

The Impact of ESG Pillars on Corporate Performance—Empirical Evidence from “Top 100 ESG Listed Companies” in China

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Abstract: With the continuous development of China's economy and society and the gradual diversification of investors' investment methods, ESG information disclosure gradually occupies an important position in the development of companies and can measure whether listed companies have a sense of social responsibility, and is also an important indicator for investors and the capital market to measure the future development and overall value of enterprises. However, whether ESG data and corporate performance after rating with certain criteria can be both is still an important issue for listed companies. This study uses qualitative comparative analysis to investigate the combination of conditions that lead to high return on assets. Return on Assets is used as the outcome variable, and Environmental Indicators, Social Indicators, Corporate Governance Indicators and Comprehensive Indicators are used as the antecedent variables. The thesis mainly explore the logical relationships among the variables and the combinations of conditions that affect the outcome variables. Fuzzy-sets qualitative comparative analysis is performed using fsQCA 3.0 software, and the analysis content includes variable calibration, construction of truth tables, analysis of necessary conditions for antecedent conditions, and analysis of sufficient conditions for group effects.

1. Introduction

ESG (Environment, Social, Governance) evaluation is a corporate evaluation standard that focuses on the environmental, social, and corporate governance of a company. Domestic and international research and techniques have shown that ESG performance is related to the level of corporate operations and long-term development, and also has implications for investors in traditional financial analysis[1]. As equity market matures in China, there is a greater need to strengthen the management of multidimensional risks between the market and the company. In April 2006, with the support of the financial initiative of the United Nations Environment Programme (UNEP), the Secretary-General of the United Nations proposed the "Principles for Responsible Investment" (UN PRI) on the New York Stock Exchange, which advocates the integration of environment, social responsibility and governance into the investment decision-making process and listing 6 categories and 35 feasible options for institutional investors

to use as investment references. In 2015, world leaders put forward a set of principles to be used in the United Nations' Sustainable Development Goals (SDGs). The Sustainable Development Goals were adopted as the global development program for the next 15 years. The program also proposes effective cooperation between the international community and the United Nations in developing societies, economic development and environmental protection, global sustainability and challenges, and protecting the future of all humanity [2].

In recent years, listed companies have been increasing their awareness of the importance of ESG work, carrying out actions in multiple dimensions in the field of environmental, social and corporate governance, and achieving certain results. This shows that ESG concept has been paid more and more attention by listed companies, and is also an important indicator that enterprises are closely connected with economic and social development. At the same time, ESG information disclosure is the basis for implementing ESG concept and promoting ESG rating and investment of enterprises. Therefore, this thesis aims to analyze the intrinsic and complex relationship between ESG information disclosure and corporate development, and explore the possibility of both ESG information disclosure and corporate development in the context of advocating sustainable economic development in the era [3].

Scholars at home and abroad have conducted a lot of research on the relationship between ESG disclosure and corporate performance from different perspectives, and have achieved certain research results. Based on the previous empirical study, this chapter, in order to further clarify the set relationship between environmental indicators, social indicators, corporate governance indicators, comprehensive indicators and return on assets, conducts a conformation analysis of the antecedent conditions affecting high corporate return on assets by means of qualitative comparative analysis.

2. Fuzzy-Sets Qualitative Comparative analysis

Traditional regression analysis assumes that the independent variables act independently and emphasizes the marginal "net effect" of the independent variables on the dependent variable while controlling for other factors, and is unable to analyze the complex causal relationships formed by the interdependence of multiple antecedents. There may be multiple equivalent paths for the impact of ESG disclosure on firm performance, and while quantitative methods can easily confirm causal relationships between variables, it is difficult to exclude the existence of other explanatory antecedents, resulting in an overly "constrained" logic [4].

The fsQCA approach takes a configuration perspective, considering that conditional variables are interdependent and act together without considering co-linearity [5]. It treats the study object as a grouping of multiple antecedent variables in different combinations, and discovers the interdependence, group equivalence, and causal asymmetry among conditional variables based on set theory analysis, thus revealing the complexity arising from the interdependence of multiple independent variables causal relationships. Therefore, a constructive analysis of the antecedents triggering a high return on equity will be conducted through a qualitative comparative analysis approach based on empirical studies [6].

2.1 Variable Selection, Calibration and Truth Tables

2.1.1 Selection of Variables

In this study, environmental indicators, social indicators, corporate governance indicators and composite indicators are selected as the antecedent conditions and return on equity as the outcome variable based on the following considerations: the effects of environmental indicators, social

indicators, corporate governance indicators and composite indicators on return on equity are supported by theoretical and empirical findings.

2.1.2 Variable Calibration

The variables need to be calibrated before conformation, i.e., to create a data set of fuzzy-sets affiliation scores to avoid mechanical reliance on sample descriptive statistics calibration. To transform the concept of variables into the concept of sets, three calibration points need to be set, namely "fully unaffiliated", "fully affiliated" and "crossover point". In this thesis, we follow the calibration method of 5% (Full Out), 95% (Full in) and 50% (Crossover point) proposed by Ragin and Fiss, and code the "95% quantile" as "fully affiliated", "Median" is coded as "crossover point" and "5% quantile" is coded as "fully unaffiliated". The data were calibrated separately. The calibration anchor values and the specific anchor values for each variable are shown in table 1.

Table 1: Specific values of calibration tracing points for each variable

Variable Type	scalar quantity	Target set	Tracing points		
			Fully affiliated	Crossover point	Fully unaffiliated
Antecedents	ESG Composite Metrics	High ESG composite metrics	84.526	78.709	72.189
Antecedents	Environmental Indicators	High environmental indicators	81.883	70.889	57.279
Antecedents	Social Indicators	High social indicators	90.605	80.947	74.397
Antecedents	Corporate Governance Indicators	High corporate governance metrics	87.387	82.080	75.559
Results	Return on Net Assets	High return on net assets	29.915	12.611	2.084

Table 2: Calibrated pooled affiliation scores for some case variables

Sample	ESG Composite Indicators (Z)	Environmental indicators (E)	Social Indicator(s)	Corporate Governance Indicators (G)	Return on net assets (ROE)
1	0.49	0.82	0.02	0.82	0.22
2	0.93	0.65	0.88	0.86	0.47
3	0.82	0.94	0.13	0.83	0.19
4	0.79	0.8	0.58	0.6	0.28
5	0.84	0.85	0.98	0.23	0.92
6	0.47	0.28	0.65	0.92	0.84
7	0.13	0.22	0.44	0.46	0.6
8	0.24	0.75	0.57	0.01	0.91
9	0.57	0.88	0.07	0.6	0.35
10	0.97	0.97	0.77	0.96	0.84
11	0.42	0.52	0.08	0.82	0.17
12	0.49	0.82	0.02	0.82	0.22
.....
121	0.63	0.76	0.84	0.17	0.63

After determining the calibration anchors for each variable, "ESG composite indicator (Z)",

"environmental indicator (E)", "social indicator (S)", "corporate governance indicator (G)", and "return on equity (ROE)" are calibrated so that each variable is transformed into an affiliation score between 0 and 1, The "corporate governance indicators (G)" and "return on equity (ROE)" are calibrated so that each variable is transformed into an affiliation score that falls between 0 and 1. Since the sample size of this study is 121, it is not possible to present all the new variables in the calibrated sample, so only some of the calibrated data are presented here. Some of the calibrated data are shown in table 2.

2.1.3 Construction of Truth Tables

According to Ragin and Fiss, the consistency thresholds are set at "0.75", "0.80" and "0.85" for access, respectively. "Minimum requirement", "better" and "0.85", respectively. In this thesis, the consistency threshold is set to 0.80 and the case frequency threshold is set to 1, as suggested by Ragin and Fiss. When the case consistency threshold is higher than 0.8, the outcome variable "return on equity (ROE)" is coded as "1" (FP=1). When the case consistency threshold is below 0.8, the outcome variable "return on equity (ROE)" is coded as "0" (FP=0). This thesis examines the antecedent conditions that trigger a high ROE, i.e., the "ROE=1" factor combination, and the truth table for the combination of factors that produce a high ROE is shown in table 3.

Table 3: Truth table of factor combinations for "ROE = 1"

ESG Composite Index	Environmental Indicators	Social Indicators	Corporate Governance Indicators	Number of cases	Return on Equity	Consistency
Z	E	S	G	number	ROE	raw consist
1	1	1	1	10	1	0.955
1	1	0	1	2	1	0.935
1	1	1	0	6	1	0.930
0	1	1	1	1	1	0.925
0	1	1	1	7	1	0.920
1	1	0	1	2	1	0.915
0	1	1	0	1	1	0.900
1	0	1	1	3	1	0.898
1	1	0	0	1	1	0.881
0	0	1	0	1	1	0.852
0	1	0	1	3	1	0.847
0	1	0	0	1	1	0.839
1	0	1	0	2	1	0.836
1	1	0	0	2	1	0.832
1	0	1	0	3	1	0.819
0	0	0	1	1	1	0.815

2.2 Necessary Conditions Analysis

In fsQCA analysis requirements, necessary conditions must exist when the instances of the results form a subset of the conditional instances, i.e., the set of results is a subset of the set of antecedents. In the fuzzy set qualitative comparison analysis, the results are interpreted according to consistency and coverage metrics. Among them, consistency is used to measure whether the antecedent condition is necessary for the outcome variable, and coverage is used to measure the degree of coverage of a single antecedent condition for the whole case sample; the higher the coverage, the stronger the explanation of the antecedent condition for the outcome variable. An

antecedent condition is considered necessary for the outcome variable when the consistency of the results of the analysis of the antecedent necessity condition is greater than 0.90.

This study analyzes the necessity of each of the five antecedent variables (ESG composite, environmental, social, and corporate governance indicators) of corporate return on net worth (ROE), and the results of the analysis are shown in table 4.

According to table 4, the consistency of ESG composite indicator (Z), environmental indicator (E), social indicator (S), and corporate governance indicator (G) on high return on equity (ROE) are 0.690304, 0.684956, 0.673730, and 0.675856, respectively, and the consistency of each antecedent variable on high return on equity (ROE) does not reach the absolute necessary condition of 0.90, i.e., no antecedent condition can be necessary for high ROE; and the coverage of ESG composite indicator (Z), environmental indicator (E), social indicator (S), and corporate governance indicator (G) on high ROE is 0.695699, 0.681121, 0.693979, and the coverage of each antecedent variable is below 0.80, indicating that no single variable can influence ROE alone, i.e., ROE is influenced by overlapping multiple factors and variables rather than a single antecedent condition, and each antecedent condition is not a sufficient condition for the result.

Table 4: Results of analysis of necessary conditions for conditional variables

Result variable: ROE					
Conditional Variables	Consistency	Coverage	Conditional Variables	Consistency	Coverage
High ESG Composite Score	0.690	0.696	Low ESG composite score	0.631	0.631
High environmental score	0.685	0.681	Low environmental score	0.629	0.637
High social score	0.674	0.694	Low social division	0.646	0.632
High Corporate Governance Score	0.676	0.671	Low Corporate Governance Score	0.630	0.638

2.3 Configuration Sufficiency Analysis

When using fsQCA 3.0 software to perform Boolean minimisation operations, the results of the operations will directly yield three sets of solutions: complex, intermediate and simple solutions. The complex solution is the minimum formula derived without taking into account any logical residual terms and is the most complex and rigorous in its configuration, but less general. The simple solution is the minimum formula derived by accepting all logical residual terms, and its grouping has low explanatory power, making it difficult to ensure the rationality of the introduced logic. The intermediate solution is a minimum formula derived by introducing logical residuals consistent with theory and knowledge, which combines the simplicity of the simple solution with the reliability of the complex solution, with wide grouping coverage and high explanatory power. The intermediate solution is the optimal solution used by most researchers.

Unlike the purpose of the necessity test for the antecedent condition, the histogram analysis aims to reveal the sufficiency of different histograms consisting of multiple condition variables in an event to trigger the occurrence of the outcome variables, i.e., to examine whether the histograms consisting of different conditions are a subset of the set of outcome variables. The adequacy of the histories is also tested using consistency, but the acceptable threshold level and calculation method differ from that of the necessity condition analysis. fsQCA 3.0 software defaults to a consistency threshold of 0.80 for the adequacy condition, and the consistency level is usually determined to be

no less than 0.70. fsQCA 3.0 is used to analyze the data of the selected cases by choosing a frequency level of 1, and the consistency is greater than 0.75. The results of the parsimonious and intermediate solutions for high ROE are compiled from the results of the software analysis in table 5 and 6, respectively.

Table 5: The minimalist solution results for high return on equity (ROE)

Minimalist Solution	Original Coverage	Unique Coverage	Consistency
Z * ~G	0.451	0.035	0.869
~E * G	0.461	0.015	0.795
E * S	0.545	0.023	0.789
Coverage of the Solution	0.737		
Consistency of the Solution	0.763		

Table 6: Intermediate solution results for high return on equity (ROE)

Intermediate solutions	Raw Coverage	Unique Coverage	Consistency
~E * G	0.461	0.090	0.796
Z * S	0.569	0.099	0.757
Z * E * ~G	0.410	0.026	0.875
E * S * ~G	0.395	0.022	0.857
Coverage of the solution	0.743		
Consistency of solution	0.765		

As shown in Table 5 and 6, the consistency of the intermediate solution for each configuration is 0.795568, 0.757241, 0.875031, and 0.857122, respectively, which are all higher than the acceptable standard value (0.75), and the overall consistency is 0.765415, indicating that the reliability of the four configurations is good, i.e., all the configurations listed in the table are sufficient conditions leading to the generation of high return on equity (ROE) is sufficient. The raw coverage of each configuration is 0.461498, 0.568776, 0.410349 and 0.395403, respectively, which are all higher than 30%, indicating that each configuration explains approximately more than 30% of the total sample; meanwhile, the total coverage reaches 74.31%, indicating that these four configurations account for a considerable proportion of the results.

2.4 Analysis of the fsQCA Results

Table 7: Analysis of high return on equity (ROE) configuration of Companies

Conditional Variables	H1	H2	H3	H4
Z		•	•	
E	⊗		•	•
S		•		•
G	•		⊗	⊗
Row Coverage	0.461	0.569	0.410	0.395
Unique Coverage	0.090	0.099	0.026	0.022
Consistency	0.796	0.757	0.875	0.857
Representative cases	Erie, China Construction, Moutai	ZTE Corporation, Great Wall Motor, Shanghai Pharmaceutical	Bank of Shanghai, Sinotrans	Pien Tzhuang, Longi Green Energy, Conch Cement, Goodwe
Total Coverage	0.743145			
Total Consistency	0.735415			

In this thesis, the antecedent constructs with the same core conditions are grouped into the following six high ROE triggering constructs, as shown in table 7. Where ● or ● indicates the presence of the condition, ⊗ or ⊗ indicates the absence of the condition, and "blank" indicates that the condition is both present and absent in the configuration. If the explanatory variable appears in both intermediate and simple solutions, it is the core condition (●or⊗ for core condition); if the explanatory variable appears only in intermediate solutions, it is the auxiliary condition (● or ⊗ for auxiliary condition).

The results in table 7 show that there are four combination patterns available with the goal of improving corporate performance. The consistency of all four paths is greater than 0.75, indicating that these groupings can more adequately illustrate the link between ESG and corporate performance. H1 denotes $\sim E \times G$, indicating that environment and governance is the core element, lack of a high environmental score and having a high social score can produce high corporate performance (high ROE), and the level of composite score and social score does not affect the results. H2 indicates $Z \times S$, and there is no core element that requires a high composite score and a high social score to obtain good corporate performance, and environment and governance do not affect the results here. H3 and H4 both require a high level of environment and low governance, supplemented by a high level of ESG composite data or social responsibility data to achieve high corporate performance configuration results. On the whole, the overall level of ESG and the social responsibility score are the two most important factors, which largely affect the performance of enterprises and require the key attention of listed companies. In addition, the corporate governance factor cannot be combined with the other three factors, i.e., to achieve high corporate performance, a trade-off between corporate governance, social responsibility and environmental protection needs to be made. In terms of original coverage, the ESG Top 100 listed companies are more on the H2 path, while H3 and H4 are not mainstream models. Specifically, combining the development performance of ESG listed top 100 companies, this paper names each of the four group configurations. Taking ESG composite indicators as the main logic, the following analysis is obtained:

(1) Corporate governance-driven under ESG natural development (H1).

Histogram H1 points out that listed companies with high corporate governance and non-high environmental factors as core conditions can contribute to the growth of corporate performance. This group of companies reflects that in the absence of sound environmental regulation and at the cost of corporate environmental indicators, focusing resources and efforts on improving corporate governance can be effective in enhancing the overall performance development of companies. Under this grouping, representative companies include Erie, China Construction, and Guizhou Moutai. These companies have top scores in corporate governance indicators, but lower scores in environmental indicators, and on balance they still score well in the ESG ratings. Take Erie AG as an example, Erie Group holds regular shareholder incentive meetings and has established a set of equity incentive mechanisms that are clear on the rules, tightly managed and investor-friendly. Faced with the incident of independent directors that had occurred, the company also made timely adjustments to restrain its power, and the overall governance system was effectively adjusted and updated. From the latest 2022 ESG disclosure, Yili's corporate governance level is high, at 86.39 in 2022, ranking 13th among the top 100 listed companies.

(2) Social responsibility-driven with coordinated ESG development (H2).

Histogram H2 shows that high ESG composite and high social responsibility indicators as marginal conditions can facilitate the growth of corporate performance. Under this grouping, representative companies include ZTE Corporation, Great Wall Motor, and Shanghai Pharmaceutical. For example, Great Wall Motor ranks second in ESG composite index score and first in social responsibility index score, but the scores of environmental index and corporate

governance index are not outstanding. As a Chinese automobile brand, Great Wall Motor has a relatively outstanding performance in human capital allocation and supplier reputation, and is actively engaged in the research and development of new energy vehicles, implementing a closed-loop ecology and open economy; on the basis of ensuring the safety of every user's travel, Great Wall Motor also opens up the technology patents of Dayu battery for free, promoting the common development of the industry and also contributing to the "sustainable development" of society. This fully demonstrates that social responsibility-driven enterprises under coordinated development can gain new momentum for continuous development under the existing market economy system.

(3) Environment-driven with ESG-focused inputs (H3).

Configuration H3 shows that high comprehensive indicators with non-high corporate governance indicators as the core condition and high environmental indicators as the marginal condition can achieve efficient development of corporate performance. The configuration of this grouping measures ESG composite indicators as the most important indicators, supplemented by factors related to environmental protection, at the expense of the pursuit of a sound corporate governance system, so as to achieve the synergistic development of ESG and corporate performance. Under the restructuring state, China Shipping is used as a representative company. Such enterprises focus on increasing the input of comprehensive ESG indicators, pay attention to the national institutional requirements related to corporate environmental protection, and then focus on the efficient development and low-cost operation of the enterprise.

(4) Win-win type of environmental and social responsibility under ESG natural development (H4).

Histogram H4 emphasizes high environmental factors and high social responsibility as the main core condition and low corporate governance level as a marginal condition. This histogram emphasizes the need to achieve the combination of environmental protection and social responsibility, indicating that enterprises improve efficiency and can generate high corporate performance by creating high environmental protection projects, actively fulfilling social responsibility and appropriately reducing the investment in building corporate governance system. Under this grouping, representative enterprises include Pien Tzehuang, Longi Green Energy, Conch Cement and Goodwe. These enterprises are mainly state-owned enterprises with obvious overall advantages in environmental protection, long development time and high social evaluation, and have obvious government policy inclination and better fertile ground for development.

2.5 Conditional Grouping under Property Nature Division

Due to the differences in social responsibility and industry regulatory standards of different enterprises, therefore, based on the conclusion of the fuzzy-sets qualitative comparative analysis, this paper delves into the importance of ESG information disclosure in enterprises of different nature, divided according to state-owned enterprises and private enterprises, in separate fuzzy set qualitative comparative analysis, and the results of the analysis are shown in table 8. According to table 8, there are three groups of SOEs and private enterprises that each lead to high corporate return on assets. Among the conditional groups of SOEs, H5 and H6 are more similar in that both require a high level of social responsibility and corporate governance and both are core conditions, while the difference lies in the lack of high quality data performance in at least one of the required categories of integrated level and environmental protection. Among the conditional grouping of private enterprises, H9 has the highest original coverage, which indicates that high level ESG composite index score and environmental index score are very important and ESG composite index is the core factor. Integrating private and state-owned enterprises, H7 and H10 have high similarity,

and both can be expressed as $E \times S \times \sim G \times (Z) \rightarrow ROE$. Both the H7 and H10 groupings have high environmental protection and high CSR as core conditions, with low corporate governance as a secondary condition. The difference between the two groupings lies in the presence or absence of high level of ESG composite indicators as a secondary condition. The results of the analysis of the grouping of state-owned and private enterprises show that high levels of environmental protection occupy an important position in both state-owned and private enterprises; however, the corporate governance level becomes a relatively minor consideration, as companies often need to lower their overall governance level in order to maximize their profits.

In summary, in order to maximize corporate performance, SOEs pay more attention to social responsibility disclosure compared to private enterprises, while their overall performance is slightly weaker, because SOEs are subject to more obvious government intervention, and to a certain extent are subject to stricter social supervision and have different social goals than private enterprises.

Table 8: Configuration for improving enterprise performance under heterogeneous property rights

Conditional Variables	State-owned Enterprises(SOEs)			Private Enterprise		
	H5	H6	H7	H8	H9	H10
Z		⊗	●		●	
E	⊗		●	⊗	●	●
S	●	●	●			●
G	●	●	⊗	●		⊗
Row Coverage	0.330	0.267	0.353	0.482	0.609	0.366
Unique Coverage	0.056	0.0023	0.141	0.156	0.174	0.022
Consistency	0.834	0.857	0.873	0.797	0.753	0.827
Total Coverage	0.489			0.795		
Total Consistency	0.845			0.725		

Note: ● indicates the presence of core condition, ● indicates the presence of edge condition; ⊗ indicates the absence of core condition, ⊗ indicates the absence of edge condition; space indicates that the presence or absence of this condition variable is irrelevant.

2.6 Robustness Test

Table 9: Robustness tests for increasing the frequency threshold

Conditional Variables	H1	H2	H3	H4
Z	⊗	●	●	
E	⊗	●	⊗	●
S			●	●
G	●	⊗		⊗
Row Coverage	0.387	0.410	0.367	0.395
Unique Coverage	0.081	0.026	0.057	0.022
Consistency	0.805	0.88	0.839	0.857
Total Coverage	0.643			
Total Consistency	0.791			

Note: ● indicates the presence of core condition, ● indicates the presence of edge condition; ⊗ indicates the absence of core condition, ⊗ indicates the absence of edge condition; space indicates that the presence or absence of this condition variable is irrelevant.

In order to make the conclusions of the fuzzy qualitative comparative analysis reliable, this thesis performs a robustness test by changing the threshold value and consistency. QCA is an ensemble theory research method and can be considered robust when a slight change in the operation produces subset relationships between the results that do not change the substantive interpretation of the research findings (Zhang Ming, and Du Yunzhou, 2019; Judge et al., 2020). The threshold of the case values was adjusted from 1 to 2, as in table 9, and it can be found that the H1 and H4 paths are almost consistent with the previous study configuration. The above robustness tests showed robust results.

3. Conclusion

This paper uses a combination of quantitative and qualitative approaches to study the influencing factors that affect the return on assets of enterprises. The results of fsQCA show that: (1) ESG disclosure is not just a single variable that affects the subject of corporate performance, it has complex heterogeneity with ROE and needs to be analyzed in a groupthink research. (2) ESG disclosure is not contradictory to improving firm performance and reducing firm performance, and the relationship is not linear and symmetric. The qualitative comparative analysis study takes an asymmetric perspective and finds that the key source of data on corporate ESG disclosure is contextual factors. (3) ESG disclosure and corporate performance can be both, but this combination is not simply a single positive or negative influence relationship, only a single factor of ESG cannot constitute a sufficient or necessary condition for corporate value enhancement, only to take into account this multiple interaction, in the form of a combination of inputs to achieve a win-win situation.

Although some research results have been achieved in this study, the following shortcomings remain:

(1) The data in this study are obtained from the CSI ESG rating agency, although the CSI ESG rating agency has a high authority, the definition of ESG-related is clearly defined, so it leads to a low reliability of the collected data; The small number of SOE and private enterprise cases collected in this paper may lead to the low reliability of the research findings. Therefore, in future research, data sources can be expanded, such as collecting data from rating agencies such as SynTao Green Finance, and Social Value Investment Alliance (CASVI), to expand to the sample size and increase the universality of the research findings.

(2) The data structure of this thesis is all cross-sectional and static in nature. This paper only examines the relationship between corporate performance and ESG performance in a single year of a firm, and it remains to be explored whether its results are consistent across years. Therefore, in future research, the data structure can be extended to panel data to reveal the internal relationship between the two in a more comprehensive and dynamic way.

References

- [1] Cajias Fuerst, McAllister Nanda. *Do responsible real estate companies outperform their peers?* [J]. *International Journal of Strategic Property Management*, 2014, 18(1): 11-27.
- [2] Michelson G., Wailes N., Van Der Laan S. et al. *Ethical Investment Processes and Outcomes* [J]. *Journal of Business Ethics*, 2004, 52: 1-10.
- [3] Modigliani F, Miller M H. *The cost of capital, corporation finance and the theory of investment* [J]. 1959, 48(4): 443-453.
- [4] Frykman D. *Corporate Valuation: An Easy Guide to Measuring Value* [J]. *Comp. Prog. Language*, 2003.
- [5] Petra Horvathova, Marie Mikuová. *Acquisition of Talents from Organization's Internal Sources*[C]. *The Proceedings of 2010 International Conference on Business and Economics Research*, 2010: 6-10.
- [6] Ruhaya Atan, Md Mahmudul Alam, Jamaliah Said. *The impacts of environmental, social, and governance factors on firm performance* [J]. *Management of Environmental Quality*, 2018, 29(2):182-194.