



ISSN: 2586-6036

JWMAAP website: <http://accesson.kr/jwmap>doi: <http://dx.doi.org/10.13106/jwmap.2024.Vol7.no4.75>

The Impact of Enhancing Employees' Innovation Behavior through Coaching Leadership on SMEs' ESG Performance

Eun-Suk LEE¹, Bum-Suk LEE², Young-Hun Kim³

1. First Author Department of Coaching Sciences, Student, Kyung Hee University Graduate School of Business, Korea. Email: juk0000@nate.com

2 Corresponding Author Department of Coaching Sciences, Adjunct Professor, Kyung Hee University Graduate School of Business, Korea. Email: bibledrama@naver.com

3. Second author Department of Coaching Sciences, Adjunct Professor, Kyung Hee University Graduate School of Business, Korea. Email: younghkim9034@daum.net

Received: October 03, 2024. Revised: October 22, 2024. Accepted: October 22, 2024.

Abstract

The purpose of this study was to investigate the impact of coaching leadership on ESG management performance through employee innovation behavior in the context of SMEs. Amid the lack of ESG-related research on SMEs, this study is significant in that it empirically verified that coaching leadership can contribute to the improvement of ESG performance of SMEs by inducing innovative behavior of employees. For the study, a survey was conducted on 244 employees of domestic SMEs.

As a result of the study, it was found that coaching leadership partially had a positive (+) effect on ESG performance. Specifically, direction suggestion and competency development had a positive effect on the environment, social responsibility, and governance structure of ESG performance, but the relationship with performance evaluation did not have a significant effect. In addition, the direction of coaching leadership and competency development had a positive effect on innovation behavior, but performance evaluation was not significant. Innovative behavior had a significant positive (+) effect on all aspects of ESG performance (environment, social responsibility, and governance), and showed a significant mediating effect in the relationship between coaching leadership and ESG performance. This suggests that innovative behavior plays an important role in mediating the relationship between the sub-factors of coaching leadership and ESG performance.

The theoretical significance of this study is to support the innovation behavior of members through coaching leadership in the SME field and to identify a path to increase ESG performance as a result. In addition, most previous studies on the relationship between ESG and innovation behavior have shown that innovation behavior is promoted by the influence of ESG, but this study confirmed that innovation behavior of SME members is an important factor in improving ESG performance. These results provided practical and policy implications for promoting ESG performance by leading the use of coaching leadership and innovation behavior in the SME field.

Keywords : Coaching Leadership, ESG Performance, Innovation behavior

JEL Classification Code :

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1. Introduction

Recently, global investors' interest has expanded to include Environmental, Social, and Governance (ESG) factors, climate change, and social values, prompting companies and academia to focus on stakeholder capitalism. ESG aims for the harmonious coexistence of humanity and nature and has emerged as a key framework for corporate sustainable growth and an essential element of competitive strategies (Galbreath, 2013; Korea Corporate Governance Service [KCGS], 2024). Consequently, companies must recognize that an era has arrived where long-term survival and development are challenging if they pursue only short-term profit maximization.

As the importance of environmental, social, and governance issues has come to the fore, global concerns such as food crises, raw material supply and demand, trade friction, religious/ethnic conflicts, social instability, and climate change have formed the backdrop for the ESG concept. Companies are also seeking a management paradigm shift that focuses on non-financial ESG performance, such as fulfilling social responsibilities, protecting the environment, and improving governance, moving away from financial performance centered on shareholder value return. ESG, a concept derived from innovative behavior, is recognized as an investment indicator that evaluates a company's long-term value through innovation, while ESG management is closer to temporarily enhancing image for short-term performance improvement. If ESG factors are neglected in corporate management, not only may corporate value be damaged, but survival itself may be threatened. Therefore, from a long-term perspective, companies are putting more effort into ESG than other organizations.

In South Korea, ESG disclosure will be mandatory for large, listed companies from 2025 and for all listed companies by 2030 (Korea Exchange, 2021). Faced with these environmental changes, small and medium-sized enterprises (SMEs) that are suppliers to large corporations are encountering practical difficulties in implementing ESG. However, research on the specific relationship between leadership and ESG performance in the context of SMEs is very limited (Yoon et al., 2023). While existing studies have focused on organizational innovation through ESG, there has been a lack of exploration into the possibility of enhancing ESG performance through employees' innovative behavior.

According to the "Responsible Innovation Theory," companies and organizations can pursue sustainable development through innovation and develop environmental and social values alongside economic values (Hellström, 2003). Therefore, this study aimed to

explore whether coaching leadership, which has recently gained attention as a potential solution to the practical challenges of ESG implementation in SMEs, can contribute to the establishment of ESG in SMEs by enhancing employees' innovative behavior.

2. Theoretical Background

2.1. Coaching Leadership

Coaching leadership has been shown to reinforce constructive deviations that are described as vocal behaviors (Wang et al., 2017), defined as employees' willingness to offer opinions on how to improve organizations, members, or both, and voluntary behaviors of employees that violate important norms with the goal of improving the welfare of their organizations, members, or both. In addition, coaching leadership is positively related to employees' perceptions of fairness in performance evaluation (Dello Russo et al., 2017), objective and subjective career success (Peng et al., 2019), and work performance (Tanskanen et al., 2018).

Given these findings, coaching leadership seems likely to act as an important source of organizational support, especially in encouraging employee utilization of strengths in the workplace. Starting to utilize one's strengths in the workplace is often a process of change and learning, and coaching leadership effectively facilitates this. In addition, team support for utilizing strengths in the workplace is related to employees' willingness to improve organizational practices (non-issuance-Samarzc et al., 2018), and results similar to coaching leadership such as voice behavior and constructive deviations.

Coaching leadership enables employees to experiment and innovate by creating an environment that is not bound by strict norms. Freedom to explore these new approaches is critical to laying the groundwork for sustainable growth in a complex and competitive modern business environment. Coaching leadership encourages employees to take advantage of their strengths and engage in constructive deviations, enabling organizations to adapt and succeed, ensuring long-term success (Greene & Grant, 2003; Zhang, 2020).

2.2. Innovative Behavior

In a rapidly changing global environment, innovative behavior from organizational members is indispensable for securing sustainable competitive advantage (Bani-Melhem et al., 2018). Innovation refers to the process of embodying useful creative ideas into new products, processes, and services (Amabile, 1988). Innovative behavior is defined as

an intentional act by an individual to discover problems, present new solutions, and implement them to improve work and organizational performance (West & Farr, 1989). Recently, the concept of innovation has expanded beyond new products or services to encompass the values and interrelationships of society members (Lin & Chen, 2016), with the importance of innovation and social relevance continuously increasing.

The impact of innovative behavior by organizations and their members on corporate performance has been demonstrated in numerous previous studies. For instance, Lee et al. (2019) argued that organizational innovative behavior improves corporate efficiency and performance, increases job satisfaction, enhances labor productivity, and contributes to the formation of intangible assets. Arranz et al. (2019) also emphasized the positive effect of innovation on corporate performance.

Recent studies have highlighted the importance of responsible innovation for the sustainable development of companies (Hellström, 2003). This underscores the significance of fostering responsible innovative behaviors and exercising responsible leadership in organizations where human resource voluntariness and flexibility are essential, such as SMEs. This is directly linked to innovation, which is a crucial factor for long-term organizational success.

2.3. ESG Performance

ESG performance serves the function of creating corporate value. Improving ESG performance in listed companies contributes to enhancing corporate value by reducing financing costs, improving operational efficiency, and increasing innovation investment (Yang et al., 2023). Notably, high ESG performance of listed companies was found to positively affect corporate value enhancement even during the pandemic period. When companies actively improve their ESG performance, it leads to reduced corporate risk, improved sustainability, and recognition from the government and stakeholders, ultimately resulting in improved corporate performance (Yoon et al., 2023).

3. Research Methods and Materials

This study aimed to examine the impact of coaching leadership on ESG performance through the mediation of innovative behavior among employees of South Korean SMEs. To investigate the effects of corporate ESG management activities and verify their relationship with ESG performance, we derived the research model shown in Figure 1.

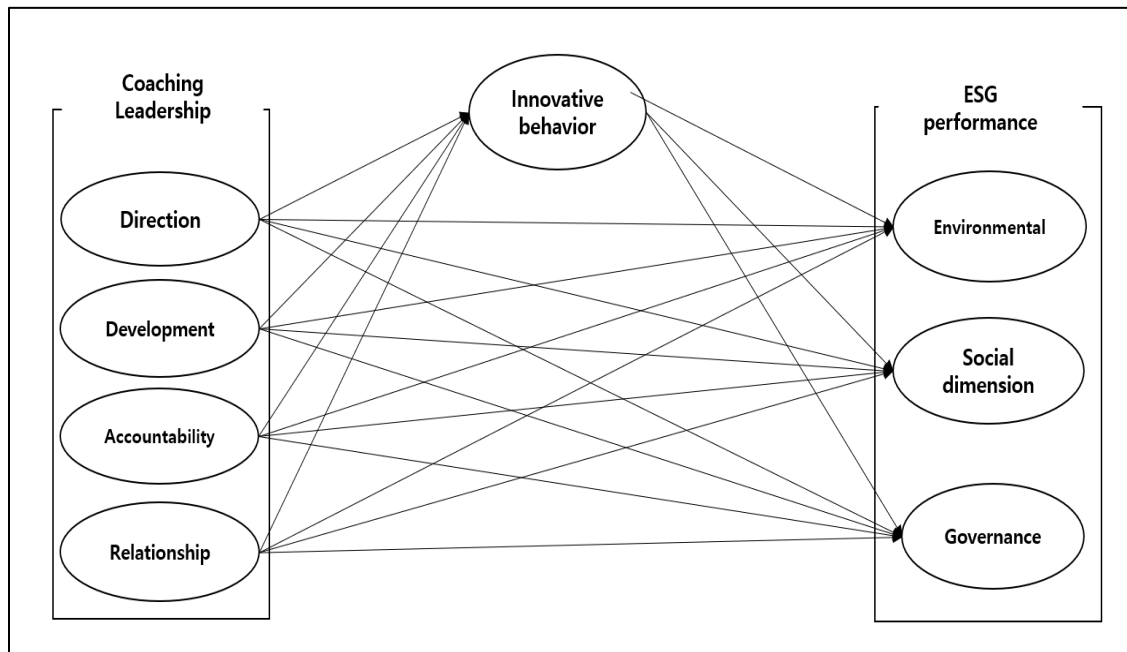


Figure 1: Research Model

3.1. Research Hypothesis

3.1.1. Relationship between coaching leadership and ESG performance

The importance of coaching leadership in supporting employees to solve problems independently and improve ESG performance has been highlighted due to rapid changes, complexity, uncertainty, and ambiguity in organizational environments (Stowell, 1987). Coaching leadership is an organizational process that guides employees to autonomously address various issues they encounter when performing new tasks (Redshaw, 2000) and is a key leadership behavior for improving organizational culture, enhancing ESG performance, and achieving goals (Ellinger, 2003).

According to social cognitive theory, human behavior is influenced more by perceptions of the environment than by the environment itself. Employee perception is a crucial variable in coaching leadership, as their behavior is determined by how they perceive internal and external organizational aspects (Boss & Angermeier, 2011). Previous studies have shown that coaching leadership not only affects employees' psychological states, such as motivation, inspiration, and guidance (Heslin et al., 2005), and psychological well-being (Green et al., 2006), but also plays a significant role in organizational performance, including creative behavior (Ha & Tak, 2012) and innovative behavior (Kwon, 2015). Recently, corporate innovation has expanded into social innovation businesses that connect social and environmental issues with business operations. Social innovation business refers to enterprises that create positive change and innovation (Jeon & Kim, 2013). Coaching leadership in SMEs has been found to have a significant effect on ESG (Yoon et al., 2023).

Based on these findings, the following research hypotheses were established:

H1: Coaching leadership will have a positive (+) effect on ESG performance (environment).

H2: Coaching leadership will have a positive (+) effect on ESG performance (social responsibility).

H3: Coaching leadership will have a positive (+) effect on ESG performance (governance).

3.1.2. Relationship between coaching leadership and innovation behavior

Coaching leadership has been shown to promote innovative behavior among organizational members (Seo et al., 2020; Nam, 2019; Park & Tak, 2022; Min, 2023; Lee & Tak, 2023; Cho, 2024; Kim, 2022; Kim & Cho, 2023; Kim & Oh, 2023). Specifically, the sub-factors of direction

suggestion and relationship in coaching leadership were reported to have a direct positive effect on employees' innovative behavior (Min, 2023; Cho, 2024). When leaders present clear direction and form positive relationships with employees, the latter are more likely to actively promote and implement innovative ideas (Min, 2023; Cho, 2024). Additionally, coaching leadership was found to indirectly promote innovative behavior by increasing employees' positive psychological capital, such as resilience and optimism (Cho, 2024; Nam, 2019).

However, the competency development and performance evaluation factors of coaching leadership were reported to have either no direct effect on innovative behavior (Min, 2023; Cho, 2024) or inconsistent influences (Kim, 2022). This may be due to the potential of these factors to limit employee autonomy and voluntariness (Min, 2023).

Moreover, mediating variables such as employees' digital literacy capabilities (Kim & Oh, 2023) and positive feedback and creative self-efficacy (Seo et al., 2020) were found to play important roles in translating coaching leadership into innovative behavior. This indicates that various mechanisms are at work in the process of coaching leadership promoting employees' innovative behavior.

Based on these previous studies, the following hypothesis was established:

H4: Coaching leadership will have a positive (+) effect on innovative behavior.

3.1.3. Relationship between innovation behavior and ESG performance

Previous studies have primarily focused on how ESG awareness promotes innovative behavior (Park, 2023; Mohammad & Wasiuzzaman, 2021). However, it is necessary to consider the reverse relationship, where innovative behavior leads to improved ESG performance. This is particularly relevant for SMEs, where ESG performance is often realized through the innovative behavior of all employees, including managers, given that many SMEs struggle to implement ESG practices compared to larger companies that have already adopted ESG management (Yoon et al., 2023). Leadership and corporate culture that encourage innovation can inspire employees' innovative behavior (Janssen et al., 2004), which can, in turn, be linked to improved ESG performance.

According to innovative behavior theory, employees go through stages of creating, promoting, and realizing new ideas. Additionally, Experiential Learning Theory (Kolb, 1984) explains the cycle through which individuals learn from experience and change their behavior.

Collectively, employees' innovative behavior provides direct experience in sustainable management, which can

lead to improved ESG performance. Innovative actions may precede ESG realization, suggesting a mutual impact relationship between the two. It is necessary to address the limitations of existing studies that only consider the one-way impact from ESG to innovative behavior. Accordingly, the following hypothesis was established:

H5: Innovative behavior will have a positive (+) effect on ESG performance.

3.2. Data Collection and Analysis Methods

In order to reduce errors in the study for 5 days from June 21 to June 25, 2024, 50 copies of the questionnaire were collected, and the questionnaire was revised after analyzing it. In order to collect the data for this survey, a questionnaire survey was conducted through face-to-face surveys and distribution of 350 office workers working for domestic SMEs for 7 weeks from July 18 to July 29, 2024, and 376 copies of a self-report questionnaire were distributed. 350 copies of valid data were used for empirical analysis, excluding unfaithful responses. This study empirically analyzed the effect of coaching leadership on ESG performance through innovative behavior. SPSS 25.0 and AMOS 22.0 were used for data analysis. First, frequency analysis was performed to understand the demographic characteristics of respondents, and confirmatory factor analysis and Cronbach's α were calculated to review the reliability and validity of the measurement tool. Through descriptive statistical analysis, the level and distribution of the research variable were confirmed, and the correlation coefficient r value of Pearson's moment correlation coefficient was calculated to examine the correlation between the measurement variables.

Multilinear regression analysis was conducted to verify the established hypothesis, and the fourth model of SPSS Process macro v.3.3 was applied to determine whether innovative behavior mediates the impact of coaching leadership on ESG performance, and the significance of indirect effects was examined through bootstrapping results.

4. Empirical Analysis and Research Results

4.1. General Characteristics of Survey Subjects

Of the 350 valid responses, 56.57% ($n = 198$) were male. Age distribution was evenly split between 30s and 40s (28% each), with 20.90% aged 50 or above. Educational attainment was predominantly at the four-year university level (30.57%), followed by two- to three-year college graduates (27.71%). The most common work experience range was 10-15 years (25.71%), and the largest occupational category was managerial level or above (29.10%). Regarding organizational size, 24.80% of respondents worked in companies with 50 or fewer employees.

4.2. Tertiary and Reliability Tests

Confirmatory factor analysis was conducted to assess the construct validity of the measurement instruments, while Cronbach's alpha coefficients were calculated to evaluate internal consistency reliability. The results of the measurement model evaluation based on the confirmatory factor analysis are presented in Table 1.

Table 1: Confirmatory factor analysis and reliability verification results of floor tools

Factors	Items	B	β	S.E.	t	P	α	CR	
Direction	Direction1	1	0.897						
	Direction2	1.027	0.9	0.041	25.106	***			
	Direction3	0.946	0.841	0.043	21.766	***	0.909	0.911	
	Direction4	0.9	0.816	0.044	20.523	***			
	Direction5	0.671	0.627	0.05	13.431	***			
Coaching leadership	Accountability	Accountability1	1	0.779					
		Accountability2	0.841	0.672	0.067	12.464	***		
		Accountability3	0.877	0.725	0.065	13.56	***	0.823	0.826
		Accountability4	0.981	0.817	0.064	15.406	***		
		Accountability5	0.5	0.474	0.059	8.538	***		

Development	Development1	1	0.685					
	Development2	0.681	0.593	0.098	14.912	***		
	Development3	1.172	0.843	0.1	11.69	***	0.689	0.832
	Development4	0.775	0.649	0.099	15.812	***		
	Development5	0.811	0.747	0.083	17.356	***		
Relationship	Relationship1	1	0.794					
	Relationship2	0.943	0.782	0.06	15.669	***		
	Relationship3	0.918	0.689	0.068	13.417	***		
	Relationship4	0.908	0.695	0.067	13.562	***	0.886	0.888
	Relationship5	1.036	0.777	0.067	15.547	***		
	Relationship6	0.911	0.68	0.069	13.226	***		
	Relationship7	0.978	0.678	0.074	13.168	***		
Innovation behavior	Innovation behavior1	1	0.883					
	Innovation behavior2	0.916	0.81	0.046	19.808	***		
	Innovation behavior3	0.997	0.891	0.042	23.834	***	0.899	0.915
	Innovation behavior4	0.979	0.83	0.047	20.75	***		
	Innovation behavior5	0.995	0.853	0.046	21.838	***		
	Innovation behavior6	0.552	0.496	0.059	11.596	***		
Environment	Environment1	1	0.832					
	Environment2	0.959	0.783	0.055	17.315	***		
	Environment3	1.078	0.916	0.048	22.233	***	0.905	0.911
	Environment4	0.6	0.497	0.062	9.661	***		
	Environment5	0.987	0.854	0.05	19.795	***		
	Environment6	0.93	0.837	0.048	19.17	***		
ESG Performance	Social responsibility1	1	0.709					
	Social responsibility2	1.001	0.766	0.075	13.295	***		
	Social responsibility3	1.029	0.772	0.077	13.399	***	0.858	0.859
	Social responsibility4	0.831	0.583	0.081	10.21	***		
	Social responsibility5	0.854	0.687	0.071	11.987	***		
	Social responsibility6	1.006	0.736	0.079	12.798	***		
Governance	Governance1	1	0.893				0.841	0.948

Governance2	1.033	0.886	0.041	24.97	***
Governance3	0.961	0.837	0.044	22.021	***
Governance4	1.126	0.944	0.039	29.246	***
Governance5	1.125	0.907	0.043	26.422	***
Governance6	0.872	0.721	0.056	15.734	***

As a result of confirmatory factor analysis performed in this study, the complex reliability was 0.7 or more and the average variance extraction value was 0.5 or more, so it was

judged that the convergence validity was sufficiently secured. The results of the convergence validity verification are shown in <Table 2>.

Table 2: Measurement Tool Convergence Validation Results

		CR	AVE
Criterion		≥ 0.7	≥ 0.5
Value	Direction	0.911	0.676
	Accountability	0.826	0.495
	Development	0.832	0.502
	Relationship	0.888	0.532
	Innovation behavior	0.915	0.649
	Environment	0.911	0.637
	Social responsibility	0.859	0.506
	Governance	0.948	0.753

Correlation analysis was performed to evaluate the discriminant validity of the scale. In this process, it was confirmed that the average variance extraction value (AVE) should be larger than the squared correlation between each

variable. As shown in <Table 3>, the discriminant validity is sufficiently secured as the average variance extraction value in all variables exceeds the correlator multiplier.

Table 3: Discriminant validity verification results (correlation coefficient verification method)

		Direction	Accountability	Development	Relationship	Innovation behavior	Environment	Social responsibility	Governance
Coaching Leadership	Direction	-0.676	0.322	0.157	0.279	0.203	0.196	0.184	0.151

	Accountability	.576**	-0.502	0.208	0.136	0.18	0.128	0.214	0.111
	Development	.396**	.456**	-0.5	0.227	0.074	0.082	0.111	0.043
	Relationship	.528**	.369**	.476**	-0.53	0.11	0.112	0.091	0.138
Innovation behavior		.451**	.424**	.277**	.332**	-0.65	0.161	0.179	0.188
ESG Performance	Environment	.443**	.358**	.287**	.334**	.402**	-0.64	0.497	0.127
	Social responsibility	.429**	.463**	.333**	.301**	.424**	.705**	-0.51	0.163
	Governance	.388**	.333**	.207**	.371**	.434**	.356**	.404**	-0.75

Note 1. ** Correlation is significant at the 0.01 level (2-tailed)

Note 2. Diagonal coefficients represent the AVE (Average Variance Extracted) values of constructs. Below the diagonal are correlations between constructs, and above the diagonal are squared correlations between constructs.

4.3. Correlation Analysis

Correlation analysis was conducted to determine the correlation between the sub-factors of coaching leadership,

a variable of this study, sub-factors of ESG performance, innovation behavior, organizational performance, and their sub-factors, and the results are shown in Table 4 below.

Table 4: Correlation Analysis

		Direction	Accountability	Development	Relationship	Innovation behavior	Environment	Social responsibility	Governance
Coaching Leadership	Direction	1							
	Accountability	.576**	1						
	Development	.396**	.456**	1					
	Relationship	.528**	.369**	.476**	1				
Innovation behavior		.451**	.424**	.277**	.332**	1			
ESG Performance	Environment	.443**	.358**	.287**	.334**	.402**	1		
	Social responsibility	.429**	.463**	.333**	.301**	.424**	.705**	1	
	Governance	.388**	.333**	.207**	.371**	.434**	.356**	.404**	1

Note: 1. *p<.05, **p<.01, ***p<.001

4.4. Hypothesis Verification

4.4.1. Relationship between corporate coaching leadership and ESG performance

As a result of analyzing the impact of coaching leadership on ESG performance, the impact of coaching leadership on the environment of ESG performance was

significant as $R^2=.476$, $F=25.262$, and $p<.000$. Direction suggestion ($\beta=.292$, $p<.001$) and performance evaluation ($\beta=.120$, $p<.05$) had a significant effect, but competency development ($\beta=.068$, $p>.05$) and relationship ($\beta=.103$, $p>.05$) were not significant.

Table 5: Analysis of the Impact of Coaching Leadership on the Environment of ESG Performance

Variable	Unstandardized Coefficient		Standardized Coefficient	t	p	Collinearity Statistics	
	B	SE	β			TOL	VIF
(Accountability)	0.7	0.278		2.514	0.012		
Direction	0.29	0.063	0.292	4.592	0	0.553	1.809
Accountability	0.12	0.059	0.12	1.979	0.049	0.607	1.648
Development	0.08	0.068	0.068	1.177	0.24	0.682	1.467
Relationship	0.11	0.062	0.103	1.744	0.082	0.637	1.57
<i>F(p)</i>					25.262***		
adj. R^2					.218		
Durbin-Watson					1.678		

* $p<.05$, ** $p<.01$, *** $p<.001$

The effect of coaching leadership on the social responsibility of ESG performance was significant as $R^2=.515$, $F=31.154$, and $p<.000$. Direction suggestion ($\beta=.203$, $p<.01$) and performance evaluation ($\beta=.285$,

$p<.001$) had a significant effect, but the relationship with competency development ($\beta=.104$, $p>.05$) was not significant.

Table 6: Analysis of the Impact of Coaching Leadership on the Social Responsibility of ESG Performance

Variable	Unstandardized Coefficient		Standardized Coefficient	t	p	Collinearity Statistics	
	B	SE	β			TOL	VIF
(Accountability)	0.852	0.255		3.340	0.001		
Direction	0.190	0.058	0.203	3.273	0.001	0.553	1.809
Accountability	0.262	0.055	0.285	4.804	0.000	0.607	1.648
Development	0.116	0.063	0.104	1.855	0.064	0.682	1.467
Relationship	0.039	0.057	0.039	0.682	0.495	0.637	1.570
<i>F(p)</i>					31.154***		
adj. R^2					.257		
Durbin-Watson					1.857		

* $p<.05$, ** $p<.01$, *** $p<.001$

The effect of coaching leadership on the governance structure of ESG performance was significant as $R^2=.452$, $F=22.175$, and $p<.000$. Direction suggestion ($\beta=.192$, $p<.01$), performance evaluation ($\beta=.160$, $p<.01$), and

relationship ($\beta=.237$, $p<.001$) had a significant effect, but competency development ($\beta=-.055$, $p>.05$) was not.

Table 7: Analysis of the Impact of Coaching Leadership on ESG Performance Governance

Variable	Unstandardized Coefficient		Standardized Coefficient	t	p	Collinearity Statistics	
	B	SE	β			TOL	VIF
(Accountability)	0.852	0.255		3.340	0.001		
Direction	0.190	0.058	0.203	3.273	0.001	0.553	1.809

Accountability	0.262	0.055	0.285	4.804	0.000	0.607	1.648
Development	0.116	0.063	0.104	1.855	0.064	0.682	1.467
Relationship	0.039	0.057	0.039	0.682	0.495	0.637	1.570
<i>F(p)</i>	22.175***						
adj. <i>R</i> ²	.195						
Durbin-Watson	1.955						

*p<.05, **p<.01, ***p<.001

4.4.2. Relationship between corporate coaching leadership and innovation behavior

The impact of H coaching leadership on innovative behavior was significant as $R^2=.502$, $F=25.262$, and $p<.000$.

Direction suggestion ($\beta=.256$, $p<.001$) and performance evaluation ($\beta=.228$, $p<.001$) had a significant effect, but competency development ($\beta=.022$, $p>.05$) and relationship ($\beta=.102$, $p>.05$) were not significant.

Table 8: Analysis of the Impact of Innovative Behavior on ESG Performance (Environment)

Variable	Unstandardized Coefficient)		Standardized Coefficient	t	p	Collinearity Statistics	
	B	SE	β			TOL	VIF
(Accountability) ESG Performance (Environment)	1.512	.183		8.247	0.000		
	.400	.049	.402	8.192	0.000	1.000	1.000
<i>F(p)</i>	67.114***						
adj. <i>R</i> ²	.159						
Durbin-Watson	1.792						

*p<.05, **p<.01, ***p<.001

4.4.3. Relationship between a firm's innovation behavior and ESG performance

The results of analyzing the impact of innovation behavior on ESG performance are as follows. First, as a result of analyzing the impact of innovation behavior on

environmental factors of ESG performance, the explanatory power of the regression model was found to be $R^2=.163$, $F=67.247$, $p<.000$, and the path coefficient of innovation behavior was $\beta=.402$, $t=8.192$, and $p<.001$, which had a significant effect.

Table 9: Analysis of the Impact of Innovative Behavior on ESG Performance (Environment)

Variable	Unstandardized Coefficient)		Standardized Coefficient	t	p	Collinearity Statistics	
	B	SE	β			TOL	VIF
(Accountability) ESG Performance (Environment)	1.512	.183		8.247	0.000		
	.400	.049	.402	8.192	0.000	1.000	1.000
<i>F(p)</i>	67.114***						
adj. <i>R</i> ²	.159						
Durbin-Watson	1.792						

*p<.05, **p<.01, ***p<.001

Next, as a result of analyzing the impact of innovation behavior on the social responsibility of ESG performance, the explanatory power of the regression model was $R^2=.180$, $F=76.347$, and $p<.000$, and the path coefficient of

innovation behavior was significantly affected by $\beta=.424$, $t=8.738$, and $p<.001$.

Table 10: Analysis of the Impact of Innovative Behavior on ESG Performance (Social Responsibility)

Variable	Unstandardized Coefficient)		Standardized Coefficient	t	p	Collinearity Statistics	
	B	SE	β			TOL	VIF
(Accountability) ESG Performance (Social responsibility)	1.771	.171		10.380	0.000		
	.397	.045	.424	8.738	0.000	1.000	1.000
<i>F(p)</i>	76.347***						
adj. <i>R</i> ²	.178						
Durbin-Watson	1.794						

*p<.05, **p<.01, ***p<.001

Finally, as a result of analyzing the impact of innovation behavior on ESG performance governance, the explanatory power of the regression model was $R^2=.188$, $F=80.625$, and

$p<.000$, and the path coefficient of innovation behavior was significantly affected by $\beta=.434$, $t=8.979$, and $p<.001$.

Table 11: Analysis of the Impact of Innovative Behavior on ESG Performance (Governance)

Variable	Unstandardized Coefficient)		Standardized Coefficient	t	p	Collinearity Statistics	
	B	SE	β			TOL	VIF
(Accountability) ESG Performance (Governance)	2.231	.181		12.351	0.000		
	.432	.048	.434	8.997	0.000	1.000	1.000
<i>F(p)</i>	80.625***						
adj. <i>R</i> ²	.186						
Durbin-Watson	1.842						

*p<.05, **p<.01, ***p<.001

4.4.4. The mediating effect of innovation behavior in the relationship between coaching leadership and ESG performance

In this study, the mediating effect was analyzed using the SPSS PROCESS macro model 4 to verify whether innovative behavior has a significant mediating effect in the relationship between coaching leadership and ESG

performance. First, as a result of analyzing the impact of sub-factors of coaching leadership on the environment of ESG performance through innovative behavior, significant mediating effects of innovative behavior were identified in all channels.

Table 12: Analysis of the mediating effect of innovative behavior in the relationship between coaching leadership sub-factors and ESG performance (environment)

Independent Variable	Mediating Variable	Dependent Variable	Direct Effect	Indirect Effect	Total Effect	Bootstrap Confidence Interval (95% CI)	
						LLCI	ULCI
Direction	Innovation behavior	Environment	0.313	0.131	0.445	0.077	0.1912
Accountability	Innovation behavior	Environment	0.228	0.137	0.365	0.083	0.1985
Development	Innovation behavior	Environment	0.176	0.065	0.241	0.023	0.1096
Relationship	Innovation behavior	Environment	0.229	0.091	0.321	0.043	0.1473

In addition, as a result of analyzing the impact of sub-factors of coaching leadership on the social responsibility of ESG performance through innovative behavior, innovative

behavior showed a significant mediating effect in all channels as shown in Table 13.

Table 13: Analyzing the mediating effect of innovative behavior in the relationship between coaching leadership sub-factors and ESG performance (social responsibility)

Independent Variable	Mediating Variable	Dependent Variable	Direct Effect	Indirect Effect	Total Effect	Bootstrap Confidence Interval (95% CI)	
						LLCI	ULCI
Direction	Innovation behavior	Social responsibility	0.309	0.148	0.458	0.0887	0.2157
Accountability	Innovation behavior	Social responsibility	0.375	0.127	0.503	0.0745	0.1912
Development	Innovation behavior	Social responsibility	0.233	0.062	0.296	0.0173	0.1127
Relationship	Innovation behavior	Social responsibility	0.199	0.108	0.307	0.0513	0.1354

Subsequently, the effect of each sub-factor of coaching leadership on ESG performance (governance) through innovative behavior was verified in all channels, as shown in Table 14 below.

Table 14: Analysis of the mediating effect of innovative behavior in the relationship between coaching leadership sub-factors and ESG performance (governance)

Independent Variable	Mediating Variable	Dependent Variable	Direct Effect	Indirect Effect	Total Effect	Bootstrap Confidence Interval (95% CI)	
						LLCI	ULCI
Direction	Innovation behavior	Governance	0.237	0.151	0.388	0.093	0.2163
Accountability	Innovation behavior	Governance	0.189	0.152	0.34	0.092	0.2246
Development	Innovation behavior	Governance	0.083	0.089	0.173	0.039	0.1342
Relationship	Innovation behavior	Governance	0.268	0.087	0.356	0.035	0.144

5. Conclusions

The purpose of this study was to examine the relationships among coaching leadership, innovative behavior, and ESG performance in small and medium-sized enterprises (SMEs), and to provide practical implications. Coaching leadership is crucial for companies

facing ESG performance demands from various stakeholders (Park, 2022).

The results indicate that coaching leadership partially positively influences ESG performance and innovative behavior. Specifically, direction-setting and competency development positively affected all aspects of ESG performance (environmental, social responsibility, and

governance), while performance evaluation and relationships showed no significant impact. Direction-setting and competency development in coaching leadership positively influenced innovative behavior, but performance evaluation was not significant. Innovative behavior significantly positively affected all aspects of ESG performance and demonstrated a significant mediating effect between coaching leadership and ESG performance. A key contribution of this study is the identification of a pathway in SMEs where coaching leadership supports employees' innovative behavior, subsequently enhancing ESG performance. Contrary to previous research suggesting that ESG drives innovative behavior, this study found that innovative behavior among SME employees is a crucial factor in improving ESG performance. These findings provide practical and policy implications for fostering ESG performance through coaching leadership and innovative behavior in SMEs. Employees, as key stakeholders, need to understand and empathize with ESG performance and innovative behavior for future-oriented thinking and active dissemination of ESG performance (Kim, 2022). ESG management has become a core strategy for SMEs (Lee & Lee, 2022), with customer demand identified as the strongest adoption factor. With global supply chain restructuring, ESG capabilities are emerging as criteria for supply chain participation (Lee, 2020), increasing pressure on SMEs regarding ESG. There is a need for practical analysis of how SMEs' ESG management policies act as positive preconditions for ESG performance, as well as theoretical research on competitive strategies available to SMEs in the external environment. However, domestic ESG research remains focused on large corporations, with limited studies on SMEs (Baek & Kim, 2023). This study found that companies with flexibility and entrepreneurial spirit in response to the external environment demonstrated higher ESG performance and customer satisfaction. SMEs should recognize ESG demands as opportunities for differentiation and strive to maximize their strategic initiative according to their organizational characteristics and situations. While many SMEs call for government support due to human and financial difficulties (Park, 2022), it is crucial to recognize that external pressure from ESG can become a niche strategy and opportunity. Limitations of this study include the limited sample size, reliance on single-source information, and lack of consideration for CEO influence. Future research should address these limitations through larger samples, diverse information sources, and consideration of CEO factors.

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