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NOTA DE RETRACTACIÓN

Título del artículo: How to Corporate Financialization Impact on Financial Performance, The Moderating/ Mediating Role of ESG (Environmental, Social, and Governance) Practices

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The journal Salud, Ciencia y Tecnología - Serie de Conferencias reports that the above article has been retracted at the author's request, due to the identification of areas that require thorough review and reanalysis to ensure the robustness and clarity of the reported results.

The author has made this decision in order to preserve the scientific rigor of the research.

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ORIGINAL

How to Corporate Financialization Impact on Financial Performance, The Moderating/Mediating Role of ESG (Environmental, Social, and Governance) Practices

Cómo afecta la financiarización corporativa al desempeño financiero: el papel moderador/mediador de las prácticas ESG (ambientales, sociales y de gobernanza)

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ABSTRACT

Measuring corporate financialization concerning environmental, social, and governance standards has not been thoroughly researched, considering the growing attention on this subject among businesses that are not financial. More research is required to truly comprehend the impact of ESG practices on the correlation between financialization and economic performance. Previous research efforts have not correctly accounted for significant variances in this field. This study attempts to address this limitation by investigating the effect of corporate financialization on the financial performance of both State-Owned Enterprises and Non-State-Owned Enterprises in China. The work employed dataset collected about performance indicators of different enterprises from different sources and had identified that the corporate financialization had enhanced financial performance in NSOEs (coefficient=0,3501, p<0,0001) compared to SOEs (coefficient=0,2801, p<0,0001). Further, the study also shows that the environmental component of ESG has a positive and significant impact on financial performance in both SOEs (coefficient=0,1197, p=0,0028) and NSOEs (coefficient=0,1492, p<0,0001).

Keywords: Environmental; Social and Governance Practices; State-Owned Enterprises; Financial Performance; Machine Learning; Coefficient.

RESUMEN

La medición de la financiarización corporativa en relación con los estándares ambientales, sociales y de gobernanza no ha sido investigada a fondo, considerando la creciente atención sobre este tema entre las empresas que no son financieras. Se requiere más investigación para comprender verdaderamente el impacto de las prácticas ESG en la correlación entre la financiarización y el desempeño económico. Los esfuerzos de investigación anteriores no han tenido en cuenta correctamente las variaciones significativas en este campo. Este estudio intenta abordar esta limitación al investigar el efecto de la financiarización corporativa en el desempeño financiero tanto de las empresas estatales como de las empresas no estatales en China. El trabajo utilizó un conjunto de datos recopilados sobre los indicadores de desempeño de diferentes empresas de diferentes fuentes e identificó que la financiarización corporativa había mejorado el desempeño financiero en las NSOE (coeficiente = 0,3501, p < 0,0001) en comparación con las SOE (coeficiente = 0,2801, p < 0,0001). Además, el estudio también muestra que el componente ambiental de ESG tiene un impacto positivo y significativo en el desempeño financiero tanto de las empresas estatales (coeficiente = 0,1197, p = 0,0028) como de las empresas no estatales (coeficiente = 0,1492, p < 0,0001).

Palabras clave: Prácticas Medioambientales; Sociales y de Gobernanza; Empresas Estatales; Rendimiento Financiero; Aprendizaje Automático; Coeficiente.

INTRODUCTION

The Corporate Financialization is an emerging phenomenon in modern economies that had driven CF-driven financial activities in enterprises.[1,2] The CF activities are investments, share buybacks, and the management of financial asset[3] which are carried out by the enterprises in addition to the primary activities, such as producing goods and services. The main attributes of the shift in the enterprise activities are linked to the increasing influence of financial markets and the pursuit of short-term shareholder value, which has reshaped corporate behavior across various industries.[4] The CF is thus defined as the process by which non-financial firms engage in financial activities to generate profits, often at the expense of their core operational functions.[5] This shift has created a debate about the possible implications of financialization for corporate strategy and its long-term sustainability.[6] To measure the performance of any corporation to prove its success, "financial performance" is considered the key indicator that reflects the corporation's health and viability.[7] Further, metrics such as return on assets, earnings per share, and profitability ratios are used by stakeholders to assess a firm's ability to generate profits and deliver value to shareholders.[8] A corporation that displays strong financial performance reflects that it has a better ability to reinvest in growth, innovation, and other strategic initiatives.[9] Therefore, measuring the effect of financialization on increasing the financial performance of such corporations is essential as it may alter the traditional drivers of profitability and long-term success.[10]

Further, in addition to the financialization, the Environmental, Social, and Governance (ESG) practices have become essential factors for corporate governance.[11] These practices are a measure that ensures the firm's operations are sustainable, socially responsible, and ethically governed.[12] The growing influence of ESG practices reflects that corporations now focus on society and the environment to enhance their reputation, reduce risks, and contribute to long-term financial success.[13] The studies about financialization and ESG practices are too limited, and the works that focus on understanding the relationship between these two phenomena and their combined impact on financial performance are also found to be limited.[14,15] Most of the works have considered these two phenomena as isolated practices and have not explored the factors of how financialization might interact with ESG activities to influence financial outcomes.[16] Moreover studies on how ESG practices might moderate or mediate the impact of financialization on financial performance of SOEs and NSOEs had never been conducted. This proposed work attempts to fill this gap by examining the impact of CF and ESG practices on the financial performance of SOEs and NSOEs operating in China. The study had employed a vast dataset collected from different sources that contained different performance indicators of such enterprises. The study had evaluated the impact of financialization using multiple econometric techniques and also analysed how strong ESG practices might enhance or mitigate these effects. The study had identified that the CF had enhanced financial performance in NSOEs (coefficient=0,3501, p<0,0001) compared to SOEs (coefficient=0,2801, p<0,0001). Further, the study also shows that the environmental component of ESG has a positive and significant impact on financial performance in both SOEs (coefficient=0,1197, p=0,0028) and NSOEs (coefficient=0,1492, p<0,0001).

Theoretical Framework

Corporate Financialization and Financial Performance

CF has become an important influencing factor in corporate financial performance by shifting the focus of enterprises toward financial markets and activities. The financial growth cycle theory suggests that the deeper involvement of enterprises in financial actions like debt issuance and stock repurchases could possibly boost the short-term profitability, but at the same time, it may undermine long-term investment in core business areas. As per Agency theory, the financialization is a strategy employed for maximizing the short-term shareholder value, which results in potentially increasing risk due to market fluctuations. Conversely, the Resource-Based View (RBV) emphasizes that using financial resources for innovation and human capital would eventually lead to sustainable gains. It also highlights that prioritizing financial investments may weaken competitive advantages. Further, the stakeholder theory states that neglecting the needs of broader stakeholders for short-term gains could possibly harm the reputation and financial stability of the enterprise over time.[17]

ESG Practices as a Moderator/Mediator

The ESG practices are crucial for corporate strategy and influence how the financialization process affects the enterprise's financial performance. The adaptation of ESG practices in an enterprise acts as a moderator by buffering the adverse effects of financialization. The firms that have better ESG practices are found to maintain better stakeholder relationships that result in enhancing the overall reputation and performance. As mediators, the ESG practices convert the financialization efforts taken up by an enterprise into beneficial outputs like sustainable investments, increased operational efficiency, and brand value. The stakeholder theory suggests that ESG aligns with the diverse stakeholder interests of the enterprise and its financial goals, which results in long-term success. The RBV suggests that ESG practices are unique resources that transform financial inputs into competitive advantages that directly improve the enterprise's financial performance.[18] Based on the above framework, the following hypothesis was constructed:

Hypothesis 1 (H1)

1. CF impacts financial performance.
2. Derived from the financial growth cycle theory, this hypothesis emphasizes how financialization influences financial outcomes for firms both positively and negatively.

Hypothesis 2 (H2)

1. ESG practices moderate the relationship between CF and financial performance.
2. This hypothesis is based on the moderation theory, which asserts that robust ESG practices buffer or alter the impact of financialization on financial performance.

Hypothesis 3 (H3)

1. ESG practices mediate the relationship between CF and financial performance.
2. This hypothesis is based on mediation theory, which states that ESG practices are a conduit through which financialization influences financial performance.

METHOD

Data Collection

Data were sourced from the China Stock Market & Accounting Research (CSMAR) database, which contained financial indicators such as return on assets, earnings per share, and debt-to-equity ratios of both SOE and NSOE operating in China. The ESG ratings of the enterprises were acquired from the MSCI ESG Ratings database. The sample included 200 publicly listed Chinese companies across various sectors, active in the financial market from 2015 to 2020. Table 1 presents the industry details of the dataset.

Table 1. Breakdown data of sampled industries

Industry	SOE	%	NSOE	%	Total	%
Technology	10	5	15	7,5	25	12,5
Manufacturing	20	10	30	15,0	50	25,0
Energy & Utilities	15	7	10	5,0	25	12,5
Financial Services	12	6	13	6,5	25	12,5
Healthcare	8	4	12	6,0	20	10,0
Consumer Goods	10	5	10	5,0	20	10,0
Real Estate	5	2,5	5	2,5	10	5,0
Telecommunications	7	3,5	3	1,5	10	5,0
Transportation	8	4	7	3,5	15	7,5
Total	95	47,5	105	52,5	200	100

Variables and Measurement

Primary Variables

The following metrics are used as the primary variables in this study:

Corporate Financialization (Fin)

$$\text{Fin Index} = \frac{\text{Total Financial Assets}}{\text{Total Assets}} + \frac{\text{Financial Income}}{\text{Total Income}}$$

Financial Performance (FP)

It is measured in terms of return.

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$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

The ESG Score

It is calculated using the ratings provided by SynTao Green Finance STαR ESG Data platform, which evaluates companies based on their performance across environmental, social, and governance dimensions:[18]

$$\text{ESG Score} = \omega_E \times \text{Environmental Score} + \omega_S \times \text{Social Score} + \omega_G \times \text{Governance Score}$$

Where: ω_E, ω_S, ω_G are the weights assigned to the Environmental, Social, and Governance scores, respectively.

Control Variables[18]

The following control variables are used in this study

Size of the Firm (Size): measured by the natural logarithm of total assets, firm size impacts financial performance and financialization levels.

$$\text{Size} = \ln(\text{Total Assets})$$

Leverage (Lev): represented by the debt-to-equity ratio, which assesses a firm's financial structure and risk profile.

$$\text{Lev} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Age of the Firm (Age): calculated as the years since the firm was founded, indicating its maturity and potential market experience.

Age Current Year - Year of Incorporation

Market Conditions (Market): market conditions are quantified using the VIX index as a general measure of market volatility.

Table 2. Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
CF (Fin)	0,2543	0,0832	0,1011	0,3994
Financial Performance (FP)	0,1540	0,0524	0,0512	0,2487
ESG Practices (ESG)	75,2500	10,3256	50,2734	89,7845
Size of the Firm (Size)	22,4570	1,5003	20,0045	24,9978
Leverage (Lev)	0,5025	0,2040	0,1023	0,8977
Age of the Firm (Age)	15,2360	5,0074	5,0023	24,9984
Market Conditions (Market)	30,0023	5,0017	20,0041	39,9989

Table 3. Univariate analysis

Variable	Skewness	Kurtosis
CF (Fin)	0,5	-0,8
Financial Performance (FP)	0,2	0,1
ESG Practices (ESG)	-0,4	0,3
Size of the Firm (Size)	0,3	-1,2
Leverage (Lev)	0,6	-0,5
Age of the Firm (Age)	0,1	-1,0
Market Conditions (Market)	-0,2	-0,9

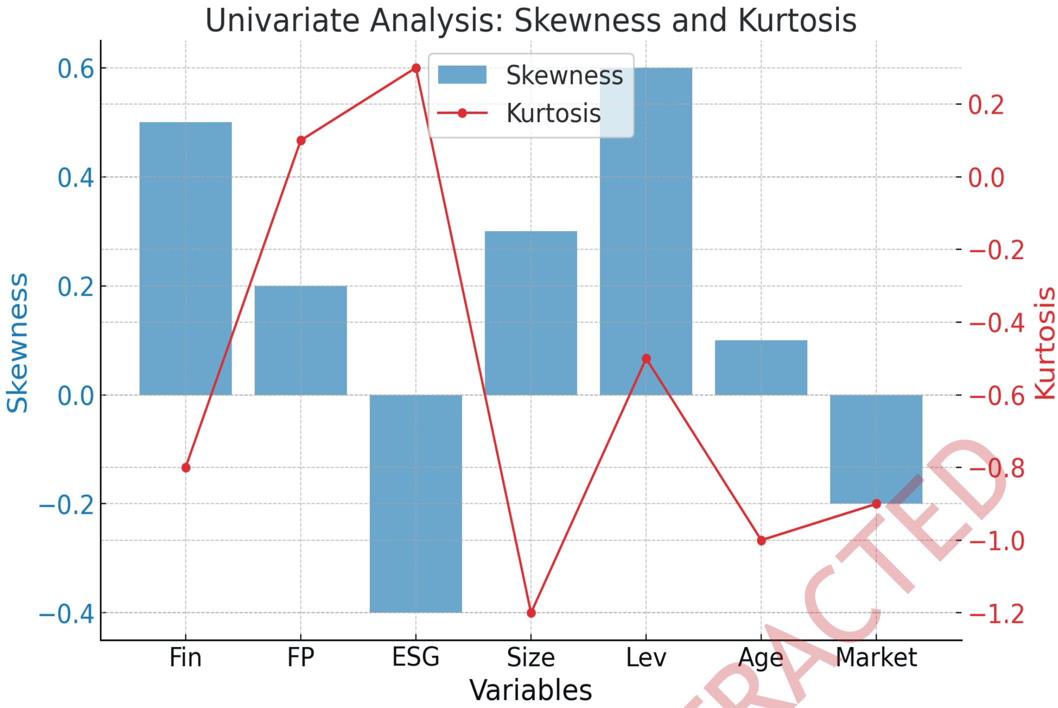

Figure 1. Univariate analysis of the variables

The descriptive and univariate analysis of the variables are shown in table 2 and table 3; figure 1 shows key distributional characteristics of the variables under study, focusing on skewness and kurtosis. CF exhibits a moderately right-skewed distribution, with a skewness of 0,5. The negative kurtosis of -0,8 suggests a flatter distribution, meaning fewer extreme values or outliers. Financial performance, with a slight right skewness of 0,2, shows that while most firms cluster around average performance, some outperform significantly. Its near-normal kurtosis of 0,1 indicates a balanced distribution of performance metrics. ESG practices display a left skewness of -0,4, indicating that most firms have higher ESG scores, with a smaller number lagging. The slightly positive kurtosis of 0,3 suggests a distribution with a concentration of firms around higher scores. Firm size, with a skewness of 0,3, is also right-skewed, implying that most firms are small to medium, while a few are significantly larger. The kurtosis of -1,2 reflects a very flat distribution, showing a broad spread in firm sizes. Leverage shows a right skewness of 0,6, and the kurtosis of -0,5 indicates a flatter-than-normal distribution with a wide range of leverage values. The age of the firms has a near-symmetrical distribution with a slight right skewness of 0,1 and a kurtosis of -1,0, which points to a flat distribution with a wide range of firm ages. Lastly, market conditions, with a slight left skewness of -0,2, suggest that most observed conditions were stable or slightly favorable, while the kurtosis of -0,9 reflects a broad range of market scenarios with fewer extreme conditions.

RESULTS

Impact of CF on financial performance

Table 4. Impact of CF SOE's financial performance

Variable	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval (95 %)
CF (Fin)	0,2801	0,0548	5,0912	<0,0001	(0,1723, 0,3879)
Size of the Firm (Size)	-0,0452	0,0119	-3,7524	0,0002	(-0,0691, -0,0213)
Leverage (Lev)	0,0649	0,0251	2,5984	0,0091	(0,0158, 0,1140)
Age of the Firm (Age)	0,0032	0,0042	0,7484	0,4533	(-0,0051, 0,0115)
Market Conditions (Market)	-0,0082	0,0031	-2,6731	0,0077	(-0,0143, -0,0021)

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Table 5. Impact of CF NSOE's financial performance

Variable	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval (95 %)
CF (Fin)	0,3501	0,0403	8,7543	<0,0001	(0,2712, 0,4295)
Size of the Firm (Size)	-0,0552	0,0094	-6,1132	<0,0001	(-0,0731, -0,0374)
Leverage (Lev)	0,0903	0,0182	5,0021	<0,0001	(0,0543, 0,1264)
Age of the Firm (Age)	0,0071	0,0031	2,3325	0,0203	(0,0014, 0,0132)
Market Conditions (Market)	-0,0124	0,0021	-6,0032	<0,0001	(-0,0163, -0,0087)

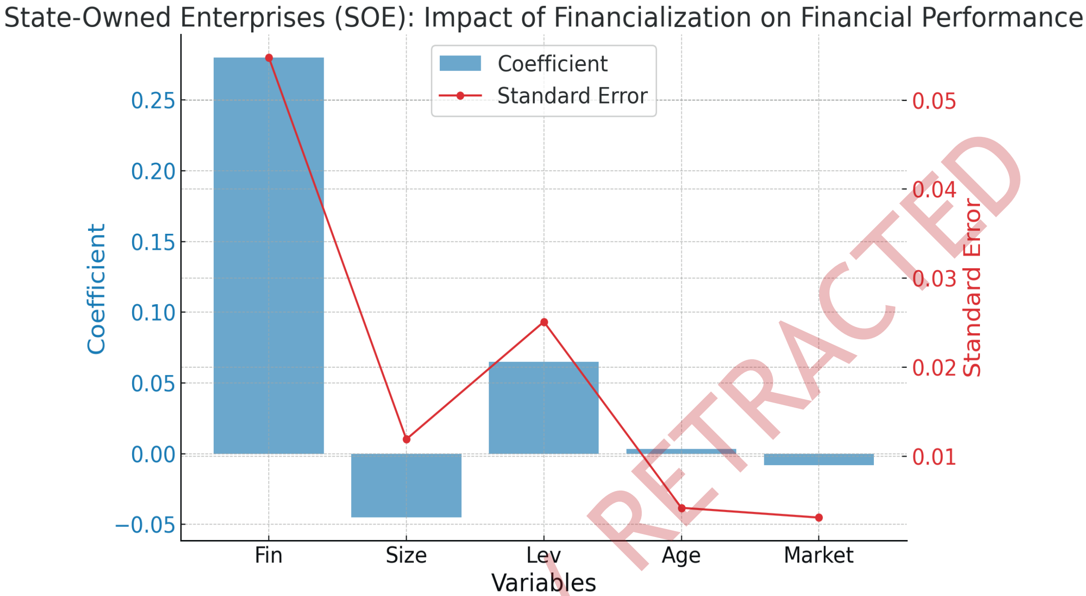

Figure 2. CF impact on SOE's financial performance

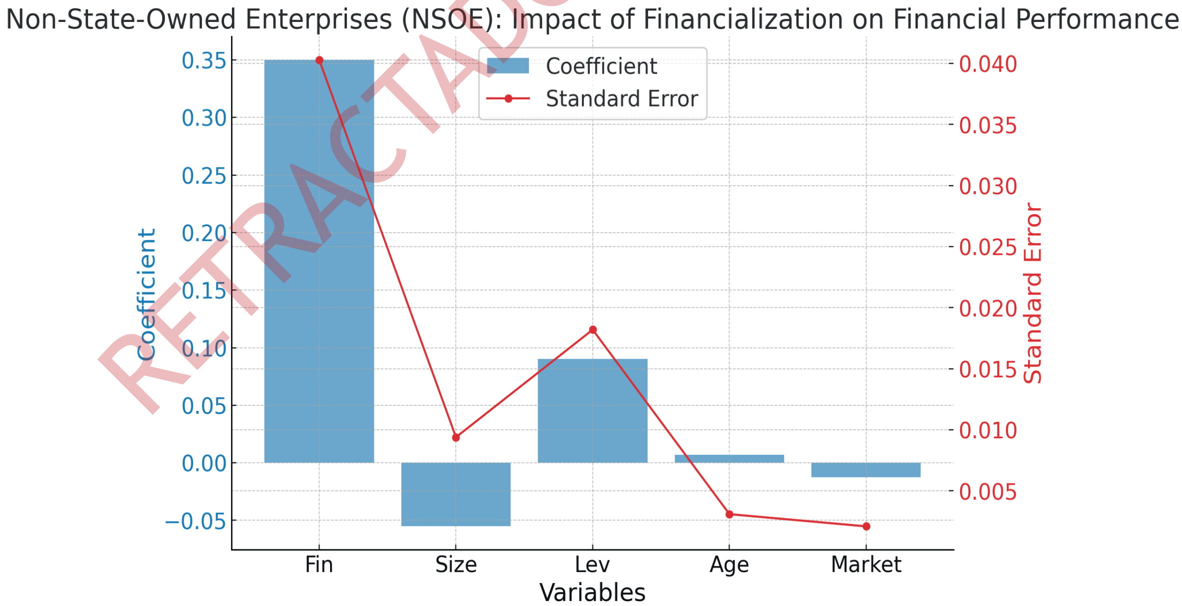

Figure 3. CF impact on NSOE's financial performance

The analysis of the impact of CF on SOE's financial performance is shown in table 5 and figure 2. The CF shows a significant positive effect on financial performance, as indicated by a coefficient of 0,2801 and a highly significant p-value of less than 0,0001. The firm's size negatively impacts financial performance, with a coefficient of -0,0452, indicating that larger SOEs tend to perform worse financially, possibly due to inefficiencies associated with more extensive operations. Leverage also has a positive effect, with a coefficient of 0,0649, suggesting that SOEs with higher leverage tend to perform better financially. However, the firm's age does not significantly impact financial performance, as indicated by a p-value of 0,4533, and market conditions show a negative influence with a coefficient of -0,0082, suggesting that adverse market conditions slightly diminish financial performance in SOEs.

In contrast, as shown in table 5 and figure 2. The CF has an even more substantial positive impact on financial performance in NSOEs, with a coefficient of 0,3501 and a p-value of less than 0,0001, indicating that financialization plays a more critical role in enhancing financial performance in these enterprises. The negative impact of firm size is more pronounced in NSOEs, with a coefficient of -0,0552. Leverage has a more substantial positive effect in NSOEs, with a coefficient of 0,0903, reflecting that these firms might use debt more strategically to boost performance. The firm's age has a modest positive impact on financial performance in NSOEs, with a coefficient of 0,0071.

Evaluation of the Moderating/Mediating Role of ESG Practices

Table 6. Evaluation of ESG in SOE

Variable	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval (95 %)
Environmental Score (Env)	0,1197	0,0396	3,0217	0,0028	(0,0419, 0,1975)
Social Score (Soc)	0,0798	0,0347	2,3005	0,0217	(0,0112, 0,1484)
Governance Score (Gov)	0,0496	0,0295	1,6813	0,0932	(-0,0084, 0,1076)
Size of the Firm (Size)	-0,0203	0,0101	-2,0099	0,0447	(-0,0402, -0,0004)
Leverage (Lev)	0,0448	0,0202	2,2178	0,0269	(0,0049, 0,0847)
Age of the Firm (Age)	0,0012	0,0024	0,5000	0,6173	(-0,0035, 0,0059)
Market Conditions (Market)	-0,0061	0,0031	-1,9677	0,0495	(-0,0121, -0,0001)

Table 7. Evaluation of ESG in NSOE

Variable	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval (95 %)
Environmental Score (Env)	0,1492	0,0298	5,0101	<0,0001	(0,0908, 0,2076)
Social Score (Soc)	0,0997	0,0249	4,0040	<0,0001	(0,0508, 0,1486)
Governance Score (Gov)	0,0784	0,0198	3,9596	0,0001	(0,0396, 0,1172)
Size of the Firm (Size)	-0,0298	0,0081	-3,6790	0,0002	(-0,0458, -0,0138)
Leverage (Lev)	0,0551	0,0150	3,6733	0,0003	(0,0255, 0,0847)
Age of the Firm (Age)	0,0043	0,0021	2,0476	0,0409	(0,0002, 0,0084)
Market Conditions (Market)	-0,0102	0,0021	-4,8571	<0,0001	(-0,0144, -0,0060)

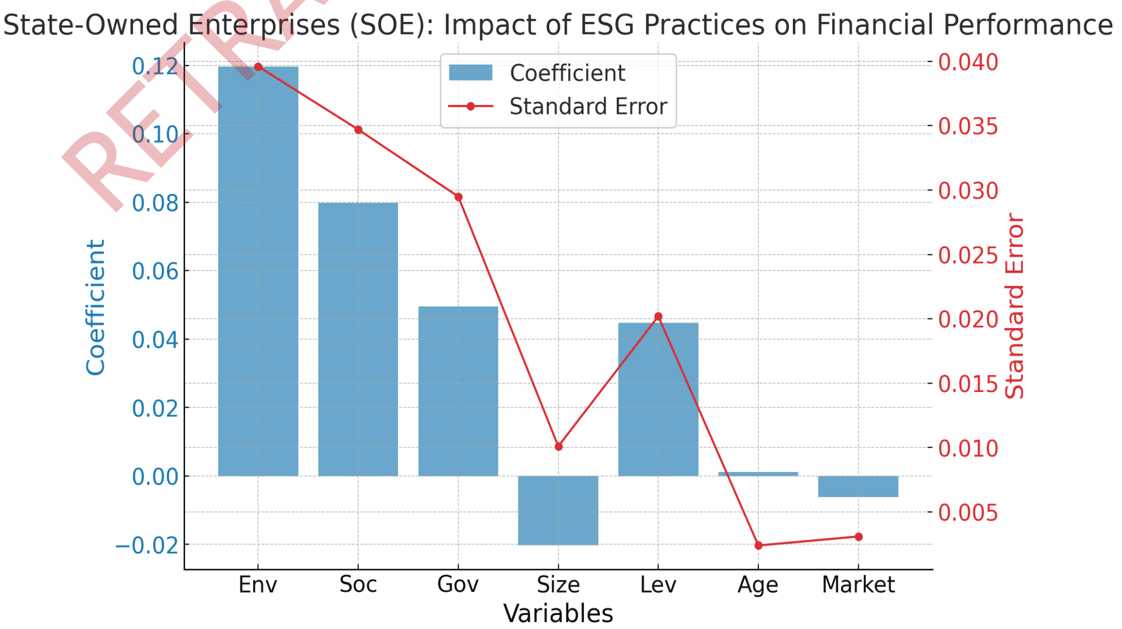

Figure 4. ESG impact on SOE's financial performance

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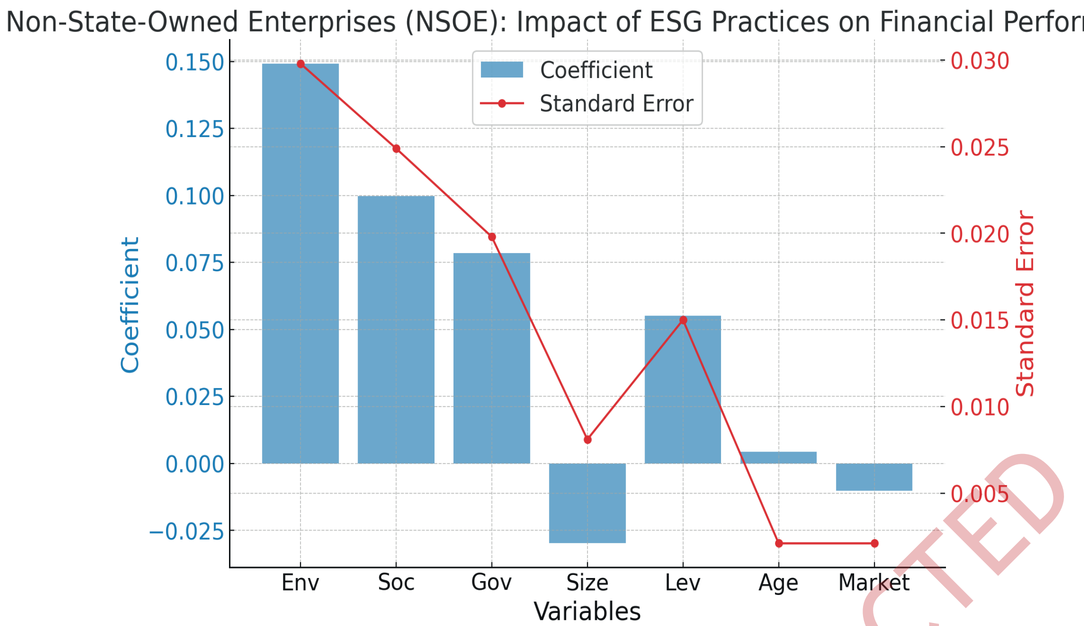

Figure 5. ESG impact on NSOE's financial performance

DISCUSSION

The influence of ESG on an enterprise's financial performance is shown in table 6 and table 7 for SOE and NSOE, respectively. In SOEs, as shown in figure 4, the environmental score exhibits a significant positive effect on financial performance, with a coefficient of 0,1197 and a p-value of 0,0028. The social score also positively influences financial performance, though to a lesser extent, with a coefficient of 0,0798 and a p-value of 0,0217. However, the governance score shows a weaker and marginally non-significant effect, with a coefficient of 0,0496 and a p-value of 0,0932. Among the control variables, firm size negatively impacts financial performance. In NSOEs, as shown in figure 5, ESG practices have a better impact on financial performance across all three dimensions. The environmental score has a strong positive effect, with a coefficient of 0,1492 and a highly significant p-value of less than 0,0001. The social score similarly shows a considerable positive impact, with a coefficient of 0,0997 and a p-value of less than 0,0001. The governance score also demonstrates a significant positive effect, with a coefficient of 0,0784 and a p-value of 0,0001. The control variables in NSOEs show similar patterns to SOEs, with firm size negatively impacting financial performance and leverage contributing positively. However, the firm's age in NSOEs has a modest positive effect, and market conditions show a more substantial negative impact.

CONCLUSIONS

The findings reveal that CF had enhanced the financial performance of Non-State-Owned Enterprises compared to State-Owned Enterprises. These findings show that NSOEs are more capable of leveraging financial activities for improved financial outcomes. The study highlighted the role of ESG practices in shaping the relationship between financialization and financial performance of both the SOE and NSOE. The findings revealed that both SOEs and NSOEs, with more robust environmental and social practices, display enhanced financial performance.

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FINANCING
None.

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