

# The Impact of Environment Accounting Information Disclosure on Enterprise Value

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## Abstract

The objectives of this research were: 1) research results on the relationship between expanding and enriching corporate environmental accounting information disclosure and corporate value 2) By using theoretical analysis, mathematical modeling and other methods, combined with qualitative and quantitative research conclusions, we strive to guide practice through theoretical research. The sample studied were 410 Chinese A-share Listed Companies from 2010 to 2020. They were selected by the database of Tai' an. the research instrument for the data collection were StataSE 15.0. The statistics for data analysis were mean, analysis of variance, and Multiple regression analysis method.

The research results were found as follows; 1) There is a significant U-shaped relationship between enterprise value and environmental accounting information disclosure. 2) The inflection point of the U-shaped relationship is 0.368.

The suggestion were 1) strengthen the formulation of laws, regulations, and standards, establish corresponding review mechanisms, and promote transparent disclosure of environmental information by enterprises. 2) support enterprises to carry out technological innovation and improvement in clean production, resource utilization, energy conservation and emission reduction, and improve their environmental protection level.

**Keywords:** Environmental Accounting Information Disclosure; Enterprise Value; Asymmetric Information Theory

## Introduction

With the continuous development of technology, humans have discovered that while pursuing economic development, they are facing increasing environmental problems, such as waste disposal, biodiversity, and land degradation, which have become major obstacles to economic and social development (Imek and Gkhan 2021: 46). As a component of the ecosystem, enterprises need to consume natural resources and discharge waste during production and operation. Without good environmental control measures, it will have a significant impact on the ecosystem. The disclosure of environmental information is not only a bridge between enterprises and external society, but also relates to its own value and development, attracting attention from government departments, stakeholders, and the general public.

There are many literature on environmental information disclosure and corporate value, but research on the impact of environmental information disclosure on corporate value is not yet mature. Scholars generally conduct research on a certain field or industry to determine the interaction between the two, but most of their research results are slightly biased or completely

contradictory, and there is still no unified understanding. Therefore, this research still needs to be further deepened.

This article mainly measures the environmental accounting information disclosure of listed companies through the index of environmental accounting information disclosure, and studies the relationship between environmental accounting information disclosure and enterprise value. Using the data of A-share listed companies in China's Shanghai and Shenzhen stock markets from 2010 to 2020 as samples, this study investigates how companies can improve their corporate value through environmental accounting information disclosure, promoting A-share listed companies in China to actively and proactively disclose environmental accounting information. This has certain guiding significance for government regulatory departments to formulate policies and capital investment.

## **Research Objective**

Against the backdrop of the energy revolution driven by the national strategic carbon reduction goals of "peaking carbon emissions and achieving carbon neutrality", A-share listed companies, as an important component of China's national economy, are the focus of the country's green, low-carbon, and high development reform. They are also major consumers and polluters of the natural environment, fundamentally addressing the concerns of enterprise managers and improving the autonomy and enthusiasm of enterprise environmental accounting information disclosure. To enable the enterprise management team to fully understand the positive role of environmental accounting information disclosure and market regulation on enterprise value, aiming to enhance the sense of social responsibility of enterprises, promote their transformation and sustainable development, and enhance their development potential and enterprise value. Specifically, it includes the following three aspects:

1. Expand and enrich the research results on the relationship between corporate environmental accounting information disclosure and corporate value. Against the backdrop of promoting environmental resource protection and sustainable economic development in today's country, the disclosure of environmental information has become the main way to measure corporate social responsibility, attracting increasing attention from scholars and business managers. However, due to the influence of macroeconomic factors such as economy and society, there is controversy among different researchers regarding the analysis results of the relationship between environmental accounting information disclosure and corporate value. This article mainly explores the relationship between environmental accounting information disclosure and corporate value through both theoretical and empirical perspectives, enriching current theoretical research results, providing theoretical support for listed companies to better disclose environmental information, and promoting enterprises to provide high-quality environmental reports.

3. Using theoretical analysis, mathematical modeling and other methods, combined with qualitative and quantitative research conclusions, strive to guide practice through theoretical research. How to solve environmental protection problems and raise people's awareness of environmental protection has become a focus of social attention. Therefore, this article collects, processes, and analyzes data related to corporate environmental accounting information disclosure and corporate value, explores its internal impact relationship, and helps enterprise managers, government departments, and investors solve environmental accounting

information disclosure related problems, providing a basis for subsequent research on environmental accounting information disclosure and corporate value issues.

## **Literature Review**

Sharfman and Fernando (2008) studied the relationship between environmental performance and economic performance and found a certain linear relationship between environmental performance and economic performance. In short, companies with low environmental risks are more likely to obtain low-cost loans, attract more investors, reduce debt costs, promote long-term economic development, and promote enterprise value growth. Plumlee and Marlene (2009) studied the relationship between environmental information disclosure and the value of companies in various industries, and found significant differences in environmental information disclosure among different industries. Heavy polluting companies disclose more environmental information than ordinary companies, and he also emphasized the negative correlation between environmental information and capital costs. Tian Cuixiang and Yu Wen (2010) studied the correlation between environmental performance and stock prices. She used 109 heavily polluting listed companies as samples to construct an empirical model of environmental performance and stock prices, and verified the correlation between the two. Empirical research shows that the environmental performance of listed companies in China does not have a value-added effect, but also has a negative impact on stock prices. Zhang Shuhui and Shi Xuanxuan (2012) used environmental information released by 647 listed companies on the Shanghai Stock Exchange and Shenzhen Stock Exchange as an example to study the linear relationship between environmental information disclosure and corporate value. They constructed a theoretical model and studied the impact of environmental information on corporate value through a combination of direct and indirect methods. Research has found that the disclosure of environmental accounting information has a positive impact on the enhancement of corporate value. Dhar et al. (2021) analyzed empirical data from heavily polluting enterprises in Bangladesh from 2010 to 2019 and found that the quality of social responsibility information disclosure of heavily polluting enterprises is positively correlated with their sustainable development capabilities. Khosroshahi et al. (2021) studied the impact of the quantity and quality of corporate environmental disclosure on enterprises, and evaluated the impact of government intervention through subsidies on enterprises. They found that providing positive and negative disclosure subsidies is more beneficial for both parties than not intervening by the government. Imek and Gkhan (2021) analyzed the enterprise data of Türkiye's industrial zone, evaluated the relationship between the environmental accounting of enterprises and the overall performance of enterprises, and found that there was an obvious positive correlation between environmental accounting and performance.

## Research Methodology

The main content of this article is to study the impact of environmental accounting information disclosure on corporate value. Through a combination of theoretical and empirical methods, on the basis of enriching theoretical research, and combining relevant data from listed companies in Shanghai and Shenzhen for empirical analysis, the research conclusion of this article is drawn. Specifically, the main research methods involved include the following three:

### 1. Literature analysis method

Literature analysis method is an analytical method that collects and studies literature on a certain aspect, in order to discover the nature and characteristics of the research content, and thus discover new research perspectives. The literature analysis method can enable researchers to grasp the historical dynamics and research status of the research object, which is conducive to in-depth analysis of the characteristics of the research object, and can also study research objects that are no longer close. This study mainly uses literature analysis method to sort and analyze literature related to key words such as environmental accounting information disclosure and enterprise value at home and abroad. Then, it defines relevant concepts such as environmental accounting information disclosure, enterprise value, and market regulation, and summarizes its research conclusions, providing a foundation for in-depth research.

### 2. Statistical analysis method

The statistical analysis method mainly uses mathematical methods to create mathematical models, analyze and statistically analyze the sorted financial data, and finally form quantitative conclusions. Statistical analysis is a widely used modern scientific method, which is a relatively scientific, accurate, and objective evaluation method. In practice, there are many practical methods in application, such as evaluation indicators and chart evaluation methods. This study downloaded the annual financial reports, environmental reports, and other data of A-share listed companies in China from the Guotai An database. Then, statistical analysis was used for statistical analysis, feature extraction was performed on the data samples, and the disclosed content was assigned values by item to obtain the specific values of the environmental accounting information disclosure index from the calculation. The calculation of other variables is the same as the calculation method of environmental accounting disclosure index, providing objective and prepared data information for empirical analysis.

### 3. Multiple linear regression method

In statistics, linear regression is a type of regression analysis that uses a least squares function called a linear regression equation to model one or more dependent variables, independent variables, and relationships between dependent variables. This function is a linear combination of one or more model parameters called regression coefficients. A situation with only one independent variable is called simple regression, and a situation with multiple independent variables is called multiple regression.

This study uses enterprise value as the dependent variable, enterprise environmental accounting information disclosure index as the explanatory variable, and market regulation as the moderating variable to conduct multiple linear regression analysis and moderating effect analysis, providing technical support for the research hypothesis.

## Research Scope

When enterprises disclose environmental accounting information in the early stage, the quality of the disclosed environmental accounting information is usually low, which can have the following effects: (1) In order to facilitate work and improve efficiency when disclosing environmental information, enterprises may purchase management systems to achieve information management, which increases the investment in software costs; (2) If a company discovers serious environmental problems and needs to purchase equipment or introduce relevant technologies for governance, it will result in greater investment from the company; (3) Due to the relatively one-sided or immature environmental information disclosed in the early stage, it cannot provide information support and confidence in the development of the enterprise to corporate investors and banks, which can cause suspicion or panic among corporate investors or banking departments. In the short term, it may withdraw or no longer increase investment, thereby reducing the value of the enterprise (Ş Imsek and Ozturk (2021: 46). The environmental information disclosed by enterprises is incomplete and has a negative impact on the stock prices of listed companies (Kong Huige and Tang Wei, 2016: 182).

As the environmental information disclosed by enterprises continues to improve, they comprehensively disclose environmental issues related to daily production, such as emissions and treatment of pollutants, carbon dioxide emissions, investment and measures for environmental protection. The higher the quality of disclosure, the greater the fluctuation of stock prices (You Chunhui, 2014: 53), and the better the disclosure of environmental accounting information, The more earnings can be obtained (Marshall et al. 2009: 1, Xu Guanghua and Wan Sijia 2017: 35), listed companies that receive environmental rewards for their environmental accounting information disclosure behavior make their corporate profits perform well, resulting in higher stock prices. Environmental accounting information disclosure not only benefits short-term profits, but also enhances long-term value (Li and Liu et al, 2017: 9447).

Based on the theory of information asymmetry, the better the disclosure of environmental accounting information, the better it can enable investors to understand the current situation of enterprise operation, reduce the probability and losses of future unexpected situations, reduce information asymmetry, reduce the cost of enterprise refinancing, establish a good image of the enterprise, and at the same time, use more funds to engage in product research and development, production, and other aspects, Promoting the growth of enterprise value (Liachoviius et al., 2020: 7259). From the above analysis, it can be concluded that the impact of environmental accounting information disclosure on enterprise value is a trend of first having a negative impact and then positively promoting its growth. Therefore, this study proposes the following preliminary hypotheses:

H1: There is a U-shaped correlation between environmental accounting information disclosure and enterprise value, that is, as environmental accounting information disclosure increases, enterprise value shows a trend of first decreasing and then increasing.

## Research Results

### 1. Sample selection and data sources

This study selected A-share listed companies in China that disclose a lot of environmental information as the research object, and used the environmental accounting information disclosure information of enterprises from 2010 to 2020 as a sample to study their impact on corporate value. The following screening was performed during sample selection:

(1) Excluding ST, \* ST, and SST companies, as these companies have certain losses and there is a high possibility of abnormal financial data, which will affect the accuracy of the research;

(2) Excluding companies that lack complete data may disrupt data continuity and affect the accuracy of research.

The data part mainly comes from Guotai An data. After sorting and removing incomplete data from enterprises, a total of 410 enterprises and 4510 sample data were obtained.

### 2. Variable measurement

#### 2.1 Dependent variable

Enterprise Value (FV), based on research conducted by domestic and foreign scholars on enterprise value, it has been found that most measures of enterprise value are based on Tobin's Q value. The high or low Tobin's Q value indicates whether investors are optimistic about the enterprise and willing to invest in it. Demsetz was the first to use Tobin Q value to measure enterprise value, and many scholars in China have widely used this measurement method to measure enterprise value. Referring to the research results of Li Jiangyan et al. (2016), the logarithm of Tobin Q value is used as the variable to measure enterprise value. The Tobin Q calculation formula defined by economist James Tobin is shown in formula (1).

$$\text{Tobin Q} = \frac{\text{market value}}{\text{asset reset capital}} \quad (1)$$

From a definition perspective, Tobin's Q value reflects the ability of a company to create value based on its own resources, and is expressed as the company's efficiency measured by value. This study does not recalculate the Tobin Q value, but directly downloads it from the Guotai An database to measure the enterprise value using the natural logarithm of the Tobin Q value.

#### 2.2 Explanatory variables

Studying the impact of environmental accounting information disclosure on corporate value, using the environmental accounting information disclosure index as an explanatory variable, however, the databases searched for do not have data that can represent the environmental accounting information disclosure index, and scholars do not have a unified standard for the construction of the environmental accounting information disclosure index. In order to improve data acquisition efficiency and measurement methods, the "Environmental Information Disclosure Measures (Trial)" are used as the theoretical basis, Based on the actual situation of environmental accounting information disclosure in the selected sample, this study adopts the most common content analysis method in social responsibility disclosure research to make a comprehensive evaluation of environmental accounting information disclosure. Specifically, the items and assignment criteria shown in Table 1 were selected as the objects for measuring environmental accounting information disclosure, and an environmental accounting information disclosure index was constructed. The specific calculation is shown in formula (2).

$$EDI_{i,t} = \frac{\sum_{j=1}^{20} edi_{i,j,t}}{42} \quad (2)$$

In formula (2), i represents the enterprise, t represents the year, and j represents the environmental accounting information disclosure indicator,  $\sum_{j=1}^{20} edi_{i,j,t}$  The total score of environmental accounting information disclosure for company i in the t-th year is 42, which is the best score for all statistical indicators. The Environmental Accounting Information Disclosure Index (EDI) is the ratio of the actual score of the company to the best score. The actual score of environmental accounting information in the above formula is obtained by summarizing the specific scores of five items: environmental liability disclosure, environmental performance and governance disclosure, environmental management disclosure, environmental supervision and certification disclosure, and environmental accounting information disclosure methods. The data of the five environmental accounting information disclosure items is obtained from the Guotai An database.

### 2.3 Construction of Empirical Models

(1) Choose a multiple regression model to test the impact of environmental accounting information disclosure on corporate value, and construct model (1).

$$FV_{i,t} = \beta_0 + \beta_1 EDI_{i,t} + \beta_2 EDI_{i,t}^2 + \sum \beta_j Control_{i,t} + ID_{i,t} + YEAR_{i,t} + \varepsilon_{i,t} \quad (1)$$

Among them, represents the enterprise value of enterprise i in year t, represents the environmental accounting information disclosure of enterprise i in year t, represents all control variables, and Control includes other variables that may affect the enterprise value, including company size (SIZ), financial risk (LEV), number of employees (PNUM), company growth (GR), equity concentration (LHR), number of directors (DM) and Equity nature (STA). In addition, we also controlled for individual and time effects of the company, representing a random disturbance term, the same below.

## Discussion

### 1. Descriptive statistical analysis

The descriptive statistics of variables are shown in Table 1.

**Table 1** Descriptive Statistics of Variables

Variable Description	Variable Name	Sample quantity	Mean	median	standard deviation	Min	Max
Dependent variable	FV	4510	1.625	1.120	1.724	0.030	28.930
Explanatory variables	EDI	4510	0.217	0.190	0.175	0.020	0.850
	SIZ	4510	2543.820	79.655	1.7e+04	0.770	2.8e+05

	LEV	4510	-0.844	-0.700	0.574	-4.890	-0.020
control	PNUM	4510	1.6e+04	4178.000	4.8e+04	23.000	5.0e+05
variable	GR	4510	0.798	0.060	15.230	-0.990	706.200
	LHR	4510	3.477	3.520	0.458	1.600	4.440
	DM	4510	9.210	9.000	2.128	5.000	21.000
	STA	4510	0.566	1.000	0.496	0.000	1.000

The dependent variable (FV) is the value of listed companies in China. It can be seen that the minimum value is 0.030, while the maximum value is 28.930, indicating a significant difference in value among listed companies in China. The average value is 1.625, which is greater than the median value of 1.120, indicating a higher proportion of companies with higher value among listed companies in China.

The explanatory variable (EDI) is the disclosure of corporate environmental accounting information, with a minimum value of 0.020 and a maximum value of 0.850. It can be concluded that there is a significant gap in environmental accounting information disclosure among listed companies in China, and most listed companies do not attach importance to disclosing environmental information. The average disclosure of environmental accounting information is 0.217, indicating that under the current economic development strategy in China, listed companies generally disclose less environmental information. There is a significant gap between the environmental governance level and construction investment of different enterprises.

In the controlled variables (SIZ, LEV, PNUM, GR, LHR, DM, STA), the minimum value of company growth potential (GR) is -0.990 and the maximum value is 706.220, indicating a significant difference in company growth potential between listed companies in China.

## 2. Correlation analysis

This article uses Pearson correlation analysis to analyze variables. Pearson correlation analysis, also known as product difference correlation coefficient, ranges from -1 to 1. The larger the absolute value, the stronger the correlation. Based on the calculation and testing results of this coefficient, the relationship between environmental accounting information disclosure and enterprise value can be preliminarily determined. The correlation analysis of variables is shown in Table 2. Among them, there is a significant correlation between FV and EDI at the 1% level, which preliminarily indicates a significant relationship between environmental accounting information disclosure and enterprise value. By analyzing the variance inflation factor (VIF) values of each variable in Table 2, which are far less than 10, it can be concluded that there is no multicollinearity problem.

**Table 2** Correlation Analysis of Variables

变量	1	2	3	4	5	6	7	8	9
1. FV	1								
2. EDI	-0.202***	1							
3. SIZ	-0.126***	0.035**	1						
4. LEV	-0.523***	0.181***	0.182***	1					
5. PNUM	-0.181***	0.182***	0.700***	0.243***	1				
6. GR	0.017	-0.006	-0.005	0.007	-0.004	1			
7. LHR	-0.032**	0.092***	0.081***	0.053***	0.165***	0.008	1		
8. DM	-0.207***	0.109***	0.291***	0.254***	0.228***	0.006	-0.078***	1	
9. STA	-0.254***	0.162***	0.001	0.271***	0.096***	-0.001	0.245***	0.174***	1
VIF	-	1.150	2.110	1.240	2.190	1.000	1.140	1.200	1.220

Note: \* \* \* is significant at the 1% level, \* \* is significant at the 5% level, and \* is significant at the 10% level.

### 3. Testing the Relationship between Environmental Accounting Information Disclosure and Enterprise Value

After conducting a Hausman test on the panel data, the probability of rejecting the null hypothesis and making false positives is 0, which is significant at the 1% level. Based on the above results, we choose to reject the null hypothesis and choose a fixed effects model.

This study first used a fixed effects regression model to conduct regression analysis on the relationship between EDI and FV. The fixed effects regression model was used to estimate Model (1), and the specific regression results are shown in Table 3.

**Table 3** Regression Analysis of Main Effects

Variable	FV
EDI	-0.772* (-1.95)
EDI <sup>2</sup>	1.047* (1.76)
SIZ	6.20e-07 (0.19)
LEV	-0.322*** (-5.76)
PNUM	1.28e-06 (0.72)
GR	0.001 (1.07)
LHR	0.084 (0.92)
DM	-0.010 (-0.59)
STA	-0.602*** (-4.58)
Time/Individuality	Control
Constant Term	2.398*** (6.28)
Observations	4510
Adjust R <sup>2</sup>	0.191

Note: \*\*\* is significant at the 1% level, \*\* is significant at the 5% level, \* is significant at the 10% level, and the values in parentheses are t-values.

According to the U-shaped relationship test, the statistical results are shown in Table 4.

**Table 4** U-shaped relationship test results

Variable	Lower bound	Upper bound
Interval	0.020	0.850
Slope	-.730	1.009
t-value	-1.946	1.500
P> t	0.026	0.067
Extreme point	0.368	

From the regression statistical results, it can be seen that in the test results of Model (1), the first-order regression coefficient of enterprise value and environmental accounting information disclosure is -0.772, significantly negatively correlated at the 10% level, and the second-order regression coefficient of enterprise value and environmental accounting information disclosure is 1.047, significantly positively correlated at the 10% level. According to the U-shaped test results, the P-value of the "U-shaped" test for enterprise value and environmental accounting information disclosure is 1.50, which is significant at the 10% level, further proving the conclusion that there is a "U-shaped" relationship between enterprise value and environmental accounting information disclosure. In the U-shaped relationship test results, when EDI is 0.368, FV is the smallest. When the value of EDI is less than 0.368, EDI inhibits the growth of enterprise value. When the value of EDI is greater than 0.368, EDI promotes the growth of enterprise value.

## Recommendations

Given the relationship between environmental accounting information disclosure and corporate value, it is recommended that government regulatory agencies and corporate managers take the following specific measures:

1. Strengthen the formulation of laws, regulations, and standards, establish corresponding review mechanisms, and promote transparent disclosure of environmental information by enterprises.

(1) Accelerate the improvement of the institutional system. Accelerate the formulation and release of management measures and supporting documents, disclose environmental information in accordance with the law, further improve the content of corporate responsibility disclosure, unify behavior disclosure, establish information disclosure requirements, set information restrictions, and effectively guide enterprises to disclose environmental information in accordance with the law.

(2) Strengthen implementation capacity building. Develop environmental information verification technology based on big data filtering and cloud computing to enhance the supervision ability of the environment and related departments. Timely summarize and promote local experiences, strengthen publicity and training, and enhance the ability of enterprises to disclose environmental information in accordance with laws and regulations.

(3) Conduct continuous tracking and evaluation. Strengthen the reform of the environmental information disclosure system in accordance with the law, improve reform measures, and deepen institutional reform.

2. Support enterprises to carry out technological innovation and improvement in clean production, resource utilization, energy conservation and emission reduction, and improve their environmental protection level.

(1) Scientific planning promotes energy conservation and emission reduction

According to the requirements of the Scientific Outlook on Development, Scientific Planning, and Energy Conservation and Emission Reduction, taking the chemical industry as an example, through scientific planning of the chemical industry, we can achieve rational planning, energy conservation and emission reduction, scientific planning, and open thinking development.

(2) Scientific management and implementation of energy conservation and emission reduction

Scientific and standardized management is an important link in doing a good job in energy conservation and emission reduction. Management personnel improve their level of scientific and standardized management through learning. Implement energy conservation and emission reduction through scientific management and strict operating procedures.

(3) Technological innovation strengthens energy conservation and emission reduction

Improving technological level and promoting technological progress through technological innovation is an important support and guarantee for achieving energy conservation and emission reduction. The country has gradually arranged special funds for energy conservation and emission reduction, supporting and encouraging pilot projects and technological innovation in energy conservation and emission reduction for chemical enterprises, and providing financial support for enterprise energy conservation and emission reduction. Promoting industrial upgrading through technological progress and achieving energy conservation and emission reduction.

## References

- Kong Huige, Tang Wei. (2016). *Factors influencing the quality of environmental accounting information disclosure from the perspective of stakeholders*. *Management Review*, 9182-193.
- You Chunhui. (2014). Environmental Accounting Information Disclosure, Marketization Process, and Enterprise Value: Empirical Evidence from Listed Companies in China's *Chemical Products Industry Chinese Certified Public Accountant*. 8, 53-57.
- Xu Guanghua, Wan Sijia. (2017). Environmental accounting information disclosure, *media attention, and research on corporate value Friends of Accountants*. 10, 35-42
- Yang Jie, Shi Yiting (2023). Carbon Information Disclosure, Executive Dual Incentives, and Corporate Value. *Journal of Natural Science, Hunan Normal University*. 46 (01), 29-37+99.
- Dhar B K, Sarkar S M, Ayittey F K. (2022). Impact of social responsibility disclosure between implementation of green accounting and sustainable development: A study on heavily polluting companies in Bangladesh. *Corporate Social Responsibility and Environmental Management*. 29 (1),71-78. <https://doi.org/10.1002/csr.2174>.

- Imek H ,Gkhan ztürk. (2021). Evaluation of the relationship between environmental accounting and business performance: the case of Istanbul province[J]. *Green Finance*. 3 (1), 46-58.<https://doi.org/10.3934/GF.2021004>.
- Khosroshahi H , Azad N , Jabbarzadeh A ,et al. (2021). Investigating the level and quality of the information in the environmental disclosure report of a corporation considering government intervention. *International Journal of Production Economics*. 108071. <https://doi.org/10.1016/j.ijpe.2021.108071>
- Liachoviius E , Skrickij V , Podvieszko A. (2020). MCDM Evaluation of Asset-Based Road Freight Transport Companies Using Key Drivers That Influence the Enterprise Value[J]. *Sustainability*. 12 (18), 7259. <https://doi.org/10.3390/su12187259>.
- Li Li, Liu Quanqi, Tang Dengli. (2017). Media reporting, carbon information disclosure, and the cost of equity financing: evidence from China[J]. *Environmental science and pollution research*. (24), 9447-9459. <https://doi.org/10.1007/s11356-017-8614-4>.
- Marshall, S., Brown, D., & Plumlee, M. (2009). The Impact of Voluntary Environmental Disclosure Quality on Firm Value. *In Academy of Management Proceedings*. (1), 1-6. Briarcliff Manor, NY 10510: Academy of Management.<https://doi.org/10.5465/AMBPP.2009.44264648>.
- Plumlee M, Brown D, Hayes R M, et al. (2015). Voluntary environmental disclosure quality and firm value: Further evidence[J]. *Journal of accounting and public policy*. 34 (4), 336-361.<https://doi.org/10.1016/j.jaccpubpol.2015.04.004>
- Sharfman M P , Fernando C S. (2008). Environmental risk management and the cost of capital.*Strategic Management Journal*. 29 (6), 569-592. <https://doi.org/10.1002/smj.678>.
- Şimsek H, Ozturk G. (2021). Evaluation of the relationship between environmental accounting and business performance: the case of Istanbul province[J]. *Green Financ*. 3, 46-58. <https://doi.org/10.3934/GF.2021004>.
- Tian Cuixiang, Yu Wen. (2008). *On the Theoretical Basis and Development Direction of Enterprise Environmental Accounting Information Disclosure* [C] The 2008 Academic Annual Conference of the Higher Engineering College Branch of the Chinese Accounting Society, Central China Group Enterprise Financial Management Seminar, 400-402.
- Zhang Shuhui, Shi Xuanxuan. (2011). Learning ability, company characteristics, and environmental accounting information disclosure. *China Securities and Futures*. 9, 24-25.