

# ATTITUDE TO THE ROLE OF CORPORATE POWER IN VOLUNTARY DISCLOSURE OF NON- FINANCIAL INFORMATION AND SUSTAINABILITY PERFORMANCE

## ATITUDE EM RELAÇÃO AO PAPEL DO PODER CORPORATIVO NA DIVULGAÇÃO VOLUNTÁRIA DE INFORMAÇÕES NÃO FINANCEIRAS E DESEMPENHO DE SUSTENTABILIDADE

Mehdi Feizi 1  
Abbas Pour Aghajan Sarhamami 2  
Seyyed Hossein Nasl Mousavi 3

Ph.D Student, Department of Accounting, Ghaemshahr Branch, Islamic Azad University, Ghaemshahr, Iran. E-mail: feizi@aftermail.ir 1

Associate Professor, Department of Accounting, Ghaemshahr Branch, Islamic Azad University, Ghaemshahr, Iran. E-mail: sarhamami@aftermail.ir 2

Assistant Professor, Department of Accounting, Ghaemshahr Branch, Islamic Azad University, Ghaemshahr, Iran. E-mail: naslmousavi@aftermail.ir 3

**Abstract:** Providing voluntary financial information about identifying, measuring and disclosing accounting items in the financial statements as well as non-financial information attracts investors and contributes effectively to improving the financial position, management face and sustainability of the company. However, executives of insufficient companies may manipulate their financial information to conceal or delay an inappropriate financial situation. Therefore, managers of non-financial corporations are more likely to have a lack of transparency and to avoid disclosing supplementary and voluntary information. In this regard, the present study examined the role of corporate power in voluntary disclosure of non-financial information and corporate sustainability performance. The statistical population of this study included all companies listed in Tehran Stock Exchange from 2008 to 2017 and the sample was selected through systematic elimination from the statistical population. According to the specified conditions, 112 companies were selected as the statistical sample of this study. It is worth noting that the hypotheses were tested by designing multivariate regression models. The results showed that firm strength enhances the direct relationship between voluntary disclosure of non-financial information and its dimensions with firm sustainability performance.

**Keywords:** Corporate power. Voluntary disclosure of non-financial information. Sustainability performance.

**Resumo:** O fornecimento de informações financeiras voluntárias sobre a identificação, mensuração e divulgação de itens contábeis nas demonstrações financeiras, bem como informações não financeiras, atrai investidores e contribui efetivamente para melhorar a posição financeira, a face administrativa e a sustentabilidade da empresa. No entanto, executivos de empresas insuficientes podem manipular suas informações financeiras para ocultar ou atrasar uma situação financeira inadequada. Portanto, é mais provável que os gerentes de empresas não financeiras tenham falta de transparência e evitem a divulgação de informações complementares e voluntárias. Nesse sentido, o presente estudo examinou o papel do poder corporativo na divulgação voluntária de informações não financeiras e no desempenho da sustentabilidade corporativa. A população estatística deste estudo incluiu todas as empresas listadas na Bolsa de Valores de Teerã de 2008 a 2017 e a amostra foi selecionada por eliminação sistemática da população estatística. De acordo com as condições especificadas, 112 empresas foram selecionadas como amostra estatística deste estudo. Vale ressaltar que as hipóteses foram testadas através do desenho de modelos de regressão multivariados. Os resultados mostraram que a força da empresa aprimora a relação direta entre a divulgação voluntária de informações não financeiras e suas dimensões com o desempenho da sustentabilidade da empresa.

**Palavras-chave:** Poder corporativo. Divulgação voluntária de informações não financeiras. Desempenho em sustentabilidade.

## Introduction

A company can create value when its management approach incorporates different characteristics, particularly in terms of integrating economic, environmental and social dimensions. Stakeholders with conflicting interests increase the demand for multiple dimensions measurement. According to stakeholder perceptions, a company can continue to operate when it is able to build, maintain, and sustain lasting relationships with its stakeholders through sustainable performance management (Sajjadi & Bonabi, 2014).

On the other hand, gaining investor confidence in investing in the capital market requires companies to increase transparency in providing financial and non-financial information. In order to increase the transparency of financial and non-financial information, companies may choose to expand their disclosure policies and thereby voluntary disclosure as an important economic tool. Some companies voluntarily disclose additional information in addition to disclosing minimum information based on relevant standards and other laws and regulations (Hayley & Palpo, 2001). One of the important consequences of disclosing information by companies is its economic consequences. Firms that decide to voluntarily disclose information provide useful information in anticipating future cash flows, assessing risks and managing their strategies, and the appropriateness of tangible and intangible resources. (Hamidian et al., 1986) that this information is crucial when users evaluate a company (McLeish et al., 2017). Corporate power is also an important issue for organizations' financial thinkers and managers because it is powerless if a company does not have the power. To this end, the present study investigated the role of firm power creation in voluntary disclosure of non-financial information and corporate sustainability performance.

## Theoretical Foundations and Research Background

Companies disclose information through the publication of financial statements, explanatory notes, board reports, and the like. In addition, some companies disclose minimum information in accordance with relevant standards and other laws in addition to disclosure.

Regulations also provide for the additional disclosure of information voluntarily (Kyo et al., 2012). The starting point, and indeed the basis for the subject of information disclosure, relates to representation theory and information asymmetry problems. The results of recent studies show that information disclosure has always been one of the most important factors in reducing agency problems and information asymmetry. On the other hand, sustainability, according to the first and most well-known definition, is to meet the needs of the present, without compromising the ability of future generations to meet their needs (Snyersson, 2008). Focusing on the future lies at the heart of the contractual relationship between the company and the stakeholders. The future is also evident through sustainability. Regardless of the cost of disclosure, managers gain benefits by voluntary disclosure, and companies are better placed to voluntarily disclose information as a result of voluntary disclosure of information, reducing the cost of information symmetry, costing capital and improving stock liquidity. One of the benefits of disclosing information is reducing the lack of information symmetry between the investor firm and the investor (Brown & Hillgist, 2007). However, the results of Hayley and Wallen (1999) indicate that firms with insufficient power may manipulate their financial information to hide or delay inappropriate financial status. Therefore, managers of non-financial corporations have more incentives to avoid transparency and avoid disclosure of supplementary and voluntary information. When a company lacks financial strength, it faces one of two possible contradictions: a lack of cash in the balance sheet assets or debt inflation on the left side of the balance sheet. In both cases, however, the consequences are the same and, in fact, cash flows are not sufficient to cover financial liabilities (Andrade & Kaplan, 1998).

This is forcing that companies to negotiate with creditors on the terms of delaying their debt repayments during the period that the company is trying to Restructuring can cope with financial problems and the success of companies in these negotiations depends on their bargaining power (Otcheva, 2017). When a company has sufficient financial strength, it will not face the problem of raising capital and financing. Therefore, firms that do not have the power to do so have a low level of investor acceptance and, under these conditions, their tendency for transparency and reporting declines (Brown et al., 2011).

In this regard, McLeish et al. (2017) in European firms showed that the value relationship of

accounting variables provides a wide disclosure regarding the business model. The findings show that disclosure of business model information is important not only for investor strategies but also for regulators and standards makers. (Hang and etal. 2017) also found that, by measuring the effect of the spread on the stock exchange as information asymmetry agents and the information obtained from the CSR reports, voluntary reporting of social responsibility Corporate reduces information asymmetry. In Iran, Bashirmanesh and Rahmani (2016) studied the development of an optional disclosure model as a tool for management accounting, and develop an appropriate optional disclosure model by examining the literature and literature of the field of voluntary disclosure. The results of their surveys over multiple studies indicate a high correlation between the items assigned to each dimension with the total score of that dimension and a high correlation between the scores of each dimension with the optional total disclosure score. Accordingly, the model developed from the point of view of experts and correlation analysis has high validity and reliability and can be used by corporate executives to improve information transparency.

### Research hypotheses

Based on the explanations provided and the various aspects of voluntary disclosure of non-financial information, the hypotheses of the present study are as follows:

1. Corporate power is influenced by the relationship between voluntary disclosure of non-financial information and firm sustainability performance.

1-1. Corporate power is influenced by the relationship between voluntary disclosure of forward-looking non-financial information and firm sustainability performance.

1-2. Corporate power is influenced by the relationship between voluntary disclosure of retrospective non-financial information and firm sustainability performance.

1-3. The power of the company is influenced by the relationship between voluntary disclosure of non-financial information by the company in terms of the environment around the company and the sustainability performance of the company.

1-4. The power of the firm is influenced by the relationship between voluntary disclosure of non-financial information by the firm in terms of industry competitiveness and firm sustainability performance.

1-5. Corporate power is influenced by the relationship between voluntary disclosure of non-financial company information in terms of corporate trends and firm sustainability performance.

1-6. Corporate power is influenced by the relationship between voluntary disclosure of non-financial company information from the perspective of the corporate environment and firm sustainability performance.

1-7. Corporate power is influenced by the relationship between voluntary disclosure of non-financial information by the firm in terms of company production and firm sustainability performance.

1-8. Corporate power is influenced by the relationship between voluntary disclosure of non-financial company information from a customer perspective and firm sustainability performance.

1-9. The power of the firm is influenced by the relationship between voluntary disclosure of non-financial information by the firm in terms of technology and firm sustainability performance.

### Materials and Methods

The statistical population of this study is all companies listed in Tehran Stock Exchange during the years 2008-2017 and consists of companies that meet the following criteria and considering the application of these criteria, their number Subjects will be limited, and will not be excluded:

1. During the research period, do not have any changes in the financial period.
2. Have no trading interruption for more than 6 months.
3. Not to be part of companies active in investment activities. Because these companies are different in nature of activity and their main income comes from investing and are dependent on the activities of other companies, so they are fundamentally different from other companies. And so they will be removed from the sample.
4. The data required for the research variables are available in the period 2008-2017.

5. Their financial period ends on 12/29 each year so that data can be used together and, if needed, as a panel.

Considering the mentioned conditions led to the selection of 121 companies as the statistical sample of this research.

## Research models and variables

The following model is used to test the research hypotheses:

The main hypothesis:

$$CSP\_SCORE_{i,t} = \beta_0 + \beta_1 NDSCORE_{i,t} + \beta_2 BMI_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 Growth_{i,t} + \beta_5 LEV_{i,t} + \beta_6 LOSS_{i,t} + \beta_7 EQ_{i,t} + \beta_8 ISSUE_{i,t} + \beta_9 INTAN_{i,t} + \beta_{10} Ent-Costi_{i,t} + \beta_{11} Inform\_Asy_{i,t} + \beta_{12} Inst\_Owner_{i,t} + \beta_{13} MFScore_{i,t} + \beta_{14} NDSCORE_{i,t} * MFScore_{i,t} + \epsilon_{i,t}$$

Where:

The dependent variable:

$CSP\_SCORE_{i,t}$  = Firm performance  $i$  in year  $t$  calculated by basing the items listed in Table 1. If one item discloses corporate sustainability items, the score is assigned one and, if not disclosed, a score is zero. Therefore, the number of items disclosed in the total disclosed items in corporate sustainability reporting based on data contained in annual corporate reports indicates the percentage of corporate sustainability disclosure or corporate sustainability performance rating (Sensitive Yeganeh and Barzegar, 2015).

**Table 1.** Coding details of the dimensions and components of the sustainability performance model

Economic Indicators
1. Covering the goals and requirements defined in the company planning
2. The added value of each worker / staff
3. Face value added
4. Return on Assets
5. Market share of the company in the whole industry and in the local / local area
7. Geographical focus of sales / customers by region and...
8. Trends and Changes in Quantities / Rials Sales by Product / Area / Customers
9. Trends and changes in technology and regulations affecting markets and products in the local area or environment
10. Market and competitor changes in industry and region (competitive advantages and pressures) and its outlook
11. Identify and describe significant indirect economic impacts including currency savings and ..
12. Productivity and labor productivity indicators of the company
13. Costs and social investment by type and scope
14. VAT paid for products and services
15. Taxes and other duties paid
Social indicators
1. Total employees by type of employment, age group, geographical area, gender, etc.
2. Processes and Policies for Communicating with Company Personnel and Surveying Staff and Results
3. Describe the activities and hours of training and the number and percentage of staff / workers trained by classes and groups
4. Describe / describe health and safety standards and activities of employees and occupational health and observance of health laws and occupational safety and health standards
5. Receive a certificate or awards related to occupational safety, health, safety and health of employees

- 
6. Establishing or participating in the establishment of a workforce training center or an independent training unit in the company
- 
7. Employee Welfare Activities (Workers' Home Plan, Employee Welfare Fund and Life Insurance, etc.)
- 
8. Disclosure of recruitment and employment policies and procedures, wages, workers' compensation, etc.
- 
9. Report abuse, criticism and suggestions system
- 
10. Quality Awards / Certificates / Consumer Rights and .....
- 
11. Disclose product specifications in accordance with safety standards and guidelines for use of company products and services
- 
12. Customer Satisfaction Management Systems and Customer Satisfaction Measures
- 
13. Describe the procedures associated with suppliers, their number by region, and the evaluation of the firm's supply chain performance.
- 
14. Disclosure of information on company product development and research projects to improve company products including innovation, R&D expenses, etc.
- 
15. Insights, Attitudes, Strategies, and Responsibilities of the Board and Senior Managers of the CSP
- 
16. Awards / Certificates for Social, Cultural, Environmental, Educational, Sport Activities
- 
17. Membership in CSP-affiliated national / regional / international communities, institutions and communities
- 
18. Scholarship Program Scholarship Fund and related gifts
- 
19. Support the development of small and entrepreneurial industries, especially indigenous / local people
- 
20. Create infrastructure for the general public in the community and the indigenous / local area including the construction of bridges, roads and ...
- 
21. Consumer / financial resources in cash, products, services to support social, educational, educational and artistic activities
- 
22. Donations for victims of natural disasters, including floods, earthquakes and ...
- 
23. Recruitment / recruitment of part-time student / student and liaison with universities and research centers
- 
24. Sponsor or sponsor community health projects and support and support for medical research
- 
25. Sponsor or sponsor educational conferences, seminars and art exhibitions
- 
26. Code / Regulations / Corporate Ethics / Charter
- 
27. Voluntary laws, regulations and principles related to communications, industrial relations, marketing, advertising and ...
- 
28. Describes measures taken to prevent and combat corruption, bribery, and money laundering.
- 
- Environmental indicators
- 
1. The amount and value of raw materials consumed, directly and indirectly
- 
2. Direct and indirect energy consumption by source and amount
- 
3. Consumed water, recycled, purified by source and how it is consumed
- 
4. Actions and initiatives to provide products and services based on recyclable materials and reduce energy consumption
- 
5. The amount of energy saved or saved by improving the processes and operations of the company
- 
6. Strategies, Current Actions, and Future Plans to Manage Impacts on Biodiversity and Natural Resources
- 
7. Reduce the harmful effects on biodiversity and its various species and natural resources including forest, soil
- 
8. Preventing or removing environmental damage due to the processing of natural resources, such as land reclamation, soil and forestry.
-

- 
9. Measures taken to reduce greenhouse gas emissions, gas removal methods and criteria and results
- 
10. Total lesions by type and how they are used
- 
11. Procedures on how to reduce hazardous and non-hazardous waste and proper disposal of waste with respect to environmental issues
- 
12. Environmental impacts of transportation of products, raw materials and commodities and relocation of company employees
- 
13. Describe activities to address environmental issues from the perspective of customers / consumers and the company supply chain
- 
14. Informing and consulting the company's customers for environmental considerations and reducing its adverse environmental impacts.
15. Design of environmentally friendly facilities and equipment and environmentally friendly products
- 
16. Company Code / Regulations / Environmental Charter
- 
17. Environmental Lawsuits

### Independent variables

$NDSCORE_{i,t}$  = Voluntary disclosure of non-financial information by company  $i$  in year  $t$ , based on the items listed in Table II, score one if zero, and if not disclosed, zero score is given. Therefore, the number of items disclosed to the total of the items disclosed in the voluntary disclosure of non-financial corporation's information based on data contained in the annual reports of corporations indicates the percentage of voluntary disclosure of non-financial corporation's information or the voluntary disclosure rating of the corporations.

**Table 2.** Independent variables

1. The ability of new companies to enter the industry
2. The ability of the reporting company to provide alternative products or services to replace those newcomers
3. Corporate relationships with competitors and their position in the industry
4. Changes in markets, competition, or technology
5. Describe the industry structure of the company
6. Growth or contraction in market share
7. Information about the economy, industry of the company and the company itself
8. Recent changes in the environment, nature and timing of company reactions
9. Laws and Regulations Affecting the Industry
10. Business Strategy and Managing Strategy Coordination with External Organizational Trends
11. Empowering Infrastructure Including Organizational Structure, Business Strategy, Management Philosophy and Employee Incentives
12. Emphasis on providing financial information based on management accountability
13. Goals of Return on Assets, Return on Equity and Ratio of Capital
14. Identity and Background of Board Members and Managers
15. Identity of major shareholders, all shareholders and shares owned by board members, directors and employees
16. Goals, Strategies, and Key Factors Critical to Successful Implementation of Strategies



17. Methods of guiding the entity
18. Mission, Essential Goals and Strategies to Achieve Specific Goals
19. The nature of the disagreement with board members, banks, independent auditors and former auditors
20. Understand the essential parts of managing a company
21. Types and amounts of remuneration of board members and managers and methods of calculation used
22. The beneficial or adverse conditions that the Company is involved in and may increase or decrease in future operating cash flows.
23. Changes in the financial position and financial flexibility of the company
24. Describe the relationships and changes in the data
25. Prospective qualitative information, including forecasts and future information
26. Provide information on the R&D stage, including information on the likelihood that the new product will be successful, complete the test phase time, and be accepted by law enforcement agencies.
27. Talk about new products that will be introduced
28. Discuss the inventions that will be used
29. Future Emphasis and Orientations of Technology Innovations
30. Describe the structure of the industry and the economic unit
31. Involvement of staff and make their changes
32. Public events in the business and business environment over the last five years
33. The number of employees and their average remuneration
34. Identity of related persons and description of relationships
35. The scope and description of the entity's activities and associated assets
36. Seasonal Affairs and Entity Periods
37. The number and quality of key sources and suppliers
38. Definition of industry (or other sectors)
39. Description and timing of important patents and trademarks
40. Describe the nature of current operations and vulnerabilities
41. Describe the essential products or services
42. Growth in units sold or average price of units sold
43. Information on geographical focus on production bases
44. Information on the nature of product warranty changes
45. Major changes in the production of materials purchased from one or two of the largest suppliers
46. Non-financial historical business information for the last ten years
47. Information about the sources and results of recent processes, innovative products or services
48. bargaining power with resource providers and supplier satisfaction
49. Timely implementation of key activities
50. Trends in sales, sales prices, cost of units and volume and prices of items used
51. Information on where products are manufactured and delivered

52. Information on Geographic Focus on Company Sales
53. Information on technological changes and regulations that affect the company market
54. Information on Marketing, Commerce and Distribution
55. Large increases or decreases in the proportion of products or services offered to the largest customers
56. Major contractual relationships
57. Changes in price, volume and products of the company and their reasons
58. Market penetration and quality of market presence
59. Providing Customer Satisfaction Criteria
60. Relative bargaining power of customers
61. Current Product Innovations
62. Describe ongoing research projects
63. Failure of older projects
64. Description of inventions

$F\_NDSCORE_{i,t}$  = Voluntary Disclosure of Prospective Non-Financial Information of Company  $i$  in Year  $t$  Based on the items listed in Table No. 2, if a Prospective Non-Financial Company Disclosure Is Performed, Score One and If not disclosed, a score of zero will be given.

$H\_NDSCORE_{i,t}$  = Voluntary disclosure of retrospective non-financial information of company  $i$  in year  $t$ , based on the items listed in Table No. 2, if one item of retrospective non-financial information is disclosed, If not disclosed, a score of zero will be given.

$EAC\_NDSCORE_{i,t}$  = Voluntary disclosure of non-financial information from a corporate environment  $i$  in year  $t$ , based on the items listed in Table 2, if a non-financial disclosure is done from a corporate environmental perspective, rating one. And if not disclosed, the score will be zero.

$ICI\_NDSCORE_{i,t}$  = Voluntary disclosure of non-financial corporation information from the standpoint of compaction in the industry of company  $i$  in year  $t$  based on the items listed in Table II, if a pen disclosure of non-financial information from the corporation compact If it is not disclosed, the score will be zero.

$CT\_NDSCORE_{i,t}$  = Voluntary disclosure of non-financial company information from the perspective of corporate trends  $i$  in year  $t$  based on the items listed in Table II, if a non-financial disclosure item was made from the corporate trends perspective, score one and If not disclosed, the score will be zero.

$EC\_NDSCORE_{i,t}$  = Voluntary disclosure of non-financial company information from the perspective of the corporate environment  $i$  in year  $t$  based on the items listed in Table No. 2, if a non-financial information disclosure is done from the corporate environment perspective, rating one and if disclosed. If not, zero is given.

$P\_NDSCORE_{i,t}$  = Voluntary Disclosure of Company Non-Financial Information from the Production Perspective  $i$  in Year  $t$  Based on the items listed in Table II, if a Voluntary Disclosure of Non-Financial Company Information from Production Perspective, Score One and If not disclosed, a score of zero will be given.

$C\_NDSCORE_{i,t}$  = Voluntary Disclosure of Company Non-Financial Information from the Perspective of Company  $i$  in year  $t$  Based on the items listed in Table II, if a voluntary disclosure of non-financial company information is performed from the perspective of customers If not disclosed, a score of zero will be given.

$T\_NDSCORE_{i,t}$  = Voluntary disclosure of non-financial corporation information from a technology standpoint  $i$  in year  $t$ , based on the items listed in Table 2, if a voluntary disclosure of corporation non-financial information is made from a technology perspective If not disclosed, a score of zero will be given.



Moderator variable:

$P\_NDSCORE_{i,t}$  = firm strength  $i$  in year  $t$  to calculate, in the first step, following Banerjee and Deb (2017), four variables are used as measures of firm profitability:

- (1) Return on Assets (ROA) = Net Profit/ Total assets
- (2) Return on Assets ( $\Delta ROA$ ) =  $ROA_{i,t} - ROA_{i,t-1}$
- (3) Operating Cash Flow (CFO) = Operating Cash Flow/Total assets
- (4) ACCRUALS = (Operating Cash Flow - Net Profit)/ Total assets

Three variables are used as criteria for a company's financing status:

- (1) Financial Leverage Changes ( $\Delta LEVERAGE$ ) =  $LEVERAGE_{i,t} - LEVERAGE_{i,t-1}$   
LEVERAGE = Total Debt/Total assets
- (2) Liquidity Changes ( $\Delta LIQUIDITY$ ) =  $LIQUIDITY_{i,t} - LIQUIDITY_{i,t-1}$   
Liquidity =  $LIQUIDITY = \text{Current Assets/Current Debts}$
- (3) Equity Changes ( $\Delta EQUITY$ ) =  $EQUITY_{i,t} - EQUITY_{i,t-1}$   
Equity (EQUITY) = Equity/Total Debts

Two variables are used as criteria for a company's operational performance:

- (1) Profit Margin Changes ( $\Delta MARGIN$ ) =  $MARGIN_{i,t} - MARGIN_{i,t-1}$   
Profit Margin (MARGIN) = Net Profit  
Sales revenue
- (2) Turnover of Assets ( $\Delta TURNOVER$ ) =  $URNOVER_{i,t} - TURNOVER_{i,t-1}$   
TURNOVER = Sales Revenue/Total assets

In the second step, following Banerjee and Deb (2017), each of the aforementioned variables is coded:

- $F\_ROA = 1$ , if  $ROA > 0$ , 0 otherwise.
- $F\_CFO = 1$ , if  $CFO > 0$ , 0 otherwise.
- $F\_ΔROA = 1$ , if  $ΔROA > 0$ , 0 otherwise.
- $F\_ACCRUALS = 1$ , if  $ACCRUALS < 0$ , 0 otherwise.
- $F\_ΔLEVERAGE = 1$ , if  $ΔLEVERAGE < 0$ , 0 otherwise.
- $F\_ΔLIQUIDITY = 1$ , if  $ΔLIQUIDITY > 0$ , 0 otherwise.
- $F\_ΔEQUITY = 1$ , if  $ΔEQUITY < 0$ , 0 otherwise.
- $F\_ΔMARGIN = 1$ , if  $ΔMARGIN > 0$ , 0 otherwise.
- $F\_ΔTURNOVER = 1$ , if  $ΔTURNOVER > 0$ , 0 otherwise.

In the third step, we calculate the F-Score index and form the F-Score portfolio for performance tracking. The model designed to calculate the index is as follows:

$$F\_SCORE_{firm} = F\_ROA + F\_CFO + F\_ΔROA + F\_ACCRUALS + F\_ΔLEVERAGE + F\_ΔLIQUIDITY + F\_ΔEQUITY + F\_ΔMARGIN + F\_ΔTURNOVER$$

This way, the F-Score index is calculated for the company-years.

## Control variables

$BMI_{i,t}$  = growth opportunities of company  $i$  in year  $t$  used to measure the Kyotubin index:

$$Q = (MVE + PS + DEBT) / TA$$

Where: MVE = multiplication of company stock price and number of ordinary shares issued; PS = liquidity value of preference shares outstanding (which equals zero in Iran); DEBT = book value of debt; and TA = Book value of total assets.

$SIZE_{i,t}$  = the size of the company  $i$  in year  $t$ , which is the natural logarithm of the total assets.

$Growth_{i,t}$  = growth of company  $i$  in year  $t$ , which is equal to the net proportion of investment activities (excluding cash flow) to total assets.

$LEVI_{i,t}$  = the financial leverage of company  $i$  in year  $t$  equal to the ratio of liabilities to assets.

$LOSS_{i,t}$  = Loss of company  $i$  in year  $t$  if the company has a net loss, the variable will be set to one, otherwise it will be zero.

$EQ_{i,t}$  = the profit quality of company  $i$  in year  $t$ , which is used to calculate the modified Jones approach. In this method, optional accruals are estimated in two stages. First, the total accruals variable is included in the regression consisting of the key variables that are expected to affect it. As follows:

where in:

TAC<sub>i, t</sub> = total accruals (minus cash flow) of company i in year t

TA<sub>i, t-1</sub> = total assets of company i in year t-1;

ΔSALES<sub>i, t</sub> = Changes in sales revenue of company i in year t equal to sales revenue in year t minus sales revenue in year t-1;

ΔREC<sub>i, t</sub> = Changes in accounts receivable of company i in year t equal to accounts receivable in year t minus accounts receivable in year t-1; and

PPE<sub>i, t</sub> = Company property, plant and equipment i in year t.

After estimating the above model at the aggregate level of data and calculating the values of B0, B1 and B2, the estimated coefficients are used to calculate optional accruals (DA) as follows.

The higher the value of voluntary accruals, the lower the quality of earnings, and so the value of the optional accruals multiplied by a negative is used as a measure of earnings quality.

ISSUE<sub>i, t</sub> = Release of company stock i in year t if this company issues stock, this variable is set to one and otherwise it will be zero.

INTAN<sub>i, t</sub> = Intangible assets of company i in year t equal to the ratio of intangible assets to total assets.

Ent-Cost<sub>i, t</sub> = Costs of entering the enterprise industry i in year t equal to the average ratio of property, plant and equipment to total assets of firms in the industry (Jiang et al., 2015).

Inform\_Asy<sub>i, t</sub> = Company information asymmetry i in year t, calculated as follows:

where in:

AP = daily average bid price of company stocks;

BP = Average daily bid price of company stocks.

Inst\_Owner<sub>i, t</sub> = Institutional ownership of company i in year t equal to the percentage of shares owned by banks and insurance companies, holding companies, investment companies, pensions, venture capital funds and venture capital funds Government agencies and institutions and government corporations.

## Results

### Descriptive Statistics

In general, the methods by which the collected information can be processed and summarized are called descriptive statistics. This type of statistics merely describes the community or sample and is intended to calculate the community or sample parameters of the study. The sample consisted of 112 companies during the period 2008-2017. In this section, mean, median, standard deviation, maximum, minimum, skewness and elongation of the variables used are calculated and are listed in Table.

### Inferential statistics

#### Main hypothesis

In order to estimate the coefficients of the model the main research hypothesis using the fixed effects method is presented in Table 3.

Since t-statistic of voluntary disclosure of non-financial information \* Corporate power is greater than + 1.965 and their significance level is less than 0.05, there is a significant and direct relationship between voluntary disclosure of non-financial information \* of corporation power and sustainability performance. Thus, the main hypothesis of the present study that the power of the firm is effective on the relationship between voluntary disclosure of non-financial information and firm sustainability performance is confirmed.

**Table 3.** Result of Main hypothesis

Variable	Coefficients	T statistics	standard error	Significance level	VIF
Constant	0.087-	-10.712	0.008	0.000	-

Voluntary disclosure of prospective non-financial information	0.131	5.39	0.024	0.000	1.869
Growth opportunities	-0.009	-8.11	0.001	0.000	1.149
size of the company	0.006	16.561	0.0003	0.000	1.456
company's growth	-0.02	-3.009	0.006	0.002	1.055
Financial Leverage	0.031	9.723	0.003	0.000	1.118
Loss	0.004	2.419	0.001	0.015	1.205
Quality of benefit	0.025	4.826	0.005	0.000	1.082
Release of shares	-0.003	-2.852	0.001	0.009	1.076
Intangible assets	0.1	1.581	0.063	0.114	1.079
Costs of entering the industry	0.002	0.776	0.002	0.437	1.109
Information asymmetry	0.008	1.488	0.005	0.137	1.016
Institutional ownership	-0.008	-4.578	0.001	0.000	1.067
Corporate power	0.03	2.618	0.011	0.009	1.999
Voluntary Disclosure of Prospective Non-Financial Information * Corporate Power	0.029	5.248	0.005	0.000	2.568
The coefficient of determination	0.858	703.58	F statistics	The coefficient of determination	0.858
Adjusted coefficient of determination	0.836	0.0000	Significance level of statistic F	Adjusted coefficient of determination	0.836

## Conclusion

The results showed that firm strength enhances the direct relationship between voluntary disclosure of non-financial information and its dimensions with firm sustainability performance. In this regard, it is necessary to explain that managers of companies with insufficient power may manipulate their financial information to hide or delay an inappropriate financial situation. Therefore, managers of non-financial corporations are more likely to have a lack of transparency and to avoid disclosing supplementary and voluntary information. When a company lacks financial strength, it faces one of two possible contradictions: a lack of cash in the balance sheet assets or debt inflation on the left side of the balance sheet. Of course, both have the same consequences, and cash flows are not enough to cover financial liabilities. This is forcing companies to negotiate with creditors about the postponement of their debt repayments during a period when the company is struggling with financial restructuring and corporate success rates. These negotiations

depend on their bargaining power. When a company has sufficient financial strength, it will not face the problem of raising capital and financing. Therefore, companies that do not have the power to do so have a low level of investor acceptance, and as such, the tendency for such companies to become more transparent and reporting is diminished. As such, the strength of the company strengthens the direct relationship between voluntary disclosure of non-financial information and firm sustainability performance. This result is in agreement with the results of Brown et al. (2011), Kim et al. (2014), Hassan (2016), Hang et al. (2017), Otcheva (2017) and Haji and Chenari Boukett (2016) and in contrast to the results. Davis et al. (2016), Hui et al. (2017) and Khawaji and Alizadeh (2013).

Based on the results, investors in listed companies in the Tehran Stock Exchange are advised to consider the positive impact of voluntary disclosure of non-financial information on firm performance, considering the level of Firms with more power will have the positive effect of voluntary disclosure of non-financial information on sustainability performance than other firms. Sustainability is the ability of an organization to firmly pursue activities and exert its effects on environmental, social, and human capital in order to manage them. A company focused on sustainability is a company that has developed over time through the management of its economic, social and environmental dimensions of its operations and activities. As such, investing in the stocks of better performing companies can improve the economic status of investors as well as improve the economic status of the community. In addition, it is clear that firms with poor performance are likely to receive little favor from investors and, under these conditions, their tendency for transparency and reporting is diminished. Therefore, increasing the power of corporations will result in the voluntary disclosure of non-financial information by corporations expanding to a greater extent and having a more positive impact on firm performance and sustainability.

## References

- Andrade, G. and Kaplan, S. (1998). **How Costly is Financial (Not Economic) Distress?** Evidence from Highly Leveraged Transactions that Became Distressed. *Journal of Finance*, 53 (5), 1443-1493.
- Bashiri Manesh, Nazanin and Rahmani, Ali. (2016). **Formulating an Optional Disclosure Pattern: A Tool for Management Accounting.** *Accounting Knowledge and Auditing Management*, 5 (19), 27-46.
- Brown, D., James, C. and Mooradian, R. (2011). **The Information Content of Distressed Restructurings Involving Public and Private Debt Claims.** *Journal of Financial Economics*, 33, 93-118.
- Brown, S. and Hillegeist, S.A. (2007). **How Disclosure Quality Effects the Level of Information Asymmetry?** *Spring Science Business Media*, 12, 443-477.
- Hamidian, Mohsen Hajjiah, Zohreh and Taghizadeh, Nafiseh. (2013). **The usefulness of voluntary disclosure for investor judgment.** *Economic Modeling*, 11 (40), 137-155.
- Healy P, and Palepu, K. (2001). **Information asymmetry, corporate disclosure and the capital markets: a review of the empirical disclosure literature.** *Journal of Accounting & Economics*, 31, 405-440.
- Healy, P.M. and Whalen, A. (1999). **A review of the earning management literature** and its implication for standard setting. *Accounting Horizons*, 3 (7), 363-365.
- Hung, M., Jing, S. and Wang, Y. (2017). **The Effect of Mandatory CSR Disclosure on Information Asymmetry: Evidence from a Quasi-natural Experiment in China.** <http://www.ssrn.com>.
- Mechelli, A., Cimini, R. and Mazzocchetti, F. (2017). **The usefulness of the business model disclosure for investors' judgements in financial entities.** A European study. *Revista de Contabilidad – Spanish Accounting Review*, 20 (1), 1–12.

Outecheva, N. (2017). **Corporate Financial Distress: An Empirical Analysis of Distress Risk**. University of St. Gallen, Graduate School of Business Administration.

Qu, W., Cooper, J., Wise, V. and Leung, P. (2012). **Voluntary disclosure in a changing regulatory environment** – evidence from Chinese stock market. *International Journal of Economics and Finance*, 4 (4), 30-43.

Sajjadi, Hussein and the Old Banai, Rahim (2014). **Sustainable Performance Management Systems and Indicators**. *Accounting Research*, 15, 69-82.

Sneirson, J.F. (2008). **Green is Good: Sustainability, Profitability, and a New Paradigm for Corporate Governance**. *Iowa Law Review*, 94 (3), 20-29.

Recebido em 20 de dezembro de 2019.

Aceito em 21 de fevereiro de 2020.