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## THE EFFECTS OF ESG PRACTICES ON CORPORATE FINANCIAL SUSTAINABILITY: EVIDENCE FROM DEVELOPED AND DEVELOPING COUNTRIES

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### ABSTRACT

*The purpose of this research* – to explore the effects of ESG (environmental, social, and governance) practices on firm financial sustainability in developed and developing economies.

*Methodology* – Panel regression analysis is used to test the effects of ESG practices on financial sustainability by controlling year, sector, and country fixed effects. Financial performance is estimated based on Tobin's Q, while ESG practices are measured using ESG scores obtained from Eikon's ASSET4. The final sample consists of 34,953 firm-observations from 49 countries from 2002 to 2022.

*Originality/value of the research* – This work offers important implications for various stakeholders by providing new insights into the relationship between ESG practices and financial sustainability of public firms operating in different countries and highlighting the role of country-level economic conditions in promoting corporate ESG initiatives and sustainability.

*Findings* – The study shows that the individual and composite ESG practices can substantially improve financial performance. The results also show that the positive impacts of environmental and social initiatives and the overall ESG practices on financial well-being are more pronounced for firms from developed economies. Further analysis verifies that improved ESG practices may increase financial stability, measured as the Altman's score.

*Keywords:* ESG practices, firm performance, financial sustainability, sustainable development, developed countries, developing economies.

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### INTRODUCTION

In recent years, ESG (environmental, social, and governance) initiatives and practices have received increasing interests among regulators, investors, practitioners, and scholars. Businesses are facing intensive stakeholder pressures to introduce, implement, and disclose their ESG practices [1; 2; 3]. Nevertheless, organizational stakeholders are not fully convinced whether investments in ESG activities yield firm sustainability and subsequent financial outcomes [4; 5]. Hence, the question of whether ESG practices create economic benefits for firms operating in different markets still remains open in the academic literature. Moreover, evidence on the effects of ESG practices on firm financial sustainability, especially in countries with different economic conditions, is relatively limited.

Therefore, this study examines the relationship between ESG practices and firm financial performance using large data on ESG from the Eikon's ASSET4 database and financial indicators from the Datastream and Worldscope databases. The final international sample consists of 34,953 firm-observations from 49 countries over the period 2002–2022. The results reveal that increased levels of ESG practices are positively related to financial outcomes. The results also suggest that the positive impacts of environmental and social activities on

financial performance are more pronounced for firms from developed economies. However, the positive effects of corporate governance are unlikely to differ between developed and developing countries. Further analysis shows that proactive ESG practices reduce financial risks and the financial stability-enhancing effects of ESG practices are again stronger for firms from developed economies.

This study contributes to the ESG and corporate sustainability literature in several ways. In particular, it extends past research [5; 6; 7] by examining how proactive ESG practices influence firm financial results based on a recent and extensive international dataset. Unlike prior studies [1; 2], this study explores the effects of the individual ESG practices (social, environmental, and governance dimensions) and the overall impact of ESG initiatives. The results suggest that firms with proactive environmental, social, and governance practices/initiatives have better financial sustainability. Further, this study contributes to the ESG literature by investigating whether the effects of ESG practices on firm financial performance differ between developed and developing countries. The findings suggest that the positive effects of ESG practices on financial performance are more pronounced for developed economies. The study also offers new evidence that effective ESG practices enhance financial stability and highlights the role of country-level economic conditions in promoting corporate ESG initiatives and sustainability. Overall, the findings of the study provide important implications with regard to ESG practices, sustainability activities, and financial performance.

**Literature review and hypothesis development.** According to stakeholder theory [8], firms that proactively invest and engage in ESG initiatives are likely to increase their financial outcomes by satisfying the demands and needs of all stakeholders. In line with this view, past research [1; 5] argues that firms committed to ESG and sustainability-related activities can meet stakeholders' demands for sustainable development and achieve competitive advantages, including positive financial outcomes. Thus, stakeholder theory predicts a positive association between ESG practices and financial performance. Empirically, Chen et al. [5] documented that higher ESG rankings are positively associated with financial results. With respect to individual ESG dimensions, Jia and Li [6] found that environmental initiatives reduce financial risks and improve sustainability in Australia. Further, Orazalin and Mahmood [9] reported that internal governance practices are key to improving operating performance in Kazakhstan. Similarly, Cheung et al. [10] concluded that higher corporate social performance brings economies benefits for firms in Hong Kong. Based on the above discussion, it is therefore assumed that firms with increased individual and the overall ESG practices are likely to have better financial performance. Accordingly, the following hypotheses are proposed:

*H1a: Environmental practices of ESG improve financial performance*

*H1b: Social practices of ESG improve financial performance*

*H1c: Governance practices of ESG improve financial performance*

*H1d: Composite ESG practices improve financial performance*

Prior studies [11; 12] have documented that the country's economic development can greatly influence a firm's ESG practices and financial results. In other words, there is a significant difference between developed and developing countries, when it comes to the relationships among country-level regulatory settings and economic conditions, corporate practices, and organizational performance results [13]. Therefore, given that firm-level ESG practices, sustainability-related initiatives, and performance outcomes in developing countries are different from those in emerging markets [11; 12], it is expected that the effects of ESG practices and initiatives on financial performance are likely to differ between developed and developing countries. Accordingly, the following hypotheses are developed:

*H2a: Environmental practices' effects on financial performance are different for developed and developing markets*

*H2b: Social practices' effects on financial performance are different for developed and developing markets*

*H2c: Governance practices' effects on financial performance are different for developed and developing markets*

*H2d: Composite ESG practices' effects on financial performance are different for developed and developing markets*

## MAIN BODY

**Research methodology.** *Sample and data.* The study examines all global public firms with ESG and market data available in Eikon's ASSET4. Data on ESG practices were collected from ASSET4, while financial indicators were obtained from Datastream and Worldscope. After removing firms with missing data on the main and control variables, the final sample consists of 34,953 firm-years from 49 countries from 2002 to 2022. The sample breakdown by country presented in Table 1 shows that the United States (19.29 %) is the most represented developed country, followed by Japan (13.73 %), and the United Kingdom (10.47 %), while emerging markets, such as Kazakhstan (0.05 %) and Papua New Guinea (0.04 %), are the least represented.

*Variables.* The dependent variable is a firm's financial performance, measured using Tobin's Q (TOBIN). Consistent with past studies [12; 14], TOBIN is estimated as the sum of market capitalization and total liabilities divided by total assets. This measure better reflects stakeholders' perceptions about a firm's sustainability-related activities and performance [12]. Generally, the higher the TOBIN value, the better the financial performance of the firm.

The independent variables are the individual and composite ESG practices. In line with past research [4; 5; 7], the study assesses the ESG variables using environmental (ESGscore), social (SOCscore), governance (GOVscore), and ESG (ESGscore) scores obtained from ASSET4. ESGscore is the weighted average rating based on environmental activities/initiatives, including green innovations, emissions reductions, and optimal use of natural resources. SOGscore is the weighted average rating based on social information and activities related to community services, human rights protection, product responsibility integration, and workforce effectiveness. GOVscore is the weighted average rating based on internal governance dimensions, including management governance, shareholder treatment, and CSR practices. ESGscore represents the composite score based on the indicators in the ENVscore, SOCscore, and GOVscore pillars. These ESG scores range between 0 % and 100 %.

The study also includes a set of control variables that determine financial outcomes, consistent with past research [1; 2; 3; 5; 6; 12]. In particular, the analysis controls for firm size (FSIZE), profitability (FPRFT), slack (SLACK), capital intensity (CPLIN), liquidity (LIQDT), and leverage (DEBT). The descriptions and measurements of these variables are outlined in Appendix 1.

*Models.* The study employs the following model to test the effects of ESG practices on financial performance:

$$TOBIN_{it} = \alpha_0 + \alpha_1 ESG_{it} + \sum Controls_{it} + \sum Fixed\ Effects + e \quad (1)$$

where, TOBIN represents financial performance, measured as Tobin's Q; ESG represents the individual (ENVscore, SOCscore, and GOVscore) and the overall ESG (ESGscore) practices. The model includes year, sector, and country fixed effects to control for possible differences across years, industries, and markets. All other variables are defined in Appendix 1.

To test whether the effects of ESG practices on financial sustainability differ between developed and developing economies, the study uses the following model:

$$TOBIN_{it} = \alpha_0 + \alpha_1 ESG_{it} + \alpha_2 ESG * DEVEL_{it} + \alpha_3 DEVEL_{it} + \sum Controls + \sum Fixed\ Effects + e \quad (2)$$

where, DEVEL is an indicator if firm-years belong to developed countries, and zero otherwise; ESG\*DEVEL is the interaction term between ESG practices and DEVEL.

**Findings and discussion.** Table 2 outlines the descriptive statistics. The mean value (standard deviation) of TOBIN is 1.66 (1.03) and ranges between 0.62 and 6.57. The average values of ENVscore, SOCscore, GOVscore, and ESGscore are 49.79 %, 51.60 %, 55.01 %, and 52.07 %, respectively. The statistics for the control variables are consistent with past studies [5; 6; 7; 12]. Further, table 3 specifies the correlation coefficients. As expected, SOCscore, GOVscore, and ESGscore are positively correlated with TOBIN. In contrast, ENVscore

is negatively correlated with TOBIN. Nevertheless, the complex relationships between ESG and TOBIN cannot be explained by univariate correlation analysis. Hence, it is important to utilize multivariate analysis, which takes into account the confounding effects of other factors and differences across years, sectors, and markets. The coefficients between the independent variables are lower than 0.70, indicating the absence of multicollinearity threats. The high correlation of 0.90 between SOCscore and ESGscore is not an issue as these explanatory variables are not included in the same regression analysis.

Table 2 – Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
TOBIN	34953	1.66	1.03	0.62	6.57
ENVscore	34953	49.79	26.31	0.00	94.51
SOCscore	34953	51.60	23.66	3.88	94.34
GOVscore	34953	55.01	21.69	8.80	93.81
ESGscore	34953	52.07	19.61	9.22	88.75
FPRFT	34953	6.69	8.15	-21.63	33.26
FSIZE	34953	15.76	1.37	12.65	19.08
SLACK	34953	0.12	0.10	0.00	0.51
CPLIN	34953	0.36	0.23	0.01	0.90
LIQDT	34953	1.63	0.99	0.35	6.14
DEBT	34953	0.56	0.19	0.13	1.00
Notes: All variables are described in Appendix 1.					

Table 3 – Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
TOBIN	1.00										
ENVscore	-0.06	1.00									
SOCscore	0.05	0.72	1.00								
GOVscore	0.00	0.31	0.36	1.00							
ESGscore	0.00	0.87	0.90	0.61	1.00						
FPRFT	0.55	-0.04	0.02	-0.01	-0.01	1.00					
FSIZE	-0.24	0.40	0.33	0.21	0.39	-0.11	1.00				
SLACK	0.22	-0.04	-0.04	-0.04	-0.04	0.17	-0.16	1.00			
CPLIN	-0.15	-0.03	-0.07	0.01	-0.05	-0.13	0.07	-0.32	1.00		
LIQDT	0.15	-0.10	-0.10	-0.05	-0.10	0.17	-0.26	0.50	-0.20	1.00	
DEBT	-0.09	0.11	0.13	0.05	0.13	-0.26	0.25	-0.24	0.00	-0.56	1.00
Notes: All variables are described in Appendix 1.											

Table 4 presents the results from regressing TOBIN on the ESG variables. As reported, the coefficients of ENVscore, SOCscore, and GOVscore are positively significant, implying that proactive and increased individual dimensions of ESG can substantially improve financial results of global firms operating in different countries. Similarly, the coefficient of ESGindex is positive and statistically significant, indicating that the composite ESG practices lead to increased financial performance. Thus, *H1a*, *H1b*, *H1c*, and *H1d* are supported. These results are also in line with past research [2; 5; 6] that firms with more effective and higher environmental, social, governance, and composite ESG practices have better performance outcomes. Overall, the results in Table 4 support stakeholder theory and suggest that firms with better environmental, social, and governance practices exhibit better financial sustainability.

Table 4 – Effects of ESG practices on financial performance

	(1)	(2)	(3)	(4)
	TOBIN	TOBIN	TOBIN	TOBIN
ENVscore	0.002*** (0.000)			
SOCscore		0.004*** (0.000)		
GOVscore			0.001*** (0.000)	
ESGscore				0.004*** (0.000)
FPRFT	0.062*** (0.001)	0.062*** (0.001)	0.063*** (0.001)	0.062*** (0.001)
FSIZE	-0.174*** (0.005)	-0.179*** (0.004)	-0.157*** (0.004)	-0.182*** (0.005)
SLACK	1.291*** (0.075)	1.283*** (0.075)	1.299*** (0.075)	1.284*** (0.075)
CPLIN	0.083*** (0.021)	0.086*** (0.021)	0.085*** (0.021)	0.088*** (0.021)
LIQDT	-0.007 (0.007)	-0.005 (0.007)	-0.007 (0.007)	-0.005 (0.007)
DEBT	0.571*** (0.035)	0.577*** (0.035)	0.575*** (0.035)	0.574*** (0.035)
Constant	3.358*** (0.088)	3.444*** (0.088)	3.025*** (0.082)	3.482*** (0.089)
Year FE	Included	Included	Included	Included
Sector FE	Included	Included	Included	Included
Country FE	Included	Included	Included	Included
Observations	34953	34953	34953	34953
Adj. R-squared	0.470	0.472	0.469	0.472

Notes: Robust standard errors are estimated in parentheses. All variables are described in Appendix 1. \*\*\*, \*\*, \* indicate the significance levels at 1%, 5%, and 10%, respectively.

Table 5 reports the results from regressing TOBIN on the interactions of the ESG variables with the DEVEL variable. The coefficients of ENVindex\*DEVEL and SOCindex\*DEVEL are positively significant, implying that environmental and social practices have a greater positive impact on financial performance in developed countries. Consistent with *H2a* and *H2b*, these results indicate that the effects of environmental and social practices on financial performance are different for firms in developed and developing economies. However, the coefficient of GOVindex\*DEVEL is insignificant, suggesting governance practices have the same positive impacts on financial performance in both developed and developing markets. Hence, *H2c* is not supported. This evidence suggests that effective corporate governance plays a key role in fostering financial sustainability in any market, irrespective of the country's economic development. Further, the coefficient of ESGindex\*DEVEL is significant and positive. In line with *H2d*, this finding indicates that a holistic form of ESG practices has a stronger effect on financial results in developed economies. Overall, the results in Table 5 suggest that the country's economic development is one of the important driving factors promoting ESG practices, supporting sustainability initiatives, and yielding corporate sustainability.

Table 5 – Effects of ESG practices in developed and developing economies

	(1)	(2)	(3)	(4)
	TOBIN	TOBIN	TOBIN	TOBIN
ENVscore	0.002*** (0.000)			



ENVscore*DEVEL	0.003***			
	(0.001)			
SOCscore		0.004***		
		(0.000)		
SOCscore*DEVEL		0.004***		
		(0.001)		
GOVscore			0.001***	
			(0.000)	
GOVscore*DEVEL			-0.000	
			(0.001)	
ESGscore				0.004***
				(0.000)
ESGscore*DEVEL				0.004***
				(0.001)
DEVEL	0.307***	0.301***	0.299***	0.281***
	(0.067)	(0.067)	(0.066)	(0.067)
FPRFT	0.062***	0.062***	0.063***	0.062***
	(0.001)	(0.001)	(0.001)	(0.001)
FSIZE	-0.176***	-0.182***	-0.157***	-0.185***
	(0.005)	(0.004)	(0.004)	(0.005)
SLACK	1.293***	1.282***	1.298***	1.285***
	(0.075)	(0.075)	(0.075)	(0.075)
CPLIN	0.083***	0.088***	0.085***	0.089***
	(0.021)	(0.021)	(0.021)	(0.021)
LIQDT	-0.007	-0.005	-0.007	-0.005
	(0.007)	(0.007)	(0.007)	(0.007)
DEBT	0.571***	0.577***	0.575***	0.575***
	(0.035)	(0.035)	(0.035)	(0.035)
Constant	3.352***	3.460***	2.976***	3.491***
	(0.088)	(0.088)	(0.081)	(0.089)
Year FE	Included	Included	Included	Included
Sector FE	Included	Included	Included	Included
Country FE	Included	Included	Included	Included
Observations	34953	34953	34953	34953
Adj. R-squared	0.471	0.473	0.469	0.472

Notes: Robust standard errors are estimated in parentheses. All variables are described in Appendix 1. \*\*\*, \* indicate the significance levels at 1%, 5%, and 10%, respectively.

Further, the study goes beyond the existing literature and uses another aspect of firm performance, namely financial stability (*ALT*), which is estimated using the Altman's score [15]. To obtain this score, the following formula is utilized:

(3)

$$ALT = 1.2 * \text{Working capital} / \text{Total assets} + 1.4 * \text{Retained profits} / \text{Total assets} + 3.3 * \text{Earnings before interest and taxation} / \text{Total assets} + 0.6 * \text{Market capitalization} / \text{Total liabilities} + 0.99 * \text{Sales} / \text{Total assets}$$

The use of Altman's score enables to assess the effects of ESG practices on financial stability, and financial sustainability in general. The results in Panel A of Appendix 2 show that the coefficients of the ESG variables are positive and statistically significant and suggest that firms with higher ESG rankings are financially more stable. Panel B further verifies that the financial stability-increasing effects of ESG practices are stronger for firms from developed countries. Overall, the results in Appendix 2 support those in Tables 4 and 5 and suggest that higher ESG practices lead to better financial sustainability, and these effects are more pronounced for developed countries, thus highlighting the importance of the country's economic development.

## CONCLUSIONS

This study empirically examines the effects of ESG practices on firm financial performance and investigates whether these effects differ for firms in developed and developing countries. Based on a large sample (34,953 firm-observations) from 49 countries for the 2002-2022 period, this study reveals that the individual and overall ESG practices are positively associated with financial performance. Furthermore, the positive impacts of ESG initiatives on financial performance are more pronounced for developed countries. The results from additional analysis also confirm that increased ESG practices play a crucial role in enhancing financial sustainability in both developed and developing economies.

The findings of this work have important implications for various stakeholders. For example, the results suggest that corporate managers that seek to increase shareholder value and enhance financial sustainability need to introduce and implement proactive ESG practices. In particular, they need to focus not only on ESG practices in general but also need to promote sustainable development by engaging in proactive environmental initiatives, undertaking forward-looking social activities, and adopting effective governance mechanisms. Further, the findings may help investors, who are concerned about sustainability issues, select eco-friendly projects and make effective investment decisions. The results also suggest that both national and global regulators need to support corporations by introducing effective and enforceable policies and regulations that aim to promote ESG practices and corporate sustainability in general.

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## ESG ТӘЖІРИБЕЛЕРІНІҢ КОМПАНИЯЛАРДЫҢ ҚАРЖЫЛЫҚ ТҰРАҚТЫЛЫҒЫНА ӘСЕРІ: ДАМЫҒАН ЖӘНЕ ДАМУШЫ ЕЛДЕРДІҢ ТӘЖІРИБЕСІ

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### АНДАТПА

*Зерттеудің мақсаты* – Бұл зерттеу ESG (экологиялық, әлеуметтік және басқару) тәжірибесінің дамыған және дамушы экономикалардағы фирмалардың қаржылық тұрақтылығына әсерін зерттеуге бағытталған.

*Әдіснамасы* – Панельдік регрессиялық талдау жыл, сектор және ел бойынша тіркелген әсерлерді бақылау арқылы ESG тәжірибесінің қаржылық тұрақтылыққа әсерін тексеру үшін қолданылады. Қаржылық өнімділік Тобиннің Q-ы көмегімен өлшенеді, ал ESG тәжірибелері Akon's ASSET4 алынған ESG ұпайлары арқылы өлшенеді. Соңғы үлгі 2002 жылдан 2022 жылға дейін 49 елден алынған 34 953 фирмалық бақылаудан тұрады.

*Зерттеудің бірегейлігі / құндылығы* – Бұл жұмыс ESG тәжірибесі мен әртүрлі елдерде жұмыс істейтін мемлекеттік фирмалардың қаржылық тұрақтылығы арасындағы қарым-қатынас туралы жаңа түсініктер беру және корпоративтік ESG бастамалары мен тұрақтылықты жылжытуда мемлекет деңгейіндегі экономикалық жағдайлардың рөлін көрсету арқылы әртүрлі мүдделі тараптар үшін маңызды қорытындыларды ұсынады.

*Зерттеу нәтижелері* – Зерттеу жеке және композициялық ESG тәжірибелері қаржылық нәтижелерді айтарлықтай жақсартатынын көрсетеді. Нәтижелер сонымен қатар экологиялық және әлеуметтік бастамалардың және жалпы ESG тәжірибесінің қаржылық тұрақтылыққа оң әсері дамыған елдердің фирмалары үшін айқынырақ екенін көрсетеді. Талдау нәтижелері жақсартылған ESG тәжірибесі Альтман индексімен өлшенетін қаржылық тұрақтылықты жақсартатынын растайды.

*Түйін сөздер*: ESG тәжірибесі, фирма өнімділігі, қаржылық тұрақтылық, тұрақты даму, дамыған елдер, дамушы экономикалар.

*Алғыс*: Зерттеу Қазақстан Республикасы Ғылым және жоғары білім министрлігінің Ғылым комитетімен қаржыландырылған (Грант № AP23490230).

## ВЛИЯНИЕ ПРАКТИК ESG НА ФИНАНСОВУЮ УСТОЙЧИВОСТЬ КОМПАНИЙ: ОПЫТ РАЗВИТЫХ И РАЗВИВАЮЩИХСЯ СТРАН

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### АННОТАЦИЯ

*Цель исследования* – данное исследование направлено на изучение влияния практик ESG (экологических, социальных и управленческих) на финансовую устойчивость фирм в развитых и развивающихся экономиках.

*Методология исследования* – панельный регрессионный анализ используется для проверки влияния практик ESG на финансовую устойчивость путем контроля фиксированных эффектов года, сектора и страны. Финансовые показатели оцениваются на основе Q Тобина, в то время как практики ESG измеряются с использованием баллов ESG, полученных из ASSET4 Эйкона. Окончательная выборка состоит из 34 953 наблюдений за фирмами из 49 стран с 2002 по 2022 годы.

*Оригинальность / ценность исследования* – данная работа предлагает важные выводы для различных заинтересованных сторон, предоставляя новое понимание взаимосвязи между практиками ESG и финансовой устойчивостью государственных фирм, работающих в разных странах, и подчеркивая роль экономических условий на уровне страны в продвижении корпоративных инициатив ESG и устойчивости.

*Результаты исследования* – исследование показывает, что отдельные и составные практики ESG могут существенно улучшить финансовые показатели. Результаты также показывают, что положительное влияние экологических и социальных инициатив и общих практик ESG на финансовое благополучие более выражено для фирм из развитых стран. Дальнейший анализ подтверждает, что улучшенные практики ESG могут повысить финансовую стабильность, измеряемую как индекс Альтмана.

*Ключевые слова:* практики ESG, эффективность фирмы, финансовая устойчивость, устойчивое развитие, развитые страны, развивающиеся экономики.

*Благодарность:* Исследование выполнено при финансовой поддержке Комитета науки Министерства науки и высшего образования Республики Казахстан (грант № AP23490230).

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Table 1 – Tabulation of Country

Country	Frequency	Percent	Cumulative
AUSTRALIA	1257	3.60	3.60
AUSTRIA	237	0.68	4.27
BELGIUM	266	0.76	5.04
BRAZIL	651	1.86	6.90
CANADA	1582	4.53	11.42
CHILE	208	0.60	12.02
CHINA	1285	3.68	15.70
COLOMBIA	100	0.29	15.98
DENMARK	354	1.01	16.99
FINLAND	397	1.14	18.13
FRANCE	1158	3.31	21.44
GERMANY	1141	3.26	24.71
GREECE	139	0.40	25.11
HONG KONG	1104	3.16	28.26
HUNGARY	29	0.08	28.35
INDIA	532	1.52	29.87
INDONESIA	232	0.66	30.53
IRELAND	335	0.96	31.49
ISRAEL	65	0.19	31.68
ITALY	518	1.48	33.16
JAPAN	4798	13.73	46.89
KAZAKHSTAN	18	0.05	46.94
KUWAIT	23	0.07	47.00
LUXEMBOURG	73	0.21	47.21
MACAO	39	0.11	47.32
MALAYSIA	378	1.08	48.41
MEXICO	272	0.78	49.18
NETHERLANDS	522	1.49	50.68
NEW ZEALAND	246	0.70	51.38
NORWAY	342	0.98	52.36
PAPUA NEW GUINEA	13	0.04	52.40
PERU	43	0.12	52.52
PHILIPPINES	123	0.35	52.87
POLAND	136	0.39	53.26
PORTUGAL	128	0.37	53.63
RUSSIAN FEDERATION	264	0.76	54.38
SAUDI ARABIA	55	0.16	54.54
SINGAPORE	326	0.93	55.47
SOUTH AFRICA	769	2.20	57.67
SOUTH KOREA	789	2.26	59.93
SPAIN	446	1.28	61.21
SWEDEN	687	1.97	63.17
SWITZERLAND	678	1.94	65.11
TAIWAN	1224	3.50	68.61
THAILAND	277	0.79	69.40
TURKEY	237	0.68	70.08
UNITED ARAB EMIRATES	54	0.15	70.24
UNITED KINGDOM	3661	10.47	80.71
UNITED STATES	6742	19.29	100.00
Total	<b>34953</b>	<b>100.00</b>	
Note – compiled by the author			

Appendix 1

Variables	Symbols	Descriptions
<i>Dependent variable</i>		
Financial performance	TOBIN	(Market capitalization + Total liabilities)/Total assets
<i>Independent variables</i>		
Environmental practices	ENVscore	Environmental scores obtained from ASSET4
Social practices	SOCscore	Social scores obtained from ASSET4
Governance practices	GOVscore	Governance scores obtained from ASSET4
ESG practices	ESGscore	Environmental scores obtained from ASSET4
Country groups	DEVEL	Dummy variable = 1 if firm-years belong to a developed country, and 0 otherwise
<i>Control variables</i>		
Firm size	FSIZE	Natural logarithm of total assets
Profitability	FPRFT	Net earnings/Total assets*100
Slack	SLACK	Cash and cash equivalents/Total assets
Capital intensity	CPLIN	Long-term assets/Total assets
Liquidity	LIQDT	Current assets/Current liabilities
Leverage	DEBT	Total liabilities/Total assets
Note – compiled by the author		

Appendix 2

Panel A: Effects of ESG practices on financial stability				
	(1)	(2)	(3)	(4)
	ALT	ALT	ALT	ALT
ENVscore	0.004*** (0.000)			
SOCscore		0.006*** (0.001)		
GOVscore			0.002*** (0.000)	
ESGscore				0.008*** (0.001)
Controls	Included	Included	Included	Included
Year FE	Included	Included	Included	Included
Sector FE	Included	Included	Included	Included
Country FE	Included	Included	Included	Included
Observations	34953	34953	34953	34953
Adj. R-squared	0.638	0.639	0.637	0.639
Panel B: Effects of ESG practices in developed and developing economies				
	(1)	(2)	(3)	(4)
	ALT	ALT	ALT	ALT
ENVscore	0.004*** (0.000)			
ENVscore*DEVEL	0.003** (0.001)			
SOCscore		0.006*** (0.001)		
SOCscore*DEVEL		0.004*** (0.001)		
GOVscore			0.002*** (0.000)	
GOVscore*DEVEL			-0.001 (0.001)	

ESGscore				0.008***
				(0.001)
ESGscore*DEVEL				0.004**
				(0.002)
DEVEL	0.935***	0.891***	0.946***	0.876***
	(0.122)	(0.122)	(0.120)	(0.121)
Controls	Included	Included	Included	Included
Year FE	Included	Included	Included	Included
Sector FE	Included	Included	Included	Included
Country FE	Included	Included	Included	Included
Observations	34953	34953	34953	34953
Adj. R-squared	0.638	0.639	0.637	0.639

Notes: Robust standard errors are estimated in parentheses. All variables are described in Appendix 1. \*\*\*, \*\*, \* indicate the significance levels at 1%, 5%, and 10%, respectively.

MPHTH 06.77.05

JEL Classification: J21; J24; J28; M14; R11

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## THE ROLE OF COMPANIES AND GOVERNMENT PROGRAMS IN THE DEVELOPMENT OF LABOR RESOURCES AND SOCIAL RESPONSIBILITY

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### ABSTRACT

*Purpose.* This research investigates the role of labor resources in the sustainable development of the West Kazakhstan Region (WKR), focusing on the impact of social responsibility initiatives on regional economic stability and growth. The study seeks to elucidate the contributions of major enterprises and state programs to labor market dynamics and regional development.

*Methodology.* The research employs a quantitative approach, analyzing demographic data, labor market statistics, and corporate social responsibility (CSR) initiatives through statistical reports, surveys, interviews from open sources, and document analysis. The study also utilizes data from platforms like hh.kz to assess job vacancies and employment trends within the region.

*Originality / value of the research.* This study offers a comprehensive analysis of the connection between labor resources and social responsibility in fostering regional development in Kazakhstan, a topic less explored in existing literature. By focusing on WKO, the research highlights specific regional challenges and responses, contributing to new insights into the effective management of labor resources in transitional economies.

*The Findings* reveal that WKR exhibits a stable economic condition with a labor force participation rate of 69.8 % and an unemployment rate of 4.9 % despite this stability, the region faces a shortage of qualified specialists. CSR initiatives by major enterprises like North Caspian Operating Company N.V. and KazMunayGas (KMG) subsidiaries have positively impacted social infrastructure and employment rates. The study underscores the necessity of ongoing social projects, enhanced support for young specialists, and improved worker qualifications to sustain economic growth and reduce unemployment in the region.

*Keywords:* labor resources, social responsibility, unemployment, state programs, West Kazakhstan region, investment programs.