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## CEO Power and Sustainability Reporting in Iran: Effect of Life Cycle and International Relations

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### Abstract

In recent years, corporate sustainability reporting and its effective dimensions on it have always been considered from the perspective of users of financial reporting. Sustainability reporting is the environmental, social, and economic achievements of a company and shows how the organization implements its development plans in the future, taking into account these issues. In this study, the relationship between CEO power, life cycle, and sustainability reporting has been investigated and the effect of international relations has been considered. To investigate this issue, 4 hypotheses were developed and tested with a sample consisting of 119 companies listed on the Tehran Stock Exchange in the period 2012 to 2019. The results showed that CEO power has a negative effect on sustainability reporting and life cycle has a positive effect on the relationship between CEO power and sustainability reporting. The results of the study did not confirm the adjusting effect of international relations on the relationship between CEO power and sustainability reporting, while the results showed that international relations hurt the relationship between life cycle and corporate sustainability reporting.

**Keywords:** CEO Power, Life Cycle, International Relations, and Sustainability Reporting.

## Introduction

The issue of corporate sustainability is part of sustainable development, which was first raised in 1987 by the World Development and Environment Committee on greenhouse gases (Mehrani and Shaker Taheri, 2020). Sustainability reporting has become commonplace, especially for large corporations (Boiral & Saizarbitoria; 2020). Based on the theory of legitimacy and the theory of stakeholders, companies use sustainability reporting as a tool to communicate with society and the environment, and as a way of governing in interaction with various stakeholders, to be accepted in society and Continue to operate with a good outlook (Correa et al., 2020). Sustainability is related to an organization's capacity to understand economics, social, and environmental development (Liu et al., 2019). Different views and definitions have been provided by researchers for corporate sustainability and attention to sustainability have become a vital element in most corporations in the world.

Since the mid-twentieth century, the pressure on large corporations to pay attention to the sustainability reporting and accountability for overall performance outcomes that go beyond financial performance has increased. The demand for sustainability management stems from a variety of reasons, including the social provisions of the law, the fear of declining sales, and the reputation of a company that does not commit to sustainability management. Also, by raising public knowledge and awareness and increasing sensitivity about environmental and social issues, shareholders and stakeholders put pressure on the company to pay more attention to the sustainability of the company (Lee and Farzipour, 2012).

In Iran, at present, there are no specific rules and standards for corporate sustainability reporting in the annual reports at the company level, but different internal and external factors affect the sustainability reporting of organizations. The role of board members on sustainability reporting has been the subject of much research (Frias et al., 2013; Fuente et al., 2017; Kaymak & Bektas, 2017; Correa et al., 2020). But the effect of CEO power on sustainability reporting has not yet been investigated in the research. In recent decades, special attention has been paid to the impact of the CEO at the organizational level. In some companies, the CEO makes all the major decisions, although in other companies the decisions are clearly the result of consensus among senior executives (Adams et al., 2005). If different people have different opinions, then the distribution of decision-making power within companies can affect the type of decisions made. Larcker and Tayan (2012) argue that it is not yet clear whether CEO power has a positive or negative impact on the organization. But

most previous research has shown that CEO power harms organizational performance (Harper et al., 2020). The effect of CEO power on performance and reporting in companies has been examined in previous research (Harper et al.; 2020; Deboskey et al., 2019; Baker et al., 2019; Gong and Tang, 2019), but the effect of CEO's power on sustainability reporting has not been addressed yet. So it is interesting to investigate this issue.

Another issue that affects sustainability reporting is the life cycle. One of the salient features of companies is their different life cycle.

According to life cycle theory, companies in different stages of the life cycle have financial and economic characteristics and behaviors, so that the financial and economic characteristics of a company is affected by a stage of the life cycle in which it is in (Baxter, 2007). Teece and Pisano's life cycle stage affects the amount and manner of its sustainability reporting.

Another interesting topic is the company's international relations. According to signaling theory, sustainability disclosures convey different messages to the market. Sustainability reporting attracts capital and increases value by reducing information asymmetry and helping to increase competitive advantage (Bae et al., 2018). Accordingly, it is expected that companies with international relations send positive signals to the market and receive a positive response through more comprehensive sustainability reporting.

The purpose of this study is to investigate the effect of CEO power on sustainability reporting and to investigate the adjustment effect of the life cycle and international relations on this relationship.

### **Previous literature and hypothesis development**

The most powerful and influential person in companies influencing various factors, including company strategies, is the CEO (Kato and Long, 2006). When a CEO is stronger, decisions with wider consequences are more likely to occur. Companies that have a strong CEO are more likely to make very good or even very bad decisions (Adams et al., 2005). According to agency theory, the company's main objective is to maximize shareholder wealth, and any use of resources that does not directly increase shareholder wealth is considered a waste of company resources (Sheikh, 2019). Accordingly, the use of company resources in the areas of social responsibility and the field of sustainability reporting is a waste of resources. Increasing the power of the CEO increases his ability to influence investment decisions (Surroca & Tribo, 2008) and the powerful manager uses the company's resources for sustainability reporting to maintain his credibility. In fact, according to agency theory, powerful

managers tend sustainability reporting to increase their credibility.

On the other hand, according to stakeholder theory, the value of the company is influenced by many stakeholders, and any value creation for these stakeholders, which includes shareholders, customers, employees, and the whole community, increases the value of the company. According to the resource-based view (RBV) theory, the value of a company depends on its competitive position and competitive position enables companies to create value (Sheikh, 2019; Russo & Fouts, 1997). Sustainability reporting is also a competitive advantage that is considered an important source of strategy. According to RBV theory and stakeholder theory, managers follow sustainability reporting, not for personal purposes but to create a competitive advantage and increase stakeholder interests. Therefore, CEO power does not affect sustainability reporting. So the following hypothesis is proposed to test the prediction of agency theory versus RBV theory and stakeholder theory:

**Hypothesis 1:** CEO power has a significant effect on sustainability reporting.

In the early stages of the life cycle, companies have high growth potential, and while the investment opportunities available to them are high, free cash flow is low. Conversely, in older companies, cash flow is high and investment opportunities are low. Accordingly, companies at different stages of the life cycle take different discounts and actions to attract investors. Also, companies send different signals to the market at different stages of the cycle about their growth prospects. Therefore, it can be predicted that the provision of information varies according to the different stages of the life cycle of companies (Chuang, 2020).

Numerous studies investigate the effect of life cycle on dividend payment (DeAngelo et al., 2006), stock repurchase (Liang et al., 2013), merge and acquisition (Owen and Yawson, 2010), social responsibility (Al-Hadi et al., 2019), sustainability reporting (Stewart et al., 2018) and performance (Harper et al., 2020, Chuang, 2020). But the effect of the life cycle on sustainability reporting is a remarkable and overlooked topic. Mature companies are concerned about their reputation and the type of interaction they have with their stakeholders and are more likely to report sustainability than companies that are in a period of growth or decline. In fact, in the early stages as well as in the life cycle decline phase, social responsibility actions and sustainability reporting are of lower importance to companies than providing the capital needed for company survival, growth, innovation, and financing. The reason for this is that these companies have more uncertainty about the flow of their revenues, expenses, and investments (Dickinson, 2011; Al- Hadi et al., 2019).

Mature companies have less uncertainty about their profits, cash flows and financial crisis and are more inclined to enter sustainability reporting. The reason for this may be that the managers of these companies have a better understanding of the environment in which they operate and have more resources available to enter into sustainable activities. But young companies are concerned with achieving growth goals, ensuring that there are sufficient resources to enter new markets and developing new product lines, and are likely to spend fewer resources on social responsibility activities and reporting in this area (Al-Hadi et al., 2019). Considering the effect of the life cycle on sustainability reporting, the second hypothesis is formulated as follows:

**Hypothesis 2:** Life cycle has a significant effect on corporate sustainability reporting.

Each company's strategic decisions send messages about its commitments and innovations that affect the company's reputation and its relationship with stakeholders. Also, positive signals increase the value and performance of the company, while negative messages reduce the company's stock price and its product demand (Bae et al, 2018). Sustainability reporting is a positive signal to the market.

These messages become more important, especially when the company is involved in foreign trade relations. Accordingly, another factor that can affect sustainability reporting is the company's international communications, which has not been considered in research so far. Companies with international relations that aim to send positive messages to the market and gain the trust of customers are likely to be more motivated to sustainability reporting. These international communications affect both the relationship between the life cycle and sustainability reporting, as well as the relationship between CEO power and sustainability reporting. Based on this, the third and fourth hypotheses of the research are formulated as follows:

**Hypothesis 3:** International relations have a significant effect on the relationship between CEO power and sustainability reporting.

**Hypothesis 4:** International relations have a significant effect on the relationship between the life cycle and sustainability reporting.

## Background

Boiral and Heras (2020), examined the sustainability reporting assurance. Qualitative content analysis of 337 guaranteed sustainability reports from the mining and energy sectors reveals that assurance statements do not demonstrate

a material, substantial and credible verification process. They tend rather appear as a hyperreal practice largely discovered from critical sustainability issues and stakeholder concerns. Fang et al. (2020) in a study examined the effect of CEO power on the board of directors in Chinese banks. They studied the three main types of banks during the period 2006-2016. The results showed that the power of the CEO directly increases the profitability, risk-taking and quality of lending in banks. The stronger board also reduces the positive effect of CEO power on profitability. Correa et al. (2020) in a study examined corporate governance and its implications for the quality of sustainability reporting in Latin American business groups. With a sample of 324 companies during the period 2011-2015, the results showed that the intensity of control over companies has a negative impact on the quality of sustainability reporting. Variables such as foreign ownership, business age, and board size help business groups improve the quality of their sustainability and voluntary disclosure methods. Al-Shaer and Zaman (2019), examined the CEO compensation and sustainability assurance in 350 British companies in the period 2011-2015. Khalid et al., (2017), examined how corporate characteristics could influence the amount of Corporate Social and Environmental Disclosure (CSED) in the manufacturing sector in Jordan. Firm size, profitability, audit firm, ownership, type of industry and financial market level are the main factors examined in this study. Using panel data regression, they model the relationship between disclosure amount and the key drivers of CSED via random effect estimation. The results of their model indicated that the firm size, type of audit firm and financial performance in Amman Stock Exchange (ASE) are significantly associated with the amount of CSED. On the other hand, they also find that firm profitability, age, type of industry and ownership are not related to the practices of CSED.

Geez et al. (2016), in a study entitled "The Resilience of Spanish Companies during the period 2006-2012. The results show that there is a negative relationship between firm stability performance and stock returns. Also, it was found that investing in companies with stable performance not only increases returns in the peak price stage but also prevents shareholders from losing money in the price decline stage. Albrecht (2015), in a study entitled "The relationship between financial return and US stock market", examined the relationship between environmental, social, and organizational indicators and stock returns based on the Fama and French model during the period 1995-2013. The results of the study showed that focusing on environmental, social, and corporate governance (ESG) factors

causes abnormal returns in the study sample. Mahdavi et al. (2015) in a study investigated the relationship between company size, type of industry, and profitability with the disclosure of environmental and social accounting information. Findings indicate that there is no statistically significant relationship between firm size and the level of disclosure of environmental and social information and profitability. Contrary to researchers' expectations, the level of environmental and social information disclosure of companies operating in sensitive industries is lower than that of companies operating in non-sensitive industries.

### Research design and sample selection

This research is causal in terms of the relationship between variables, applied in terms of purpose and descriptive-post-event in terms of method, in which historical information of companies and statistical methods have been used to test the hypotheses. In this study, the panel data method was used to estimate the model.

The statistical population in this study is all companies listed on the Tehran Stock Exchange in the period 2012 to 2019. Financial and insurance companies were excluded from the selected companies, as is common in this type of studies. also, the end of their fiscal year should be the end of March and have not changed their fiscal year during the research period. After reviewing the companies listed on the Tehran Stock Exchange in the research period and applying the following conditions, finally, 119 companies (952 years-company) remained as the research sample.

### Research models and variables

Based on the theoretical foundations of the research, the following model was considered to test the research hypotheses:

$$(SR)_{it} = \alpha_0 + \alpha_1 (CEO\ POWER)_{it} + \alpha_2 (LC)_{it} + \alpha_3 (IR)_{it} + \alpha_4 (CEO\ POWER * IR)_{it} + \alpha_5 (LC * IR)_{it} + \sum_{j=1}^3 \gamma_j (\text{Control variables})_{it} + u_{it} \quad (1)$$

the symbols are as follows:

SR: Sustainability Reporting

CEO POWER: The power of the CEO

LC: Life cycle

IR: International Relations

## Research variables

### Sustainability reporting:

In this study, the level of corporate sustainability reporting (environmental, social, economic disclosure) is considered as a dependent variable. According to the research of Masoumi et al. (2019), 51 indicators are used to measure this variable in Iran. Also, the scoring procedure for measuring the level of corporate sustainability reporting is such that if each item of sustainability items is disclosed, a score of one and if not disclosed, a score of zero will be considered for that item. Finally, the value of sustainability reporting is obtained from the sum of the points allocated to these items for each company. The necessary information for these variables is disclosed in the report of the board of directors of the companies. Table 1 shows the components and indicators related to economic, social, and environmental dimensions.

Table 1. Dimensions of sustainability reporting

Indicator	Component	Dimensions
Economic added value	Economic performance	Economic
Coverage of goals and requirements defined in company plans		
Return on assets		
Financial consequences and other risks and opportunities for the organization's activities due to changing weather conditions		
Value-added report		
Company market share in the whole industry and the local area	Presence in the market	
Growth or changes in market share and forecasting it in the future		
Trends and changes in quantity/sales according to products/region/customers, etc.		
Technological and regulatory trends and changes affecting markets and products in the region or indigenous environment		
Changes in the market and competitors in the industry and region (advantages and competitive pressure) and its outlook	Indirect economic effects and responsible investment	
Significant indirect economic effects include currency savings and so on		
Expenditures and social investment by type and scope		
Production efficiency indicators and company labor force	Work and staff and human rights	
Total staff by type of employment, age group, geographical area, gender, etc.		
Benefits provided to full-time employees not provided to temporary or part-time employees, according to important points (locations) of operations		
Employee-owned shares		
Retirement and post-employment benefits		
Staff sports and welfare programs		
Employee loan and insurance programs		
Occupational health and safety issues		



Average annual training hours of each employee according to their gender and class		
Scholarship Programs Fund (scholarship) and related gifts		
Violation reporting system, criticisms and suggestions		
Support the development of small industries and entrepreneurs, especially indigenous/local people	Community participation and development	
Awards and certificates received related to social, cultural, environmental, educational and sports activities		
Consumption resources and cash grants, products, services to support social, educational, upbringing and artistic activities		
Benevolent and non-profit contributions		
Hiring a part-time student for an internship		
Supporting educational conferences and art exhibitions		
Social, cultural and religious activities		
Membership in national/regional/international associations, institutions and communities active in the field of sustainability and social responsibility		
Financial assistance to victims of natural disasters, including floods, earthquakes, etc.		
after-sales services		Product support and business ethics
Satisfaction and responding to customer needs		
Product research and development programs		
Identity, regulations, ethical and social charter of the company		
The amount and value of raw materials consumed, directly and indirectly	Raw materials, water and energy	
Total water withdrawn by source		
The volume of water recycled and reused		
Direct and indirect energy consumption by source and amount		
Renewable energy production and consumption programs		
Reducing energy consumption	Emissions and waste disposal	
Measures are taken to reduce greenhouse gas emissions, methods and criteria for elimination of gases and results		
Procedures for how to reduce high-risk and safe waste and proper disposal of waste with respect to environmental issues		
Total weight of waste by type and method of disposal	Environmental effects of products and services	
Reducing the impact of environmental impacts of products and services (soil, forest, etc.)		
Describe activities to address environmental issues from the perspective of customers, consumers and the company's supply chain		
Design of environmentally friendly facilities and equipment and environmentally friendly products		
Informing and providing advice to the company's customers for consumption with environmental considerations and reducing its harmful environmental effects		
Company ID, regulations and environmental charter	Observance of environmental laws and regulations	
Lawsuits arising from environmental issues		

environmental

### CEO power

CEO power is a dummy variable coded one if the CEO is strong, and zero otherwise. Using the research of Li et al. (2017), the indicators for measuring the power of the CEO were presented as follows:

**CEO tenure:** If the tenure of the CEO is longer than the average tenure of the CEO of that industry, it is one, otherwise it is zero.

**TITLE:** If the CEO is the chairman of the board, it is coded one, otherwise it is zero.

**Ownership of the CEO (CEOWNP):** If the CEO owns more than 10% of the company shares, it is coded one, otherwise it is zero.

**Founder CEO:** If the CEO is one of the founding members of the company, it is coded one, otherwise it is zero.

**Specialist CEO:** If the CEO has a master's degree or higher in finance such as accounting, management, and economics, it is coded one, otherwise it is zero.

Finally, to calculate the CEO power index, all the criteria are added together and divided by the number of criteria. If the CEO power index is higher than the average value, the CEO falls into a powerful category.

### Life cycle

Anthony and Ramesh (1992) model is used to measure the life cycle of the company. According to this model, the variables of sales growth, capital expenditures, and dividend profit ratio are used to determine the life stage of each company. To determine corporate sales growth (SG<sub>it</sub>), the following relation is used:

$$SG_{it} = [(sale_{it}/sale_{it-1}) - 1] * 100 \quad (2)$$

Sale<sub>it</sub>: Sales revenue

The following relationship has been used to determine corporate capital expenditure (CE<sub>it</sub>):

$$CE_{it} = [Market Value / Additions (Decreases) Fixed Assets During the Period] * 100$$

To determine the corporate dividend ratio (DPR<sub>it</sub>), the following equation is used:

$$DPR_{it} = [DPS_{it}/EPS_{it}] * 100 \quad (3)$$

DPS<sub>it</sub>: Dividend per share

EPS<sub>it</sub>: Earnings per share

As shown in Table 2, the calculated values of these variables are divided into statistical quintiles and are assigned 1 to 5 per quintile according to Park and Chen (2006) method.

The numbers assigned to the variables for each year are then added to each year. The minimum and maximum scores of the company each year can be 3 and 15.

Table 2. Determining the scores of variables according to Park and Chen (2006) method in Anthony and Ramesh model

quintiles	Sales Growth (SG)	Dividend Ratio (DPR)	Capital Expenditure (CE)
First quintile	1	5	1
Second quintile	2	4	2
Third quintile	3	3	3
Fourth quintile	4	2	4
Fifth quintile	5	1	5

Finally, the life stage of each company is determined based on the following conditions:

1. If the total score of the company is between 3 and 6, it is in the decline stage.
2. If the total score of the company is between 7 and 10, it is in the maturity stage.
3. If the total score of the company is between 11 and 15, it is in the growth stage.

**International Relations:** If the company exports, it is coded one and otherwise zero.

**Control variables:** Research control variables include firm size, firm liquidity, and firm life.

**company size:** Considering that larger companies are more in the spotlight and this makes them more likely to report information on sustainable activities more appropriately, size is considered as a control variable. Taken (Akbas, 2014). Company size is measured through the natural logarithm of the book value of company assets (Madugba et al, 2020).

**Company liquidity:** Companies with higher liquidity rates are expected to disclose more information to be distinguished from companies with lower liquidity (Alsaeed, 2005). Therefore, corporate liquidity, which is measured by dividing cash into total assets, was considered as a control variable (Latridis, 2011).

**Company life:** The variable of company life is expected to play an important role in the disclosure of company information. Older companies disclose more information to maintain their reputation (Bolton, 2013).

The life of the company, which is measured by the years listed on the stock exchange, was considered as a control variable (Zahid et al., 2020).

## Research Findings

Table 3 shows an overview of the descriptive statistics of variables.

According to Table 3, the average CEO power shows that 87% of companies in the study population have a strong CEO. The standard deviation obtained for this variable (0.34) shows that the average fluctuation of the mean of the data for this variable is 0.34. The mean of the international relations variable is 0.73; That is, only 73% of the observations have international relations. The standard deviation obtained for this variable (0.44) shows that the average fluctuation of the mean of the data for this variable is 0.44. The average liquidity variable of the company with a value of 0.05 shows that the average ratio of cash flow to total assets among the companies in the sample is 5%. The maximum of this variable with the value of 0.82 indicates that the company is in the present sample that the ratio of cash flow to total assets is 82%. The standard deviation obtained for this variable (0.10) shows that the average fluctuation of the mean of the data for this variable is 0.10. Also, the average age of the company in the present sample is 18.15 years.

Table 3. Descriptive statistics of research variables

age	liquidity	size	International relation	Life cycle	CEO power	Corporate sustainability	
18/15	0/05	14/28	0/73	1/75	0/87	13/61	mean
16/00	0/03	14/12	1/00	2/00	1/00	15/00	median
51/00	0/82	19/77	1/00	3/00	1/00	24/00	maximum
4/00	0/00	10/17	0/00	0/00	0/00	3/00	minimum
9/04	0/10	1/58	0/44	0/51	0/34	5/07	Std.deviation

In the regression model, if the correlation between the independent variables is high, it may lead to distortion of the results. A high correlation means a correlation greater than 0.50. As shown in Table 4, there is no correlation between the variables greater than 0.50.

Table 4. Correlation results between variables

AGE	liquidity	SIZE	IR	LC	CEO	SR	
0/16	0/00	0/47	0/34	0/05	0/14	1/00	SR
-0/04	0/04	0/08	0/02	-0/01	1/00	0/14	CEO
-0/05	0/06	0/08	0/13	1/00	-0/01	0/05	LC
0/05	0/00	0/34	1/00	0/13	0/02	0/34	IR
0/03	-0/15	1/00	0/34	0/08	0/08	0/47	SIZE
-0/06	1/00	-0/15	0/00	0/06	0/04	0/00	liquidity
1/00	-0/06	0/03	0/05	-0/05	-0/04	0/16	AGE

### Research Hypothesis Test Results

The results of the analysis of the linear regression model of the research hypothesis are described in Table 5. According to the probability of F statistic calculated in Table 5, the significance of the model is 0.00. The significance of the model is confirmed and it is determined that at least one of the coefficients of the regression model is opposite to zero. The value of Durbin-Watson was 2.09 which, can be said that there is no autocorrelation of the first type.

The value of the adjusted coefficient in the estimated results of the regression model of the research is equal to 0.64, which shows that about 64% of the dependent variable is explained by independent and control variables. The results of fitting the model show that there is a significant relationship between CEO power and dependent sustainability reporting. It can be concluded that there is a significant negative relationship between CEO power and sustainability reporting. Therefore, the first hypothesis of the study is confirmed and it is concluded that CEO power has a significant negative effect on corporate sustainability reporting.

The results also show that there is a significant relationship between the life cycle and sustainability reporting. According to the coefficient obtained for the life cycle variable (0.04) and the level of significance, It is concluded that there is a positive and significant relationship between the two variable, so the second hypothesis of the research is confirmed and it is concluded that the life cycle has a positive and significant effect on corporate sustainability reporting.

The coefficient of simultaneous effect of CEO power and international relations (CEO\_POWER \* IR) is not significant and therefore the third hypothesis of the research is not confirmed.

The results show that international relations have a significant effect on the relationship between the life cycle and sustainability reporting.

Given the coefficient obtained for (LC \* IR) with the value (0.4) - and considering its significance, it can be concluded that international relations play a mediating role in the relationship between life cycle and sustainability reporting. Therefore, the fourth hypothesis of the research is confirmed, and it is concluded that international relations have a negative and significant effect on the relationship between life cycle and corporate sustainability reporting.

Table 5. Research model test results

g	t	Standard deviation	Model coefficient	Variable
0/00	14/06	0/19	2/63	C
0/01	-2/48	0/01	-0/03	CEO_POWER
0/00	3/80	0/01	0/04	LC
0/35	0/94	0/04	0/03	IR
0/08	1/78	0/03	0/06	CEO_POWER*IR
0/00	-3/32	0/01	-0/04	LC*IR
0/00	-3/87	0/01	-0/05	SIZE
0/18	-1/35	0/04	-0/05	CASH
0/00	6/65	0/00	0/03	AGE
	0/00		0/65	R square
	1/95	DW	0/64	Adjusted R square
	952	N	70/50	F

## Conclusion

Based on the results of testing the first hypothesis, the power of the CEO has a negative effect on sustainability reporting. So companies with more powerful CEOs are less likely to present sustainability reporting.

This result is consistent with previous research showing that CEO power exacerbates agency problems and decline corporate performance (Bebchuk, 2011; Harper et al., 2020) and contrasts with of agency and stakeholder theory and resource-based view that respectively predicted a positive relationship and a lack of relationship between CEO power and sustainability reporting.

According to the results of this study, stronger CEOs with more confidence in their survival or confidence in other job options and by reducing the power of the board, have no incentive to report on social and environmental activities and accountability about sustainability dimensions of the company.

The results of testing the second hypothesis of this study show that the life cycle has a positive effect on corporate sustainability reporting. So,

companies are more likely to report sustainability as they enter higher cycle stages. Mature companies experience stable and balanced sales and think about maintaining their position in society and maintaining their legitimacy, in addition to profitability goals. In decline phases of firms' life cycle, they are in a very competitive environment, and to maintain a competitive position more present sustainability reporting. In fact, the experience and capabilities of organizational maturity empower mature companies in the field of social responsibility investment, so the focus on sustainability reporting increases. This result is consistent with the arguments that mature companies pay more attention to social responsibility activities due to sufficient resources at their disposal (Monzur et al., 2015). From these arguments, it can be predicted that paying attention to social responsibility activities will lead to paying attention to sustainability reporting, which the research results also confirmed this prediction. The results of testing the third hypothesis of the research showed that international relations do not affect the relationship between CEO power and sustainability reporting.

According to the results of this study, the presence or absence of international relations in Iranian companies does not change the negative relationship between CEO power and sustainability reporting. This means that companies with high CEO power are less likely to present sustainability reporting, even if they have international relationships and need to send positive signals to the market to develop them.

The results of the testing fourth hypothesis show that international relations have a negative effect on the relationship between life cycle and sustainability reporting. So, the existence of international relations makes the relationship between the life cycle and sustainability reporting negative. That is, in companies with international relations, in the early stages of the life cycle, they report more on sustainability, and when they mature and decline, they report less on sustainability. This shift in pattern, despite international relationships, maybe because companies with international exchanges feel the need for more sustainability reporting to maintain these relationships, especially at the beginning stage of their life cycle. It is suggested that future research address the effect of factors such as market condition and board members' expertise on the relationship between CEO power and sustainability reporting. Doing this research again by separating the industries and comparing the results is another proposal for future research

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