

Impact of Managers' Awareness on ESG Information Disclosure in Vietnamese Enterprises: The Role of ESG Implementation and Legal Framework

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Abstract

The growing community interest in environmental and social issues and the growing urgency in addressing the United Nations's sustainable development goals have led to the need to measure progress towards environmental and social responsibility goals. While CSR implementation reflects an organization's commitment to considering and addressing environmental and social challenges, ESG helps measure these efforts and commitments, thereby communicating information to the outside world that can understand the company's operations (Zenon and Renata, 2022). This shift has positioned ESG at the forefront, ushering in a new era of sustainability-related information disclosure in the global market. This study surveyed the Board of Directors, Heads/Deputies of Departments, and employees at 197 Vietnamese enterprises to assess the impact of Managers' perceptions on ESG information disclosure in Vietnamese Enterprises. Data analysis reveals that managers' limited understanding of ESG negatively affects the disclosure of ESG information. In addition, the study indicates that ESG implementation plays an intermediate role in the relationship between managers' awareness of the three aspects of E, S, and G and the disclosure of ESG information at enterprises. The legal framework is important in regulating the relationship between Managers' Awareness and ESG information disclosure at Vietnamese enterprises. The article is the basis for future research to learn about the current situation and factors affecting the application of ESG in Vietnamese Enterprises. It is essential to develop solutions and recommendations to promote the implementation and disclosure of ESG information in particular, promote sustainable development, and shorten the integration time into the world's development process in general.

Keywords: ESG information disclosure, Vietnamese enterprises, Legal framework, Managers' awareness, Sustainable development

1. INTRODUCTION

In the period when the world economy is being affected by many factors, such as the impact of the post-COVID-19 pandemic or the Russia-Ukraine war upsetting the economy, leading to an unprecedented increase in energy prices,... These factors directly affect business operations, intensifying competition in the market, and not all companies can withstand these pressures. Multinational companies are increasingly moving towards sustainable development, where they can maintain long-term operations so as not to be shut down by the world's uncertainties due to sustainable investments that generate significant financial returns and positively impact society and the environment (Kiron & al., 2012).

Currently, several enterprises are using sets of standards and indicators used to assess sustainable development, such as the ISO26000 set of standards, the Set of standards for preparing the GRI Sustainable Development Report; ESG indicators rank and evaluate the sustainability of enterprises (Zenon & Renata, 2022). In particular, the ESG indicators and reports of enterprises are essential, becoming one of the leading standards for financial investors and business partners to choose enterprises, and the cash flow of investment in enterprises that meet ESG standards has increased sharply with the development of the ESG ecosystem. It can be seen that investors

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are gradually shifting the trend of paying attention to the core values of enterprises instead of only using ordinary financial indicators.

From there, the environmental, social, and governance (ESG) practices of enterprises form a new accountability measure that reflects a voluntary commitment to non-financial goals. In addition, according to studies by Alhawaj et al. (2023), Bruna et al. (2022), and Zumente et al. (2021),... all pointed out the positive results of corporate ESG practices such as improving brand loyalty and reputation, improving investors' awareness of risks and company performance, reducing capital costs and maintaining social acceptance leading to increased revenue and profit. Research by El Ghouli et al. (2011) has affirmed the importance of ESG by pointing out that agency theory increasingly depends on ESG disclosure and its impact on the future as well as the current performance of enterprises.

In addition, Van Kleef & et al. (2009) have shown that cognition controls behavior; people will be aware of the difficulty or ease of performing a certain behavior. Wang Ze et al. (2017) also found that cognition has a moderating effect on reaction behavior to a specific situation. Therefore, when managers are aware of the benefits brought by ESG disclosure, such as enhancing corporate reputation, improving market trust, or more effective risk management (Gali et al., 2016), they will be capable of implementing and publishing ESG.

Currently, more and more businesses in Europe and around the world are disclosing ESG information, and the quality of disclosure information is also increasing (Aluchna et al., 2023; Arif et al., 2022). According to Buallay et al. (2023), government regulations play an important role in publishing sustainable development reports. Muhammad Arif et al.'s (2022) study shows "there is a positive impact of the directive on the number of ESG disclosures by organizations in Europe," which suggests that mandatory NFRD reporting requirements may promote greater ESG-related disclosure (Rezaee et al., 2022). Additionally, companies in the EU have higher levels of ESG disclosure than companies in the US and China (Rezaee et al., 2023; Fiechter et al., 2022). Explaining this, the fact is that in Europe, the disclosure of ESG reports is mandatory under Directive 2014/95/EU, unlike in the US and China, where disclosure is voluntary (Maria et al., 2023). In India, the 1000 largest enterprises on the stock exchange are required to report their ESG data according to the standards of the Sustainability Report (SR), but disclosure is voluntary. These enterprises will choose the information they want to publish and may not publish information they think will have a negative impact on the company (Vinay et al., 2023).

In Vietnam, the Government has issued laws and decrees related to ESG, most specifically Circular 96/2020/TT-BTC guiding information disclosure on the stock market, including ESG reporting. Or Decision 167/QĐ-TTg approving the "program to support private sector enterprises for sustainable business in the period 2022-2025". Besides, there are many companies listed on the Stock Exchange that have built and published Sustainable Development Reports (SDR), such as Vinamilk, ACB, PAN Group, and Bao Viet, but there are more than 70% of enterprises that have never published an ESG report to the outside world or rarely published them (PwC, 2022).

Yafei Tan and Zhaohui Zhu (2022) affirmed that ESG ratings promoted NQT's environmental awareness so that they could purposefully invest in green technology innovation. According to research by Buallay et al. (2023), managers's awareness of the importance of SDR is increasing in developing and developed markets, thereby promoting the publication of SDR, and the quality of reports is also increasingly improved. Another research by Bruna et al. (2022) points out the benefits of ESG information disclosure, such as it can help companies attract talent, achieve financial efficiency, and help improve the company's value and profitability in the market (Alhawaj et al., 2023; Zumente et al., 2021; Sisaye, 2021).

Vietnam is one of the emerging economies, attracting much attention from domestic and foreign investors. ESG is currently a world trend, given top priority when investors decide to invest in capital. This study was conducted to assess the impact of Managers' perceptions on ESG information disclosure in Vietnamese enterprises. From there, it contributes to investors from a more practical perspective on the interest in ESG of Vietnamese enterprises.

2. LITERATURE REVIEW AND HYPOTHESIS

Rationale for ESG

Nowadays, due to the increase in concerns about climate change, organizations, governments, and other stakeholders are turning their attention to ESG initiatives and strategies because CSR is not enough to ensure the sustainability and risk resilience of enterprises. Recently, ESG has always been emphasized at COP26 - a common trend of the whole world. The ISSB has issued its first set of standards, IFRS S1 and IFRS S2, focusing on the

disclosure of common sustainability-related information. This move has opened a new era of information disclosure related to sustainability in the world capital market.

Concept and role of ESG

According to research by PwC (2022), ESG is a set of environmental, social, and corporate governance standards during company operations, which is a guideline to help stakeholders understand how businesses manage risks and opportunities in all three aspects. Thus, ESG can be considered a set of standards used to measure factors related to sustainable development and the impact of enterprises on the community in three aspects: environment, society, and governance. According to Zumente, I. and Bistrova, J. (2021), ESG can help companies strengthen their reputation, increase team management skills and employee productivity, and disclose ESG information that improves company value and profitability in the market, achieving financial efficiency (Bruna et al., 2022). According to Bao Binh (2023), ESG factors are considered in investment decisions, such as pouring capital into businesses or the image of the business being affected if the ESG index is not improved, etc. Implementing ESG effectively can help limit costs incurred in the operation of enterprises (McKinsey, 2019). According to Vinay et al. (2023), ESG reporting helps investors make more reasonable decisions and investments.

Manager's awareness of environmental responsibility

Tan et al. (2022) also pointed out that managers' perceptions of environmental protection determine how the company adopts behaviors that respond to the environment. Therefore, practicing activities related to environmental protection is an effective platform to help improve market confidence and enhance the reputation of businesses (Gali et al., 2016)—research by Hang et al. (2023) also shows that manager's perception of environmental aspects positively impacts SRA implementation.

Manager's awareness of social responsibility

Al-Malkawi et al. (2014) demonstrate that CSR disclosure positively impacts corporate reputation, reducing risk levels and increasing market confidence. This result is similar to Gali et al.'s study (2016) on the dissemination of social practices of enterprises. Le Thi Kim Nhung et al. (2023) proved that a Manager's awareness of social aspects (customer protection) positively impacts management and environmental practices.

Manager's awareness of governance aspects

Manager's awareness of the governance aspects (anti-corruption) positively influences ESG practices (Le Thi Kim Nhung et al., 2023). Research by Mahmoud Arayssi et al. (2020) surveying board members in Gulf countries found that implementing appropriate governance not only improves shareholder welfare but also helps allocate resources more effectively and raise awareness of environmental practices.

Manager's awareness of ESG and the disclosure of ESG information

Ruhaya and colleagues (2016) argue that a company's decision to disclose ESG is greatly influenced by stakeholders' perceptions, including managers. Additionally, female directors often have a higher level of ESG disclosure than male directors (Arayssi et al., 2020). Previous studies have found that disclosure of ESG information will lead to more efficient operations (Sisaye, 2021; Alhawaj et al., 2022), or companies can attract long-term investment capital (Alhawaj et al., 2023). Therefore, when managers know the benefits of this ESG information disclosure, they may promote ESG information disclosure further in their business. In the above hypotheses, the author examines the manager's perception of each environmental, social, and governance aspect of ESG implementation. Regarding the disclosure of ESG information, the author will combine the impact of the manager's perception across all three aspects into a single hypothesis (H4).

ESG implementation

Although there has been no research to say that ESG implementation is an intermediate variable of manager's awareness and ESG disclosure, there have been many studies on the impact of intermediate variables on information disclosure. Research by Awwad et al. (2023) and Mahmoud et al. (2020) has shown the relationship between the participation of women on the board of directors and the effectiveness of the company's financial goals and the disclosure of CSR and ESG information on the enterprise. Al Amosh et al. (2022) also pointed out that there is a gap between what businesses do and what they announce. Thus, we can see that the awareness of managers has an impact on the implementation and disclosure of ESG, and the implementation of ESG also has an impact on ESG information disclosure because there is a certain relationship between them.

Legal framework

Popova et al. (2013) support the view that mandatory information disclosure regulations will lead to higher levels of information disclosure than voluntary. Buallay et al. (2022) also affirmed that one of the things that motivates businesses to expand information disclosure on SDR is government regulations or the lack of mandatory

disclosure laws are the challenges to the publication of sustainable development reports (Al Amosh et al., 2022). One of the main reasons companies disclose ESG information is to comply with regulations imposed by the government (Vinay et al., 2023). Enterprises will only perform activities related to E, S, and G if they consider them costly unless they are forced to do so (Maria et al., 2023).

Hypothesis

Hypothesis H1: Managers' awareness of environmental responsibility has a positive impact on the ESG implementation of enterprises.

Hypothesis H2: Managers' awareness of social responsibility has a positive impact on the enterprise's ESG performance.

Hypothesis H3: Managers' awareness of governance aspects has a positive impact on businesses' ESG practices.

Hypothesis H4: Managers' awareness of the three aspects, E, S, and G, has a positive impact on the enterprise's ESG information disclosure.

Hypothesis H5: Managers' awareness of ESG information disclosure has a positive impact on the enterprise's ESG information disclosure.

Hypothesis H6: ESG implementation is an intermediate variable in the relationship between managers' awareness of ESG to ESG information disclosure at enterprises.

Hypothesis H7: The legal framework has a positive impact on the relationship between managers' awareness and the enterprise's ESG implementation.

Hypothesis H8: Legal framework has a positive impact on the relationship between ESG implementation and enterprise ESG information disclosure.

3. RESEARCH METHODS

Qualitative research: Hypotheses and scales are built based on references to previous research papers and related theories with the same research content. Summarize models of the relationship between managers' perceptions and ESG announcements of enterprises to serve as a basis for the arguments in this research paper. Quantitative research: Build a linear structural model and a questionnaire with three parts: General assessment of ESG implementation and disclosure; evaluation of the level of influence using a 5-point Likert scale, with scores from 1 to 5 corresponding to not influential at all, slightly influential, moderately influential, highly influential, and very highly influential; and general information about the business. Data was collected via online surveys and interviews. From there, data analysis will be conducted with the support of Excel and SPSS 20 software. This data will be statistically analyzed, tested for reliability and correlation, and analyzed using regression models. The sampling formula $N = 5x$ was used to conduct exploratory factor analysis (Hair, 2006). The study includes 30 questions, with a minimum sample size required to conduct EFA being 150 when applying a ratio of 5:1. According to Theo Tabachnick & Fidell (2013), to conduct multiple regression analysis, the minimum sample size is calculated using the formula: $N = 8x + 50$. The study provides five independent variables, so the minimum sample size is 90 samples. Four hundred fifty questionnaires were sent out for the survey and a response rate of 46.2% (corresponding to 208 responses), of which 197 survey forms were valid (accounting for 94.7% of the responses received), meeting the minimum sample size requirement for multivariate regression analysis.

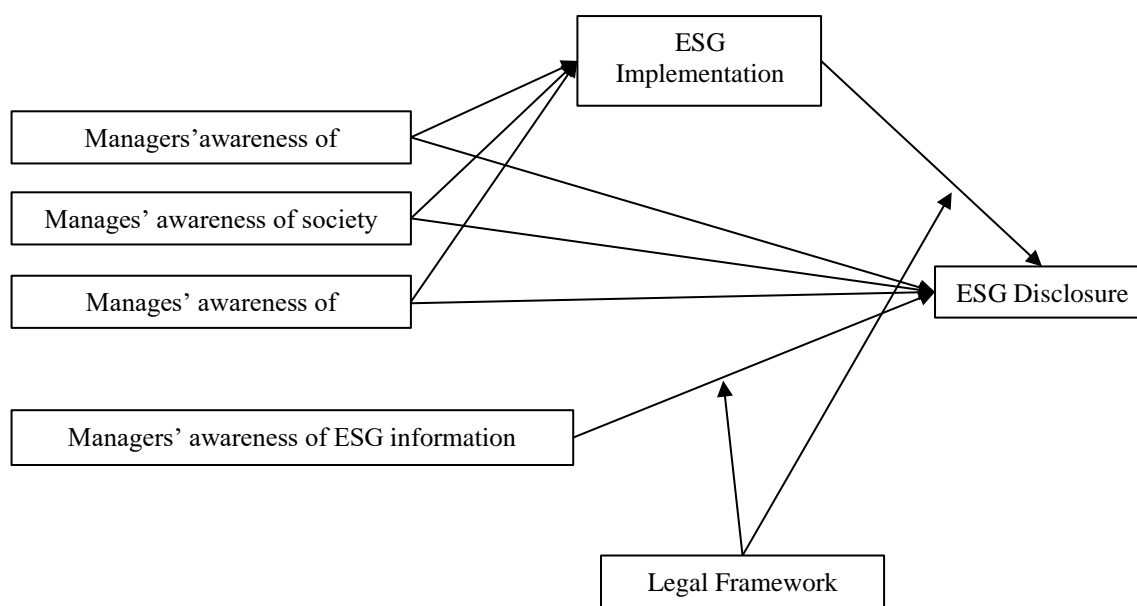


Fig 1. Research Model

4. RESULTS AND DISCUSSION

The valid survey sample consisted of 197 respondents, 59.9% of whom were female and 40.1% male. The respondents included members of the Board of Directors, department heads/deputies, and employees at enterprises operating in Vietnam. Most respondents, accounting for 34.5% of the sample, were from private or family-owned businesses. The remaining individuals came from state-owned enterprises (18.3%), FDI enterprises (21.8%), and listed enterprises (25.4%).

Up to 37.1% of the survey sample are enterprises with the average annual revenue of less than 10 billion VND, 34.5% of enterprises with the average revenue of 10 - 100 billion VND, revenue over 200 billion VND accounting for 17.8% of the total survey sample and the remaining 10.7% are enterprises with the average annual revenue from 100 - 200 billion. In terms of years of operation, the survey results indicate that 43.1% of the enterprises have been in operation for 5–10 years, making up the largest group. The remaining groups are 28.9%, 15.2%, and 12.7%, respectively, with less than 3 years, over 10 years, and 5 - 10 years of operation.

4.1 Descriptive statistics of the scale

Among the variables, G4 and G3 have the most significant impact on ESG implementation in Vietnamese enterprises, consistent with PwC's 2022 survey results. The governance aspect that enterprises are most interested in is among the three ESG aspects of enterprises. On the contrary, the two indicators of variables S1 and S2 show that managers believe that enterprises do not need to carry out charity work and do not care about improving working conditions for employees.

To adapt to global developments, businesses have planned to implement several ESG criteria (I2 accounts for the highest proportion in the survey). Additionally, a large proportion of enterprises still lack an ESG program (I1), and only a small number of companies have utilized measurement indicators (I5)). Regarding information disclosure, more than half of the surveyed enterprises have not disclosed ESG information (D1).

Table 1. Descriptive statistics of ESG implementation and disclosure scales.

	N	Minimum	Maximum	Mean	Std. Deviation
E1	197	3	5	3.38	.625
E2	197	2	5	3.19	.498
E3	197	3	5	3.17	.449
E4	197	2	5	3.30	.654
E5	197	2	5	3.17	.621
E6	197	1	5	3.42	.764
S1	197	1	5	2.14	.740
S2	197	1	5	2.29	.716

	N	Minimum	Maximum	Mean	Std. Deviation
S3	197	2	5	4.05	.680
S4	197	1	5	3.04	.807
S5	197	3	5	3.97	.552
S6	197	1	5	3.51	.773
G1	197	1	5	3.76	.677
G2	197	1	5	3.72	.647
G3	197	2	5	4.20	.559
G4	197	2	5	4.29	.574
G5	197	1	5	3.67	.661
G6	197	1	5	3.26	.826
AD1	197	3	5	3.98	.468
AD2	197	1	5	3.67	.748
AD3	197	2	5	3.49	.675
AD4	197	1	5	4.08	.543
AD5	197	4	5	4.22	.414
AD6	197	1	5	3.03	.658
I1	197	0	1	.28	.450
I2	197	0	1	.35	.478
I3	197	0	1	.22	.414
I4	197	0	1	.14	.345
I5	197	0	1	.02	.123
D1	197	0	1	.58	.495
D2	197	0	1	.35	.477
D3	197	0	1	.08	.266
LD1	197	3	5	3.64	.558
LD2	197	4	5	4.10	.303
LD3	197	2	5	3.85	.532
N	197				

4.2 Reliability examination of the scale

Following the testing and comparison phases, with total correlation coefficients greater than 0.3 and Cronbach's Alpha coefficients greater than 0.7, the remaining factors were deemed acceptable and reliable for further analysis.

Table 2. Summary of results of evaluating the reliability of Cronbach's Alpha scale after removing the variables.

Scale	Corrected Item-Total Correlation	Cronbach's Alpha Item Deleted
I. Managers' awareness of environmental responsibility (E)		
Cronbach's Alpha coefficient of variable E: .737		
E1	.485	.698
E2	.484	.699
E3	.635	.657
E4	.549	.672
E5	.405	.703
II. Managers' awareness of social responsibility (S)		
Cronbach's Alpha coefficient of variable S: .784		
S1	.687	.698
S2	.525	.735
S3	.427	.765
S4	.618	.721
S5	.574	.736
III. Managers' awareness of governance aspects (G)		
Cronbach's Alpha coefficient of variable G: .827		
G1	.828	.726
G2	.802	.736
G3	.507	.803
G4	.369	.819
G5	.631	.790
IV. Managers' awareness of ESG information disclosure (AD)		
Cronbach's Alpha coefficient of variable AD: .776		
AD1	.679	.704
AD2	.498	.770
AD3	.558	.735
AD4	.652	.702
AD5	.474	.762
V. Legal framework (LD)		

Cronbach's Alpha coefficient of variable LD: .772

LD1	.568	.000
LD2	.568	.000

4.3 Exploratory Factor Analysis

Table 3. KMO and Bartlett's test of variables belonging to the group of factors affecting ESG implementation at Vietnamese enterprises.

Element	Result	Compare with theory
Sig.	.000	< 0.05
KMO	.693	> 0.5 and < 1
Total Variance Explained	83,661	> 50%
Eigenvalue	1.117	> 1

Table 4. Rotated matrix table of variables belonging to the group of factors affecting ESG implementation at Vietnamese enterprises.

	Component Matrix		
	1	2	3
G3	.954		
G2	.941		
G5	.919		
G1	.898		
E1		.937	
E4		.926	
E3		.863	
S3		.812	
S2			.847
S4			.789

Table 5. KMO and Bartlett's test of variables belonging to the group of factors affecting ESG information disclosure at Vietnamese enterprises.

Element	Result	Compare with theory
Sig.	.000	< 0.05
KMO	.832	> 0.5 and < 1
Total Variance Explained	55,748	> 50%
Eigenvalue	3.345	> 1

Table 6. Rotated matrix table of variables belonging to the group of factors influencing the impact on ESG information disclosure at Vietnamese enterprises.

	Component Matrix
	1
AD4	.827
AD1	.811
AD3	.729
AD5	.672
AD2	.671

Table 7. KMO and Bartlett's test for legal framework variable.

Element	Result	Compare with theory
Sig.	.000	< 0.05
KMO	.600	> 0.5 and < 1
Total Variance Explained	77,386	> 50%
Eigenvalue	1.568	> 1

Table 8. Rotated matrix table of legal framework variables.

	Component Matrix
	1
LD2	.885
LD1	.885

All coefficients are theoretically consistent, representing the correlation between observational and dependent factors. According to the rotated matrix table, all variables have load coefficients greater than 0.7, indicating strong statistical significance, surpassing the original criterion of a load factor above 0.5.

4.4 Pearson's correlation analysis

Table 9. Pearson correlation results between the variables of Manager's perception of E, S, G, ESG implementation, and ESG information disclosure at enterprises.

		D	I	E	G	S
Disclosure of ESG information at enterprises	Pearson correlation	1	.587**	-.058	.117**	-.079
	Sig. (2-tailed)		.000	.000	.000	.000
	N	197	197	197	197	197
Implementing ESG at enterprises	Pearson correlation	.587**	1	-.060	.340**	> 1
	Sig. (2-tailed)	.000		.000	.000	.000
	N	197	197	197	197	197
Manager's awareness about E	Pearson correlation	-.058	-.060	1	.265**	.406**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	197	197	197	197	197
Manager's awareness about G	Pearson correlation	.117**	.340**	.265**	1	.388**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	197	197	197	197	197
Manager's awareness about S	Pearson correlation	-.079	-.068	.406**	.388**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	197	197	197	197	197

Table 10. Pearson correlation results between the variable of Managers' perception of ESG information disclosure and the disclosure of ESG information at enterprises.

		D	I
ESG information disclosure	Pearson correlation	1	.630**
	Sig. (2-tailed)		.000
	N	197	197
Manager's awareness of ESG information disclosure	Pearson correlation	.630**	1
	Sig. (2-tailed)	.000	
	N	197	197

The above results reflect that all variables are correlated with dependent variables. Additionally, the negative correlation coefficients suggest that managers' perceptions of environmental (E) and social (S) aspects negatively affect ESG implementation and disclosure, contrary to the initial hypothesis.

4.5 Analyze the effect of intermediate variables

Table 11. Summary of results of analysis of the influence of intermediate variables.

Total impact of Managers' awareness of environmental on ESG information disclosure (c)				
	Effect	se	t	p
	.5951	.0243	17.0156	.0000
Direct impact of Managers' awareness of environmental on ESG information disclosure (c')				
	Effect	se	t	p
	.5552	.0256	10.4707	.0000
Indirect impact of Managers' awareness of environmental on ESG information disclosure (a*b)				
	Effect	BootSe	BootLLCI	BootULCI
Implement ESG	.0219	.0067	.0128	.0635
Total impact of Managers' awareness of society on ESG information disclosure (c)				
	Effect	se	t	p
	.5474	.0153	12.0762	.0000
Direct impact of Managers' awareness of society on ESG information disclosure (c')				
	Effect	se	t	p
	.5012	.0301	1.3742	.0002
Indirect impact of Managers' awareness of society on ESG information disclosure (a*b)				
	Effect	BootSe	BootLLCI	BootULCI
Implement ESG	.0179	.0028	.0098	.0576
Total impact of Managers' awareness of governance on ESG information disclosure (c)				
	Effect	se	t	p
	.6575	.0871	13.0147	.0000
Direct impact of Managers' awareness of governance on ESG information disclosure (c')				
	Effect	se	t	p
	.5293	.0450	1.763	.0000
Indirect impact of Managers' awareness of governance on ESG information disclosure (a*b)				
	Effect	BootSe	BootLLCI	BootULCI
Implement ESG	.0317	.0096	.0139	.0712

Through the impact index of $c' < c$ ($0.5552 < 0.5951$), with the confidence interval of bootstrap $a*b$ receiving values from 0.0128 to 0.0635 without a value of 0, it can be concluded that "ESG implementation" acts as an intermediate variable, having an indirect impact relationship from "Manager's awareness of the environment" to "ESG information disclosure." Similarly, the results of the two tables below also prove that ESG implementation acts as an intermediary in the relationship between managers' awareness of society and governance and ESG information disclosure at Vietnamese enterprises.

In which total impact (c) is "the impact of the independent variable on the dependent variable without the appearance of the intermediate variable - ESG implementation." Direct effect (c') is the impact of the independent variable on the dependent variable when there is an intermediate variable but not through the intermediate variable. Indirect effect ($a*b$) is the impact of the independent variable on the dependent variable through the intermediate variable.

4.6 Analyze the effect of moderating variables

Table 12. Summary of results of analysis of the effects of moderator variables.

Variable: A						
I. The effect of LD to the relationship between I and D						
Model						
	Coeff	se	t	P	LLCI	ULCI
Constant	1.3481	.0456	29.5606	.0000	1.3009	1.3953
I	.5117	.0222	23.0495	.0019	.4679	.5555
LD	-.0893	.0620	-1.4408	.0587	-.1565	.0879
Int_1	.0955	.0615	1.5533	.0152	.2099	.0327
Int_1: I x LD						
II. The effect of LD to the relationship between AD and D						
Model						
	Coeff	se	t	P	LLCI	ULCI
Constant	1.3472	.0617	21.8252	.0000	1.2959	1.3893
AD	1.2664	.0618	20.4892	.0018	1.1445	1.3883
LD	-.0123	.0679	-1.805	.0856	-.1462	.1217
Int_1	.1280	.1224	1.0457	.0169	.2078	.0923
Int_1: AD x LD						

The results indicate that the presence of a regulatory legal framework amplifies the effect of managers' awareness of ESG information disclosure on the actual disclosure of ESG information in Vietnamese enterprises.

4.7 Regression analysis

Table 13. Multivariate regression results of factors affecting the implementation of ESG at Vietnamese enterprises.

Element	Result	Compare with theories
Adjusted R-squared	.617	> 0.5
Sig value.	.000b	< 0.05
Durbin – Watson	1.903	$1 < 1.903 < 3$

All three indices align with theoretical expectations, confirming the validity of the linear model.

Table 14. Regression results of factors affecting ESG implementation at Vietnamese enterprises.

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.234	.175		1.337	.003		
	E	-.133	.103	-.049	-1.291	.017	.417	1.852
	S	-.158	.059	-.081	-2.677	.002	.530	1.998
	G	.173	.116	.105	1.647	.003	.516	1.936

a. Dependent Variable: ESG implementation at Vietnamese enterprises

As shown in the table above, all independent variables significantly affect the dependent variable (Sig. < 0.05). The VIF coefficient < 2 indicates that multicollinearity does not occur in the model. The negative beta coefficients

for the environmental (E) and social (S) variables suggest that managers' awareness of these aspects negatively influences ESG implementation in Vietnamese enterprises.

Equation: $I = -0.049 * E - 0.081 * S + 0.105 * G$ (1)

Table 15. Multivariate regression results of the impact of the legal framework on the relationship between ESG implementation and ESG information disclosure.

Element	Result	Compare with theories
Adjusted R-squared	.705	> 0.5
Sig value.	.000b	< 0.05
Durbin – Watson	2.104	1 < 2.104 < 3

Table 16. Regression results of the impact of the legal framework on the relationship between ESG implementation and ESG information disclosure.

Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics			
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF	
	(Constant)	.461	.264		1.745	.003		
1	I	.012	.022	.020	.553	.045	.939	1.007
	LD	.015	.062	.035	.241	.015	.897	1.108
	c.I.LD	.173	.061	.355	2.836	.000	.993	1.364

a. Dependent Variable: ESG information disclosure at Vietnamese enterprises

Equation: $D = 0.02 * I + 0.035 * LD + 0.335 * c.I.LD$ (2)

According to the equation, ESG implementation has a positive impact on ESG information disclosure at enterprises with a coefficient of 0.02. The level of this impact continues to increase (0.335) when there is regulation of the legal framework.

Table 17. Multivariate regression results of the impact of the legal framework on the relationship between managers' awareness of ESG information disclosure and ESG information disclosure.

Element	Result	Compare with theories
Adjusted R-squared	.685	> 0.5
Sig value.	.000b	< 0.05
Durbin – Watson	1.843	1 < 1.843 < 3

Table 18. Regression results of the impact of the legal framework on the relationship between manager's awareness of ESG information disclosure and ESG information disclosure.

Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics			
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF	
	(Constant)	.475	.159		2.982	.000		
1	AD	.127	.062	.182	2.048	.001	.986	1.014
	LD	.013	.068	.024	.1911	.007	.969	1.032
	c.AD.LD	.228	.162	.375	1.404	.011	.970	1.031

a. Dependent Variable: ESG information disclosure at Vietnamese enterprises

Equation: $D = 0.182 * AD + 0.024 * LD + 0.375 * c.AD.LD$ (3)

The equation shows that a manager's awareness of ESG disclosure has a positive impact on ESG disclosure. Along with that, under the regulation of the legal framework, the level of impact of managers' awareness of ESG information disclosure on ESG information disclosure at enterprises increased sharply from 0.182 to 0.375.

5. CONCLUSIONS AND RECOMMENDATIONS

From the results of the standardized regression model, the author draws the following conclusions: First, for the perception of managers about the three aspects of environment, society, and governance, only the perception of managers about the governance aspects has the same impact on the implementation and disclosure of ESG information at enterprises (by the hypothesis given, in line with PwC's report, 2022 - when the governance aspect is the most prioritized by Vietnamese enterprises in committing and implementing). The remaining two aspects

have a negative impact on ESG implementation and disclosure of ESG information at enterprises (contrary to the hypothesis, this result is also similar to the research of Le Thi Kim Nhung et al., 2023; Bruno et al., 2021. But in contrast to the study of Yafei Tan et al., 2022; Zumenta et al., 2021). Explain this contradiction due to the research subjects being surveyed in different countries with varying perceptions, cultures, and legal systems.

Next, the study also shows that ESG implementation plays a mediating role in the relationship between managers' perception of the three aspects, E, S, and G, and ESG information disclosure at the enterprise. This is a new finding of study as no studies have shown this relationship. The results of the intermediate variable analysis show that managers' perception of E, S, and G has an impact on ESG implementation, and the implementation of ESG has an impact on ESG information disclosure. Besides, a manager's perception of information disclosure has a positive impact on information disclosure, coinciding with previous studies by Alhawaj (2022) in countries such as China, Germany, and the US.

Although the results show that managers' perceptions of the two aspects, E and S, have a negative impact on the implementation and ESG information disclosure, managers' awareness of ESG information disclosure has a positive impact on ESG information disclosure. The explanation for this is that ESG is still very new to Vietnamese businesses today; only large enterprises and corporations are applying ESG in their businesses (the most prominent is Vinamilk). Even listed enterprises are required to disclose ESG information, but they do not really understand and be transparent in implementation and disclosure. Meanwhile, other businesses are just starting to learn about ESG or are still looking for a way for their businesses to apply ESG (PwC, 2022). In addition, because the top priority of managers in most Vietnamese enterprises today is only interested in maximizing profits, but investing in society and the environment will be costly, affecting the overall cash flow of businesses (Maria et al., 2023), they are avoiding implementation, thereby negatively affecting the disclosure of ESG information. However, when managers are aware of the benefits of ESG information disclosure for businesses, they tend to disclose more ESG information. This highlights the limited understanding of ESG among managers, who tend to view its implementation and reporting as financially burdensome without fully recognizing the potential benefits ESG can bring to their businesses.

In addition, studies in countries such as the EU, the US, and India indicate that when there is an influence from the legal framework, the awareness of decision-makers regarding information disclosure significantly increases. Buallay et al. (2023) affirm that government regulations play an important role in the disclosure of ESG information. Krueger et al. (2023) also found that ESG disclosure would improve threefold when required by law. According to regression equation (3), ESG implementation has a positive impact on ESG information disclosure, and with the participation of the Legal Framework, this impact is even more markedly improved (Arif et al., 2022). Research by Al Amosh and Khatib (2022) has also shown that the absence of laws that mandate the disclosure of ESG information will reveal the gap between what businesses do and what is disclosed by businesses. Thus, the legal framework has a positive influence on the relationship between the variables of managers' perception of ESG information disclosure, the implementation of ESG, and the disclosure of ESG information of enterprises.

In conclusion, beyond the perceptions of managers and the implementation of ESG by enterprises, the legal framework plays an indispensable role in promoting the disclosure of ESG information by Vietnamese companies because this is something that every enterprise must pay attention to in order to comply with the law.

		34.5%	21.8%	25.4%	18.3%	37.1%	34.5%	10.7%	17.8%
		PE/FB	FDI E	LE	S-O E	<10	10 - 100	100 - 200	> 200
		Type of business				Revenue (billion VND)			
58.4%	ESG information has not been disclosed	56.5%	14.8%	-	28.7%	52.2%	38.3%	7.8%	1.7%
34.0%	Publication of some criteria for E, S or G	4.5%	34.3%	56.7%	4.5%	13.4%	19.4%	35.8%	31.3%
7.6%	Comprehensive disclosure covering all aspects E, S and G	-	20.0%	80.0%	-	-	-	20.0%	80.0%

In which: PE: Private enterprise
FE: Family enterprise
FDI E: FDI enterprise
LE: Listed enterprise
S-O E: State-owned enterprise

Fig. 1. The current situation of ESG information disclosure at Vietnamese enterprises.

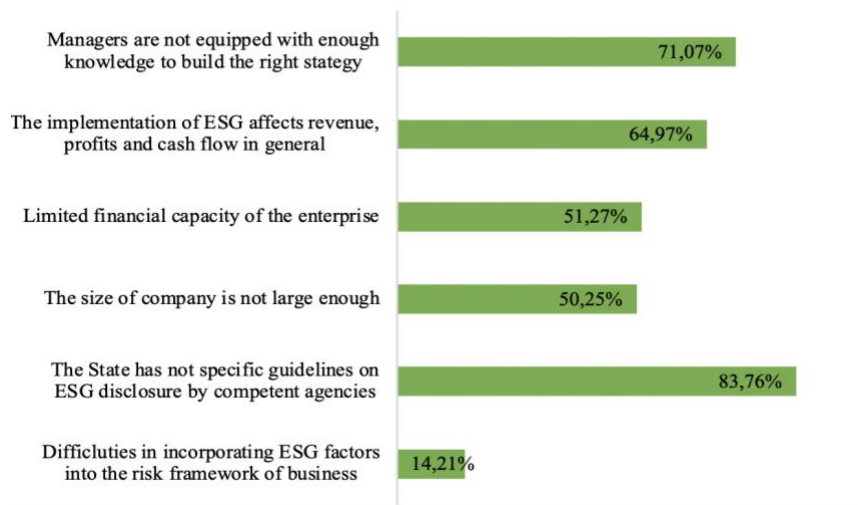


Fig. 2. Summarizing the barriers of Vietnamese enterprises when pursuing the ESG roadmap.

From the above practices, to accelerate the process of applying ESG at enterprises. Enterprises should actively promote the importance and role of ESG within their organizations, ensuring that all employees understand and update their awareness of ESG, thereby reinforcing its image within the company. Secondly, businesses must proactively raise awareness about ESG practices and disclosures, particularly regarding environmental issues like climate change and CSR. They should regularly update ESG information and comply with government regulations, regularly discuss and listen to the recommendations of experts in the industry, and share experiences and knowledge of enterprises that have succeeded in applying ESG. In addition, enterprises need to develop long-term strategies that suit their enterprises and provide internal training for officials and employees to ensure both professionalism and ethics.

To encourage enterprises to apply ESG, it is necessary to have positive dialogues between the government and enterprises to remove obstacles, provide more transparent guidelines, and provide more detailed roadmaps, as well as develop clear policies and processes to support businesses in integrating ESG into their business operations. Furthermore, to encourage active participation, the government should introduce policies to support enterprises, such as financial assistance and corporate income tax reductions... then it is essential to introduce specific regulations governing the implementation, preparation, and presentation of ESG reports or elements of the ESG framework, applicable to all enterprises nationwide. This information should be audited, similar to financial statements, to ensure transparency and encourage enterprises to take ESG implementation seriously, holding them accountable for the accuracy of their disclosures. For acts that are contrary to regulations and cause damage to the environment and society, strict handling measures are necessary.

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APPENDIX

Based on reference research models, the independent and dependent variables were measured using a 5-point Likert scale (1 = not at all influential to 5 = very influential). The scale of variables is shown in the following table:

Table 19. Factors affecting ESG implementation at enterprises.

Factor	Sign	Describe	Reference
Manager's awareness of environmental responsibility (E)	E1	Businesses need to be responsible for protecting the environment	Le Thi Kim Nhung et al (2023), Nguyen Thi Thu Hang et al (2023), Yafei Tan and Zhaohui (2022) Gali et al (2016),...
	E2	Businesses need to reduce consumption of natural resources	
	E3	Businesses need to apply waste treatment and control measures to minimize environmental pollution	
	E4	Businesses need to recycle waste products and raw materials	
	E5	Businesses need to commit and participate in environmental certifications	
	E6	Businesses need to exploit renewable energy sources	
Manager's awareness of social responsibility (S)	S1	Businesses need to carry out charity work	Le Thi Kim Nhung et al (2023), Arayssi et al (2020), Garas et al (2018), Lo and Kwan (2017), Al-Hadi et al (2018), Clark et al (2015), Friede et al (2015), Eccles et al (2014), ...
	S2	Businesses need to protect the privacy and security of customer information	
	S3	Businesses need to implement equal rights between male and female employees	
	S4	Businesses need to improve employee working conditions	
	S5	Enterprises do not use underage workers	
	S6	Businesses need to improve employee welfare	
Manager's awareness of management aspects (G)	G1	Implementing ESG will help businesses manage social responsibility costs effectively	Le Thi Kim Nhung et al (2023), Arayssi et al (2020); Garas et al (2018), Lo and Kwan (2017), Al-Hadi et al (2018), Clark et al (2015), Friede et al (2015), Eccles et al (2014), ...
	G2	Implementing ESG brings sustainable business performance	
	G3	Implementing ESG helps businesses connect with the community/society, helping businesses promote their image widely to many customers	
	G4	Implementing ESG will help businesses manage risk better	
	G5	Implementing ESG will help businesses effectively allocate their resources	
	G6	Enterprises need to apply an internal control system to ensure the rights of employees and prevent bribery and corruption	

Source: Author compiled from previous studies

Table 19. Factors affecting ESG information disclosure.

Factor	Sign	Describe	Reference
Manager's awareness affects the disclosure of ESG information at Vietnamese enterprises (AD)	AD1	ESG disclosure will help businesses maintain and develop their reputation and brand	Alhawaj (2023), PwC Report (2022), Sisaye (2022), Araissi et al (2018), Zumente and Lace (2021), Gallo and Christensen (2011)...
	AD2	ESG disclosure will help businesses attract talent	
	AD3	ESG disclosure will help businesses maintain competitive advantage	
	AD4	ESG disclosure makes it easier for businesses to mobilize investment capital	
	AD5	ESG disclosure helps enhance the image of businesses before partners such as the State, investors, and customers	
	AD6	ESG disclosure because of pressure from shareholders and investors	
Legal framework affecting ESG disclosure at Vietnamese enterprises (LD)	LD1	Vietnam's Enterprise Law and Securities Law stipulate that businesses must disclose ESG information	Securities Law, Enterprise Law, Circular 96/2020, Decree 87/2017, TCVH-ISO14000, Maria et al. (2023), Buallay et al. (2023); PwC Report (2022)...
	LD2	Decree 87/2017 and Circular 96/2020 stipulate that businesses must disclose ESG information	
	LD3	According to Vietnamese and international standards TCVN-ISO14000, businesses must disclose environmental information	

Source: Author compiled from previous studies