 3

Results for test of assumption 3 were summarized in table 3. To test this assumption, statistical data was divided in four groups. This assumption was not confirmed in none of these groups, and this is confirmed by significance level and T and F statistics.

7.4. Test of assumption 4

Results for test of assumption 4 were summarized in table 4. To test this assumption, statistical data was divided in four groups. This assumption was not confirmed in one of these groups

with confidence level of 95%, and this is confirmed by significance level and T and F statistics. However, the assumption was confirmed in the other three groups for confidence level of 95%, and this is confirmed by significance level and T and F statistics.

F=2.836 and significance level of 0.045 is less than 0.05. Therefore, there is a significant relationship of $\alpha=0.05$ between dependent variable (difference of EVA and CSV) with independent variable (internal corporate leadership mechanism).

Regarding to t statistic, it is significant for variable "ratio of unbounded managers to board of directors" in confidence level of 95%, and it is not significant for variable "ownership level of board of directors" in confidence level of 95%, which p values confirm this. and a reverse relationship between ratio of unbounded managers to board of directors with difference of EVA and CSV.

8. Conclusion

Regarding to the results of assumption 1, we cannot anticipate CSV according to EVA. Thus, it is not recommended to decide about future CSV according to EVA. Regarding to the results of assumption 2, we cannot anticipated difference of EVA with CSV by corporate governance. Thus, it is not recommended to decide about future difference of EVA with PRS by corporate governance. Regarding to the results of assumption 3, we cannot anticipate difference of EVA with CSV by external corporate governance. Thus, it is not recommended to decide about future difference of EVA with CSV by external corporate governance. Regarding to the results of assumption 4, we can anticipate difference of EVA with CSV by internal corporate governance. Thus, it is recommended to decide about future difference of EVA with CSV by internal corporate governance. However, since this is a weak relation, caution must be considered.

Table 1: Statistical results of test of assumption 1

Group	Independent variables	T statistics	Sig. level	F statistics	Multiple correlation coeff.	Durbin-Watson	Test result
				Significance			
Group 1 EVA>0 CSV >0	Inst	0.394	0.969	0.619 0.714	0.302	1.988	No relation
	Perinsown	0.334	0.74				
	Peroutdir	0.212	0.834				
Group 2 EVA<0 CSV >0	Inst	0.461	0.646	1.682 0.134	0.308	1.614	No relation
	Perinsown	-0.4	0.69				
	Peroutdir	0.668	0.505				
Group 3 EVA>0 CSV <0	Inst	0.477	0.637	2.043 0.099	0.581	2.222	No relation
	Perinsown	-1.051	0.304				
	Peroutdir	-2.532	0.058				
Group 4 EVA<0 CSV <0	Inst	0.714	0.492	0.755 0.620	0.558	1.645	No relation
	Perinsown	-1.272	0.232				
	Peroutdir	-1.26	0.236				

Table 2: Statistical results of test of assumption 2

Group	Independent variables	T statistics	Sig. level	F statistics	Multiple correlation coeff.	Durbin-Watson	Test result
				Significance			
Group 1 EVA>0 CSV >0	Perinsown	1.355	0.183	0.494 0.740	0.22	2.124	No relation
	Peroutdir	-0.01	0.992				
Group 2 EVA<0 CSV >0	Perinsown	0.514	0.608	1.949 0.108	0.27	1.925	No relation
	Peroutdir	0.421	0.674				
Group 3 EVA>0 CSV <0	Perinsown	-0.754	0.458	2.836 0.045	0.551	2.312	No relation
	Peroutdir	-2.589	0.016				Reverse relation
Group 4 EVA<0 CSV <0	Perinsown	-0.88	0.396	0.763 0.569	0.45	1.541	No relation

Table 3: Statistical results of test of assumption

Group	Independent variables	T statistics	Sig. level	F statistics	Multiple correlation coeff.	Durbin-Watson	Test result
				significance			
Group							
EVA>0	EVA	-0.192	0.757	0.119	0.076	2.256	No relation
CSV>0	VEVA	-0.296	0.768	0.888	0.076		
Group 2							
EVA<0	EVA	-0.027	0.978	0.039	0.028	1.734	No relation
CSV >0	VEVA	-0.281	0.779	0.961	0.028		
Group 3							
EVA>0	EVA	0.348	0.73	0.099	0.084	1.816	No relation
CSV <0	VEVA	-0.38	0.707	0.906	0.084		
Group 4							
EVA<0	EVA	0.139	0.891	0.115	0.127	2.278	No relation
CSV <0	VEVA	0.4	0.695	0.892	0.127		

Table 4: Statistical results of test of assumption 4

Group	Independent variables	T statistics	Sig. level	F statistics	Multiple correlation coeff.	Durbin-Watson	Test result
				significance			
Group 1							
EVA>0 CSV >0	Inst	0.683	-0.412	1.866	0.289	1.951	No relation
Group 2							
EVA<0 CSV >0	Inst	0.313	0.755	0.809	0.126	1.906	No relation
Group 3							
EVA>0 CSV <0	Inst	0.151	0.881	0.05	0.06	2.457	No relation
Group 4							
EVA<0 CSV <0	Inst	0.49	0.632	0.617	0.153	1.781	No relation

Corresponding Author:

Jafar Nekounam

Department of Accounting, khomein Branch, Islamic Azad University, khomein, Iran

E-mail: jf_nekonam64@yahoo.com**References**

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