

# INVESTIGATING THE RELATIONSHIP BETWEEN MANAGERS' NARCISSISM AND SOCIAL RESPONSIBILITY BY CONSIDERING THE MODERATING ROLE OF BOARD INDEPENDENCE IN COMPANIES LISTED ON THE TEHRAN STOCK EXCHANGE

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## Abstract

The purpose of this study is to investigate the relationship between managers' narcissism and social responsibility by considering the moderating role of board independence in companies listed on the Tehran Stock Exchange. The statistical population of the study is all companies listed on the Tehran Stock Exchange during the years 1394-1398. In order to select the statistical sample, the purposive removal method was used which after applying the relevant criteria, 166 companies were selected as the statistical sample. In the present study, regression analysis was used to test the research hypotheses. The results of the first hypothesis test showed that there is a direct and significant relationship between managers' narcissism and social responsibility. Also, the findings of the second hypothesis test showed that the independence of the board of directors has a positive and significant effect on the relationship between managers' narcissism and social responsibility.

**Keywords:** Managers' narcissism, Social responsibility, Board independence.

## INTRODUCTION

Recently, among researchers and financial activists, the theory has been that business activities should not only lead to profits and increase the wealth of shareholders; rather, they must take responsibility for its employees, the environment and society. This theory, known as corporate social responsibility, has become one of the characteristics of business units (Sboeva SG, et. al., 2019; Nam, N. H., et. al., 2021). The social responsibility of business units is the result of four components including economic responsibility, legal responsibility, moral responsibility and public benefit and humanitarian responsibilities (Carlo Archio, 1991). In other words, social responsibility means being required to respond to the needs of external stakeholders, including customers, suppliers, distributors, environmentalists, and people living in a company or factory or service, while protecting the interests of internal groups including owners or shareholders and the unit labor force (Azimi and Ganji Arjenki, 2016). There is a wealth of previous literature on

corporate social responsibility that focuses primarily on the impact of corporate social responsibility on corporate decision-making and financial performance (Waddock & Gross, 1997; Hillman & Kim, 2001; McWilliams & Siegel, 2001). On the other hand, a review of the behavioral finance literature shows that managers' personal behaviors have a significant impact on company policies (Bandividohmkaran, 2012; Dashmakhoomkaran, 2012).

## Background research

Jane Sun Ann et al. (2019) conducted research on the title of narcissistic CEO and corporate social responsibility: Is the role of a board outside the company important? The results of their research showed that there is a significant relationship between managers' narcissism and social responsibility and the independence of the board of directors affects this relationship. Kim et al. (2018) examined the effects of managers' narcissism on corporate social responsibility. They showed that managers' narcissism moderates the negative relationship between avoiding

uncertainty and corporate social responsibility practices. Petrenko et al. (2016) in a study examined the relationship between social responsibility and corporate performance by considering the narcissism of managers. In this study, they showed that while corporate social responsibility has a positive effect on firm performance, but when managers' behavior is due to narcissism, such an effect is weakened because narcissistic managers may commit to non-strategic decisions in corporate social responsibility just to advance their plan.

Fereydoni and Karami (2016) conducted a study entitled *The role of competitive advantage in the relationship between social responsibility and financial performance of companies listed on the Tehran Stock Exchange*. For this purpose, a sample of 93 companies was studied during the period 1388 - 1397. Findings indicate that there is a positive and significant relationship between social responsibility and financial performance. Mam Salehi and Eskandarli (1398) conducted a study entitled *Gender Diversity of Board Members and the Value Relationship of Corporate Social Responsibility*. To conduct this research, a statistical sample including 156 companies listed on the Tehran Stock Exchange during the period 2012 to 2016 was selected. Based on the combined data method and multivariate linear regression analysis, the research findings showed that social responsibility has a value relationship in line with the theory of legitimacy. Abbaspour Dolama et al. (2015) conducted a study entitled *"Investigation of the relationship between managers' overconfidence on social responsibility and performance in companies listed on the Tehran Stock Exchange"*. In this study, data related to 600 years-company for the period 1390 to 1395 and using integrated regression has been analyzed. The results of this study show that there is a positive and significant relationship between managers' overconfidence and company performance and social responsibility.

Khalilpour et al. In their research in (2018), during explaining the concept of social responsibility by basing the conceptual framework of accounting and reporting framework of traditional social responsibility to examine the desired features, sought to provide

a conceptual framework for reporting corporate social responsibility. The research results show that in terms of reporting objectives, quality characteristics of information, responsibility for preparing and submitting reports, accreditation, institutions that develop corporate social responsibility standards and financing, there are many similarities with the field of financial reporting and Taghipour et al (2020), studied *The Impact of Working Capital Management on the Performance of Firms Listed in Tehran Stock Exchange (TSE)*. Taghipour et al (2016) studied *The Impact of ICT on Knowledge Sharing Obstacles in Knowledge Management Process (Including Case-Study)*. Mohammadi et al (2021) studied *Investigating the role and impact of using ICT tools on evaluating the performance of service organizations*. Taghipour et al (2015) studied *Necessity Analysis and Optimization of Implementing Projects with The Integration Approach of Risk Management and Value Engineering*.

Divandari et al. (2015) conducted a study entitled *The duality of CEO role and social responsibility*. For this purpose, information related to 85 companies active in the stock exchange during the years 1391 to 1395 was collected and analyzed by Iveys statistical software. Based on research findings and statistical tests, it can be said that there is a significant relationship between the duality of CEO role and social responsibility. Razmjoui et al. (2015) conducted a study entitled *The effect of ownership structure and board composition on corporate social responsibility*. Tarverdizadeh et al.(2020), studied *Predicting students' academic achievement based on emotional intelligence, personality and demographic characteristics, attitudes toward education and career prospects through the mediation of academic resilience*.

The required information is according to the data of different industries in Tehran Stock Exchange in the period between 88 to 92 years. The results indicate that among the independent variables of research, the rank of ownership concentration and relatively responsible members have the greatest impact on corporate social responsibility and among the control variables only the level of education affects the dependent variable which is corporate social responsibility. .

**Research purposes**

The present study seeks to achieve the following goals:

Objective 1: To investigate the relationship between managers' narcissism and social responsibility.

Objective 2: To examine the role of board independence in the relationship between managers' narcissism and social responsibility

**Research hypotheses**

In order to achieve the objectives of the research and according to the theoretical foundations of the research, the hypotheses of the present research are formulated as follows:

Hypothesis 1: There is a significant relationship between managers' narcissism and social responsibility

Hypothesis 2: The independence of the board of directors affects the relationship between managers' narcissism and social responsibility

**statistical sample of research**

The statistical population of the research is the companies listed on the Tehran Stock Exchange during the years 1394 to 1398. In this research, the systematic deletion sampling method has been used. In this method, first the conditions for selecting the sample are defined and the expressions without the mentioned conditions are removed from the sample. Therefore, companies that benefit from the following criteria and conditions are selected as a statistical sample:

1. To be active in the stock exchange between 1394 and 1398
2. Their fiscal year should end on March 20 and they should not have changed the fiscal year.
3. Do not stop operating during the financial year.
4. Not to be apart of credit, insurance, investment, banking and leasing

companies (due to differences in the nature of their operations).

5. Their financial information should be available

According to the above criteria, 166 companies were selected as a statistical sample.

**Experimental model of research**

To test the research hypotheses, the following regression model will be used:

$$CSR_{it} = \beta_0 + \beta_1 NM_{it} + \beta_2 BIND_{it} + \beta_3 NM * BIND_{it} + \beta_4 AQ_{it} + \beta_5 Size_{it} + \beta_6 TANG_{it} + \beta_7 CASH_{it} + \beta_8 PROF_{it} + \beta_9 LEV_{it} + e_{it}$$

- ✓ CSR is a dependent variable and represents social responsibility
- ✓ NM is an independent variable and indicates the narcissism of managers.
- ✓ BIND is a moderator variable and indicates the independence of the board.
- ✓ AQ is a control variable and indicates the quality of the audit.
- ✓ SIZE is a control variable and indicates the size of the company.
- ✓ TANG is a control variable and represents the firm's fixed assets.
- ✓ CASH is a control variable and represents the company's cash.
- ✓ PROF is a control variable and represents the profitability of the company.
- ✓ LEV is a control variable and represents the financial leverage of the company.

**Measurement of research variables**

**Table 1.** Dimensions of corporate social responsibility

Measurement	Indicator	Dimensions
Percentage of institutional ownership, percentage of non-executive board members and percentage of free float	Major shareholders and the degree of attention to other shareholders	Corporate governance
The natural logarithm of research and development costs	Activities related to product quality and innovation	Customers

The ratio of employees' salaries to their number	Benefits and quality of working life	Staff
Proportion of tangible fixed assets to total assets	Physical assets and pollution emissions	the environment
The natural logarithm of earnings per share	Increase shareholder wealth	Shareholders
criteria Natural tax logarithm	Socio-economic support	Society

**Descriptive statistics of research data**

**Table 2.** Descriptive Statistics

Slenderness ratio	Skewness coefficient	Maximum	minimum	Standard deviation	Middle	Average	symbol	Variable
-0/596	0/02	6	0	1/25	3	2/53	CSR	responsibility
1/27	1/355	0/161	0/000	0/013	0/002	0/007	NM	Narcissism
-0/131	-0/233	1/000	0/000	0/189	0/600	0/667	BIND	Independence of the board
1/026	1/739	1	0	0/378	0/00	0/170	AQ	Audit quality
0/993	0/846	20/183	11/197	1/597	14/433	14/678	Size	Size
-0/167	0/726	0/0935	0/001	0/019	0/0269	0/0300	TANG	Fixed assets
1/283	1/710	0/599	0/0002	0/051	0/0273	0/0429	CASH	cash
1/294	0/342	0/603	-0/404	0/139	0/089	0/107	PROF	Profitability
0/656	1/05	0/117	0/000	0/000	0/0187	0/0249	LEV	Financial Leverage

Mean index for the variables of responsibility, narcissism, board independence, audit quality, size, fixed assets, cash, profitability and financial leverage, are respectively 2.53, 0.007, 0.667, 0.170, 678.14, 03/0, 0429/0, 107/0, 0249. The dispersion of these variables was also low because the standard deviation index was low for all variables. It should be noted that the

indices of skewness and elongation coefficient for all variables were between -2 and 2. Hence, there are strong reasons for the normality of the variables.

In this study, due to the existence of high sections (number of companies) and low time series, Madala and View test (1999) has been used. The results of this test are shown in Table 3.

**Table 3.** Collective unit root test for variables

LEV	AQ	BIND	NM	CSR	
-16	-16	-16	-16	-16	Test value p
10	×10	×10	×10	×10	
2×	<2	<2	<2	<2	

PROF	CASH	TANG	Size	
-16	-16	-16	-16	Test value p
×10	×10	×10	×10	
<2	<2	<2	<2	

Before testing the regression model, it is necessary to perform tests to select the best regression model. The first test is the F-Limer

test. If P-value is less than 0.05, the panel regression method will be selected and if otherwise the OLS regression is selected.

**Table 4.** Results of F-Limer test for modeling research hypotheses

Test result	P-amount	Statistics of F	Hypothesis Zero (H0)
Hypothesis H0 is rejected. (Panel method is better)	0/000	4/428	OLS method preference

The F-Limer test indicates that at the 5% error level between the OLS method and the panel

method, the panel method should be used. The results of this test are as follows:

**Table 5.** Hausman test for modeling research hypotheses

Test result	P-amount	Chi-square statistics	Hypothesis Zero (H0)
H0 is rejected (Fixed effects method is better)	0/000	55/27	Using the random effects method

As can be seen, model estimation by fixed effects method is better . The Bruch-Godfrey test is used to test whether the errors of the model used are serially correlated. If the P-value

is less than 0.05, it can be said that the studied data have serial autocorrelation.

**Table 6.** Bruch-Godfrey test for modeling research hypotheses

Test result	P-amount	Chi-square statistics	Hypothesis Zero (H0)
H0 is rejected (There is serial self-correlation)	0/000	173/33	There is no serial self-correlation

As can be seen, the P-value is less than 5%, so the model error autocorrelation is accepted. To test whether the error of the model used has heterogeneity of variance, we use the Bruch-

Pagen test. If the P-value is less than 0.05, it can be said that the studied data have heterogeneity of variance. The test results are as follows:

**Table 7.** Bruch-Pagen test for modeling research hypotheses

Test result	P-amount	Chi-square statistics	Hypothesis Zero (H0)
H0 is rejected (There is no error variance homogeneity)	0/031	18/40	There is an error variance homogeneity

As can be seen, the P-value is less than 5%, so the variance homogeneity of the model error is not accepted. In this regard, by summarizing the regression assumptions, it has been concluded that generalized panel regression should be used. After performing this regression, the results are as follows:

**Table 8.** Results of research hypotheses model

result	P amount	T statistics	Standard line deviation	Variable coefficients in model	VI F	Coefficients
Significance in the model	0/000	/641 -7	0/364	2/787	-	Width of origin
Significance in the model	0/000	16/5	0/139	2/295	25 2/	<i>NM</i>
Significance in the model	0/000	1/66 0	0/199	2/13	63 2/	<i>BIND</i>
Lack of significance in the model	0/000	4/75	1/795	8/58	13 2/	<i>NM</i> * <i>BIND</i>
Lack of significance in the model	0/679	/414 -0	0/091	-0/037	09 1/	<i>AQ</i>
significance in the model	0/000	/057 10	0/0218	0/219	14 1/	<i>Size</i>
significance in the model	0/000	/284 5	1/855	9/804	19 1/	<i>TANG</i>
significance in the model	0/018	2/37	0/641	1/518	16 1/	<i>CASH</i>
significance in the model	0/000	1/66 2	0/283	3/590	18 1/	<i>PROF</i>
significance in the model	0/037	/089 -2	1/715	-3/582	29 1/	<i>LEV</i>
0/487	The coefficient of determination					

86/59	<b>F statistics</b>	Model significance test
0/000	<b>P amount</b>	
2/006	<b>Durbin-watson statistics</b>	Durbin-watson test
0/635	<b>مقدار P</b>	

As can be seen in Table 8, the maximum VIF values were also less than 10, so the existence of all variables in the model will not be distorted. The P-value (0.000) of the model significance test also confirms the suitability of the model. On the other hand, the results of the coefficient of determination show that 48.7% of the dependent variable is explained by independent variables.

According to the results, t-statistic (-16.5) shows that the independent variable NM in this model at the level of 95% confidence is statistically significant. Because, firstly, the absolute value of this statistic is more than 96.1 and secondly, the P-value (0.000) is less than 5%. Also, the coefficient of this variable in the model was negative. Thus:

**There is a significant relationship between managers' narcissism and social responsibility.**

According to the results, t-statistic (4.75) shows that the independent variable NM \* BIND in this model at the level of 95% confidence, is statistically significant. Because, firstly, the absolute value of this statistic is more than 1.96 and secondly, the P-value (0.000) is less than 5%. On the other hand, the coefficient of this variable in the model is negative. Thus:

**Board independence affects the relationship between managers' narcissism and social responsibility.**

According to the results, t-statistic (10.66) shows that the independent variable BIND in this model at the level of 95% confidence, is statistically significant. Because, firstly, the absolute value of this statistic is more than 1.96 and secondly, the P-value (0.000) is less than 5%.

According to the results, t-statistic (-0.414) shows that the independent variable AQ in this model at 95% confidence level is not

statistically significant. Because firstly, the absolute values of this statistic are less than 1.96 and secondly, the P-value (0.679) is more than 5%.

According to the results, t-statistic (10.057) shows that the independent variable Size in this model at the level of 95% confidence, is statistically significant.

According to the results, t-statistic (5.284) shows that the independent variable TANG in this model at the level of 95% confidence, is statistically significant because firstly, the absolute magnitude values of this statistic are more than 1.96 and secondly, the P-value (000). / 0) is also less than 5%.

According to the results, t-statistic (2.37) shows that the independent variable CASH in this model at the level of 95% confidence, is statistically significant because firstly, the absolute value of this statistic is more than 1.96 and secondly, the P-value (/ 000). 0) is also less than 5%.

According to the results, t-statistic (12.66) shows that the independent variable PROF in this model at the level of 95% confidence, is statistically significant because firstly the absolute value of this statistic is more than 1.96 and secondly P-value (/ 000). 0) is also less than 5%.

According to the results, t-statistic (-2.089) shows that the independent variable LEV in this model at the level of 95% confidence is statistically significant because firstly, the absolute magnitude values of this statistic are more than 1.96 and secondly, the P-value (000). / 0) is also less than 5%.

**Suggestions for future research**

1. The effect of other personality traits of managers such as gender diversity and short-sightedness on social responsibility.
2. Investigating the effectiveness of the audit committee on the relationship



between managers' narcissism and social responsibility

3. Considering that in the present study, all listed companies have been considered as a statistical population, it is suggested that in future researches, the subject of the present study be done separately in different industries and the results be compared with each other.

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