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# THE IMPACT OF CEO CHARACTERISTICS ON ENVIRONMENTAL COST ACCOUNTING IN IRAQI PRIVATE COMPANIES

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## Abstract

This study aims to determine the level of personal characteristics and environmental cost accounting of CEOs in private companies in Iraq, descriptive analysis was used to determine the role of CEO characteristics in promoting environmental cost accounting, and questionnaires were distributed to the research sample consisting of (55) companies in Baghdad Governorate, (50) questionnaires were returned and resolved after eliminating (5) questionnaires containing missing values and (5) final sums, the study found that the arithmetic mean of the level of CEO characteristics (3.487) was moderate, while the arithmetic mean of environmental cost accounting was (3.557), the study also showed that there was a significant relationship between CEO characteristics and environmental cost accounting, the study found that there was a significant relationship between CEO characteristics and the dimensions of environmental cost accounting in Iraq (user selection of accounting information, senior management commitment to environmental standards, environmental cost table procedures).

**Keywords:** CEO, Environmental costs, private sector companies.

## Introduction

The characteristics of the chief executive officer (CEO) are key variables that influence various aspects of firm performance, including the accounting of environmental costs. With increasing attention paid to environmental issues by regulators and civil society, CEOs play an important role in selecting and implementing effective environmental accounting practices in the Iraqi private sector. These characteristics include various aspects such as gender, age, education level, professional experience, environmental awareness, and social commitment. Business leaders with a deep understanding of the environment and the ability to integrate it into corporate strategy can directly contribute to promoting environmental accounting practices. Iraqi private companies face various environmental issues as this integration is not limited to compliance with environmental standards but also goes beyond gaining a competitive advantage through improved operational efficiency and reduced pollution and waste costs. Therefore, the role of the CEO in leading environmental initiatives within the company is crucial. This requires clear guidelines for environmental responsibility and the development of accounting systems that can accurately measure and record environmental costs. Management's commitment to providing the necessary resources for training and

development in this area has enhanced its ability to comply with local and international environmental standards, positively impacting its reputation and financial performance. In addition, understanding and analyzing the impact of CEO characteristics on environmental cost accounting is an important step in improving environmental sustainability and cost accounting in Iraqi private sector companies and achieving a sustainable balance between economic and environmental goals.

### **The first topic: research methodology**

#### **First: Research Question:**

##### **Here's how we can identify the main question in the problem::**

"Do CEO characteristics have a statistically significant effect on environmental cost calculations among Iraqi firms?"

#### **Second: Importance of Research:**

This research is significant because it aims to elucidate the value of the association between CEO traits and environmental cost management in Iraqi private companies.

The following aspects explain the significance of this research:

1. Analysis of CEO characteristics of Iraqi private enterprises.
2. Assessment of the level of environmental cost accounting in Iraqi private companies.
3. this study contributes to determining the relationship between CEO characteristics and environmental cost accounting in Iraqi private companies.
4. Emphasis on the importance of CEO characteristics for improving environmental cost accounting in Iraqi private companies.

#### **Third: Objectives of the study**

The following objectives can be set:

1. Analyze the characteristics of CEOs in Iraqi private enterprises.
2. Evaluate the level of environmental cost accounting in Iraqi private companies.
3. Evaluate the impact of CEO characteristics on environmental cost accounting in Iraqi private companies.
4. Propose recommendations to support environmental cost accounting in Iraqi private companies.
5. Analyze the role of CEOs in developing environmental cost accounting.

#### **Study Form:**

The study diagram should show the relationships between the main or sub-study variables under discussion. It shows a chain of links connecting the study variables, as plan (1) shows.

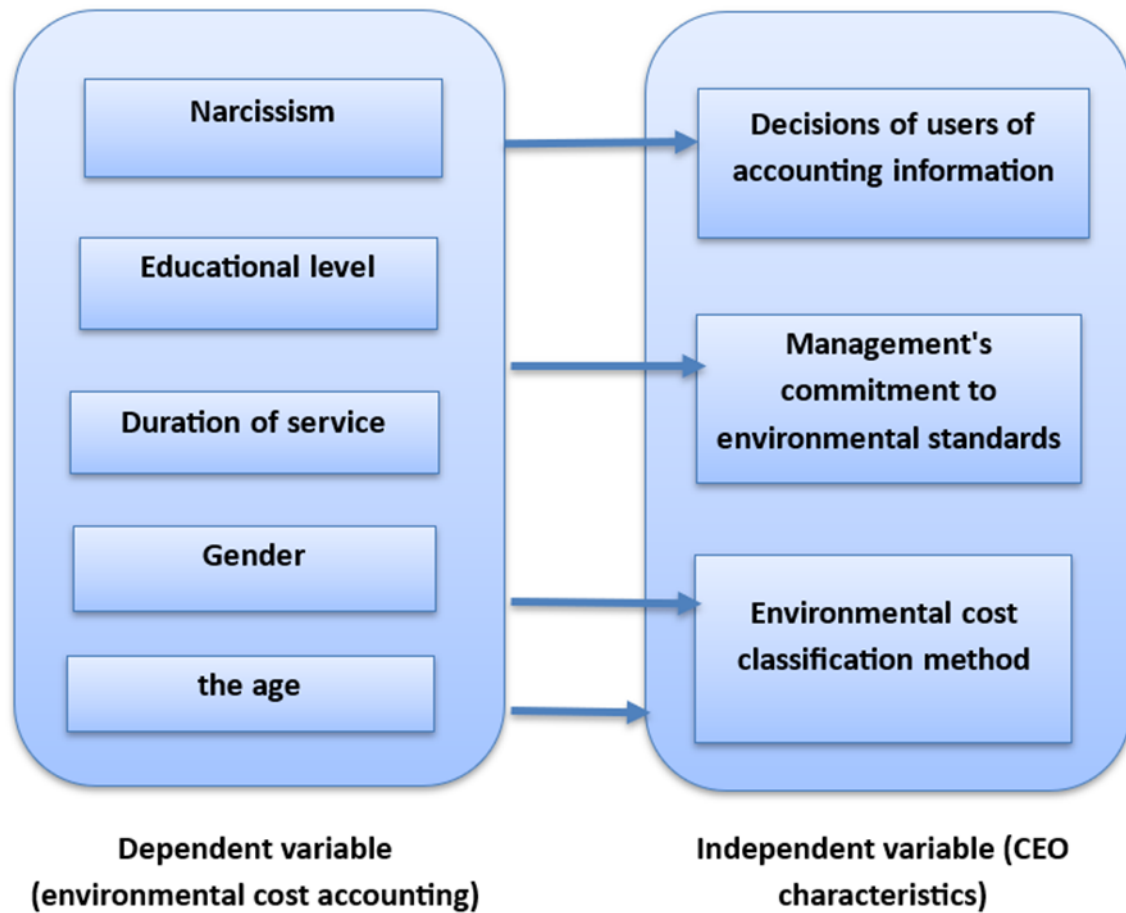


Figure 1 A hypothetical study's outline

#### Fourth: The hypotheses of the research:

The primary and secondary hypotheses can be described as follows:

**The first main hypothesis** is that Iraqi private enterprise CEOs have their characteristics.

**The second main hypothesis** is that Iraqi private companies can use environmental cost accounting.

**The third main hypothesis:** there is a statistically significant correlation between CEO characteristics and environmental cost accounting at a significant level (0.05).

The first sub-hypothesis: There is a significant correlation between the characteristics of the CEO and the number of people who use accounting information to make decisions (0.05).

Second sub-hypothesis: There is a statistically significant correlation between CEO characteristics and management commitment to environmental standards at a significant level (0.05).

Third sub-hypothesis: There is a statistically significant correlation at a significant level (0.05) between CEO characteristics and environmental cost classification methods.

**Limitations of the study:**

**Spatial limitations:** The researchers chose private organizations in the Baghdad region as the research sites and communities.

**Human limits:** Included executives.

**Time limits:** 2025-2026

**Fifth: Study Methodology**

Use descriptive-analytical methods and create a data tool (questionnaire) with study variables to gather, arrange, group, and obtain information.

**Sixth: Research the Community and Sample****Research Community**

Covering all private companies in Baghdad province, including executives, by 2025.

**Study Sample**

A random sample of 50 private companies in Baghdad Governorate was drawn from the study population. Table (1) shows this.

**Table (1): The demographic composition of the study's sample**

figure	Variable	Category	Number of sample members
1	Gender	male	20
		Female	30
Total	50	100	
2	Age Group	Less than 30 years	0
		From 30 to 40 years	7
		From 41 to 50 years	32
		51 years and above	11
Total	50	100	
3	Qualification	diploma	7
		Bachelor	25
		Master	13
		Doctor	5
Total	50	100	
4	Specialization	commerce	12
		meeting	15
		Environment	11
		Other	12
Total	50	100	

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**The second topic: the theoretical concept of research**

**First: The concept of the characteristics of the CEO**

The CEO is the most influential member of the executive committee. Crossland and Hambrick (2007) found a relationship between company performance and senior management - a part of the senior theory. CEO characteristics are believed to influence the strategic decision-making process. Papadakis & Barwise (2002) described CEO characteristics as observable traits rather than psychological characteristics such as age, formal education, professional background, and management time because these characteristics can be observed and measured (Wang, Holmes, Oh, & Zhu, 2016). The behavior of the CEO, such as arrogance and gender diversity, has an important role in the decision of corporate finances, dividends, and governing bodies.

- **Gender**

In measuring CEO traits, gender is closely related to CEO traits, behavioral style, communication style, social relationships, etc., and is considered a factor that affects corporate strategic decision-making (Adams & Ferreira, 2009).

- **lifetime**

Taking the CEO's age into account, older CEOs have more years of experience and history, which can be utilized to influence the CEO's behavior. For instance, according to Hambrick and Mason (1984), younger CEOs' decisions are typically riskier than older managers. This is apparent in their strategic, timely, and performance-related decisions.

- **Education level**

The formal education of the CEO is called the degree. The educational background of managers reveals their knowledge, values, and abilities, which can affect the organization's performance if they can more easily comprehend the environment (Hambrick & Mason, 1984). In addition, the study found that the CEO's education level has a positive impact on the company's strategic actions and future performance (Wang et al., 2016).

- **Managerial experience**

This characteristic refers to the CEO's expertise in a key position, whether in another industry or organization or a strategic move. Prior work experience in any discipline or role can help the CEO better develop the company's strategic practices (Wang et al., 2016). Research shows that broader expertise leads to better and more comprehensive evaluation of alternatives because the CEO can access a wider range of perspectives and skills. (Simons, Pelled, & Smith, 1999)

- **Narcissism**

According to the rules listed in the American Psychiatric Association's (APA; 2013) Diagnostic and Statistical Manual of mental disorders – DSM, narcissism. The DSM describes narcissistic personality as a complex personality that combines grandeur, seeking attention, an overly romanticized image of oneself, a need to improve the self by regulating

one's actions, and a general lack of respect for others. Narcissistic CEOs are likelier to participate in corporate social responsibility initiatives to draw attention and improve their reputation (Petrenko et al., 2016).

### **Second: Accounting for Environmental Costs:**

- **Environmental Accounting:** It is an accounting system that extends the traditional accounting system to identify and determine the impact of environmental costs incurred by an entity based on results and cost-cause analysis (Peter, 2000).

Identify and measure the costs of environmental activities and use this information to make environmental management decisions to reduce and eliminate the impacts of environmental activities and systems on the environment (Al-Tikriti, 2000). Environmental accounting is based on measuring and allocating environmental costs, which must be considered when making management decisions to convey information about the impacts of a company's products, services, and activities on stakeholders. The environmental impacts can be measured in terms of costs and benefits to make informed decisions, and the measurement can be quantitative or cash equivalent (El-Deeb, 2006).

- **Environmental costs:** The monetary and non-monetary impacts of an organization or its activities that affect environmental quality, traditionally expressed as implicit and latent costs and, to a lesser extent, as material costs (Karen, 2000).
- **Decisions of users of accounting information:** Decisions made by people who need financial information for various purposes. Data users include company owners, lenders, shareholders, potential investors, suppliers, and employees (Noor, 2004).
- **Senior management's commitment to environmental standards:** The company management strongly believes that it is important to develop accounting standards for environmental costs, work with them, adopt this concept by developing programs and policies that support environmental costs, provide material and moral support to all accountants, and encourage them to apply this concept (Al-Sharif, 2000).
- **Environmental cost classification procedures:** This includes the presentation of comprehensive data in the recording, calculation, and analysis process and its expression in the annual financial statements, represented by the income statement at the level of microeconomic units, and the preparation of the national balance sheet at the macroeconomic level (Sharif, 2000).

### **The third topic: the practical side**

- **Believe the study tool**

The legitimacy of a research instrument is determined by its capacity to ensure that it measures what it is intended to measure while also measuring the quality and reliability of the instrument, the latter of which has been proven by its authenticity:

First: Apparent Honesty:

The accuracy of the questionnaire content was verified by submitting it in its original form to an arbitration committee consisting of (5) experienced and competent arbitrators regarding



the number of axes, completeness of the language formulation of the paragraphs, their clarity, applicability, and attribution to the axes in achieving the research objectives.

#### • **Stability of the study instrument**

Table 2 depicts the aggregate stability worth, the stability coefficient concerning each axis, and the count of shoulders categorized into each axis. As for the values of the Cronbach alpha coefficient, they all exceed (0.7). Therefore, it is assumed that the instrument comprising the study's conditions was properly developed, prepared, and validated to attain the research goals fully.

**Table (2): The Cronbach's alpha coefficient for the instrument in question**

Axis	Dimension	Number of ferries	Coefficient of stability
<b>Executive Director Characteristics</b>	Narcissism	5	0.797
	Education level	5	0.767
	Length of service	5	0.814
	Total	15	0.912
<b>Environmental Cost Accounting</b>	Decisions of users of accounting information	5	0.826
	Senior management's commitment to environmental standards	5	0.785
	Environmental Cost Differentiation Procedures	5	0.810
	Total	15	0.917
<b>Total stability</b>		30	0.949

#### **Study Results and discussion**

The first main hypothesis is that Iraqi private enterprise CEOs have their characteristics.

**Table (3): T test for the arithmetic average of the characteristics of the CEO**

Axis	Average Arithmetic	Deviation Normative	T value	Function level	Statistical significance
Executive Director Characteristics	3.487	0.549	6.279	<b>0.000</b>	<b>D</b>

Table (3) shows that the arithmetic mean of CEO characteristics is (3.487), the standard deviation is (0.549) at mean levels, and the T value is (6.279) where the significance is greater than the critical value (1.96). The significance level (0.000) is lower than the moral level (0.05), so results show there is a significant difference between the actual arithmetic mean of CEO characteristics of Iraqi private companies and the assumed arithmetic mean (3), so the first main hypothesis is acceptable.

**The second main hypothesis** is that Iraqi private companies can use environmental cost accounting.

**Table 4: T test for the arithmetic mean of environmental cost accounting**

Axis	Average Arithmetic	Deviation Normative	T value	Function level	Statistical significance
<b>Environmental Cost Accounting</b>	3.557	0.679	5.807	0.000	<b>D</b>

The results in Table (4) show that Iraq's environmental cost accounting has an arithmetic mean of 3.557, with a standard deviation of 0.679 (average), and the T value of 5.807 is much greater than the critical value. This has a significance level of 0.000, less than the alpha level of 0.05. It can be seen that the actual arithmetic mean of Iraq's environmental cost accounting is statistically significant. Moreover, the assumed arithmetic mean (3) is acceptable, so the second main hypothesis.

**The third main hypothesis** is a statistically significant correlation between CEO characteristics and environmental cost accounting, with a significant level (0.05) for the sub-hypotheses.

**Table (5): Pearson's correlation coefficient between CEO characteristics and environmental cost accounting**

Axis	Environmental Cost Accounting	Correlation coefficient	Function level	Statistical significance
<b>Executive Director Characteristics</b>		0.761**	0.000	<b>D</b>

**\*\*:** The correlation coefficient is significant at the level of significance (0.01)

The results in Table (5) show that the correlation coefficient between CEO characteristics and environmental cost accounting is (0.761), which is a significant value, and the significance level (0.000) is less than the significance level (0.05), so the third main hypothesis can be accepted.

**The first sub-hypothesis:** There is a significant correlation between the characteristics of the CEO and the number of people who use accounting information to make significant decisions (0.05).



**Table (6): Pearson correlation coefficient between CEO characteristics and accounting information users' decisions**

Axis	Decisions of users of accounting information	Correlation coefficient	Function level	Statistical significance
Executive Director Characteristics		0.819**	0.000	D

**\*\*:** The correlation coefficient is significant at the level of significance (0.01)

As can be seen from Table (6), the correlation coefficient between CEO characteristics and accounting information user decision is (0.819), which is a significant value, The significance level (0.000) is lower than the level of significance (0.05); therefore, the first sub-hypothesis can be accepted.

**Second sub-hypothesis:** There is a statistically significant correlation between CEO characteristics and management commitment to environmental standards at a significant level (0.05).

**Table (7): Pearson correlation coefficient between CEO characteristics and senior management commitment to environmental standards**

Axis	Management's commitment to environmental standards	Correlation coefficient	Function level	Statistical significance
Executive Director Characteristics		0.576**	0.000	D

**\*\*:** The coefficient of correlation is significant at the p-level of significance (0.01)

The results in Table (7) indicate that the association between CEOs' growth and the number of employees is a significant characteristic, and the commitment of senior management to environmental standards is significant (0.576), which is an important value. The significance level is less than the degree of motivation (0.05) (0.000), so the second sub-hypothesis can be considered legitimate.

**Third sub-hypothesis:** A significant correlation is present at a significant distance. (0.05) between CEO characteristics and environmental cost classification methods.

**Table (8): Pearson correlation coefficient between CEO characteristics and environmental cost classification methods**

Axis	Environmental Cost Differentiation Procedures	Correlation coefficient	Function level	Statistical significance
Executive Director Characteristics		0.683**	0.000	D

**\*\*:** The coefficient of correlation is significant at the p-level of significance (0.01)

The results in Table (8) show that the correlation coefficient between CEO characteristics and environmental cost classification methods is (0.683), which is a significant value, The significance level (0.000) is lower than the level of significance (0.05); therefore, the third sub-hypothesis can be accepted.

#### **Fourth Theme: Conclusions and Recommendations**

##### **4.1 Conclusions:**

**So, here is what the study found:**

- CEO characteristics are average (moderate) in Iraqi private enterprises.
- Environmental cost accounting in Iraq is average (moderate).
- There is a statistically significant relationship between CEO characteristics and environmental costs in Iraqi private enterprises, confirming the importance of CEO characteristics in improving environmental costs.
- There is a statistically significant relationship between decisions made by users of accounting information.
- There is a statistically significant relationship between CEO characteristics and management commitment to environmental standards.
- There is a statistically significant relationship between CEO characteristics and the method of tabulating environmental costs.

##### **4.2. Recommendations:**

The results of this investigation have led to the following recommendations:

- The skills of managers of Iraqi private companies need to be strengthened through dedicated training programs that focus on the importance of environmental costing and its role in promoting sustainable development.
- Managers should be encouraged to adopt management approaches that promote compliance with environmental standards by participating in seminars and conferences on environmental management and sustainable accounting.
- More accurate and effective environmental costing systems need to be adopted, and policies and procedures that can accurately measure and classify environmental costs need to be developed.
- Managers should be supported in integrating environmental factors into strategic planning and making sustainable investment decisions.
- A unified model for classifying environmental costs appropriate to the nature of private companies' economic activities should be developed to facilitate the measurement, comparison, and analysis process.

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