


The Role of Internal Audit Quality in Advancing Corporate Social Responsibility and Sustainable Development: A Cross-Country Analysis of Trade Sector Firms

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ABSTRACT: The aim of this study is to quantitatively assess the relationship between the quality of internal audit of non-financial information and the level of corporate social responsibility (CSR) maturity in trade sector companies in post-Soviet countries. The research method involved surveying 114 representatives of retail and wholesale enterprises from eight countries, followed by multiple linear regression analysis based on country-level aggregated data. The CSR maturity index was calculated based on five thematic areas reflecting the specifics of sustainable development. To assess the quality of internal audit, five independent variables were used: completeness of information, process automation, staff competence, independence of the audit function, and compliance with non-financial disclosure standards. The regression results showed a statistically significant positive association between CSR maturity and two factors: the availability and completeness of non-financial information ($\beta = 0.614$, $p = 0.0028$) and compliance with non-financial disclosure standards ($\beta = 0.634$, $p = 0.0045$). The other factors process automation, staff competence, and independence of the audit function did not show a statistically significant association with CSR maturity. Thus, internal audit can become a key tool in enhancing the reliability of non-financial reporting and the development of CSR in the trade sector, provided there is a focus on ensuring information completeness and standardization. The practical significance of our study lies in the possibility of using the obtained results to improve the organization of internal audit as an effective tool for increasing the reliability and quality of information on corporate social responsibility.

Keywords: Corporate social responsibility (CSR), CSR maturity, Sustainable development, Internal audit quality, Non-financial re-orting, Social accounting, Trade sector.

I. INTRODUCTION

CSR practices are a frequent subject of discussion and criticism: proponents of responsible business emphasize the benefits for companies, such as building a positive corporate reputation, while critics argue

that CSR violates the principle of profit maximization. However, this debate only confirms that corporate social responsibility is an important research topic at the intersection of business and society, encompassing business ethics, corporate social initiatives, global corporate citizenship, and stakeholder management. Academic literature offers various definitions of the term Corporate Social Responsibility (CSR), but all of them share the idea that CSR refers to socially and environmentally responsible actions by enterprises aimed at implementing the fundamental concept of sustainable economic activity [1]. CSR concepts were initially oriented toward large businesses, mainly in the industrial sector, and participants in international business relations and stock trading. Today, sustainable development strategies and standards are increasingly being integrated into the core business models of companies across other economic sectors, including the trade sector.

In the trade sector, CSR has a particularly strong stakeholder dimension, since retail and wholesale companies interact directly with consumers, suppliers, local communities, and employees. For this reason, CSR maturity in this sector should not be viewed only as a formal corporate governance practice, but also as a reflection of how companies manage product safety, responsible consumption, supply chain transparency, employee welfare, and community engagement [2]. These aspects make the trade sector especially relevant for studying the reliability of non-financial information and the role of internal audit in supporting socially responsible business practices.

The formation and disclosure of non-financial reporting make it possible to ensure transparency, comparability, and quality of non-financial information, as well as to build dialogue with stakeholders. This simplifies the measurement, monitoring, and management of company performance and their impact on society. Currently, almost 96% of the world's largest companies provide some form of sustainability reporting [3]. However, despite the existence of general CSR and ESG frameworks, the regulation of non-financial reporting remains fragmented. It should be noted that external audit confirmation of reporting accuracy is not a mandatory regulatory requirement in any post-Soviet country and is largely left to the discretion of companies. Furthermore, the lack of clear guidelines defining the composition of non-financial indicators leads to insufficient comparability and reliability of such indicators, as well as to the phenomenon of greenwashing. Many post-Soviet countries have begun to lay the groundwork for regulation. For example, initiatives have been developed to regulate climate impact, and statistical reporting on emissions has been approved. Regulatory authorities are increasingly focusing on the reliability of non-financial reporting and tightening the requirements for its provision. This will reduce the risk of misleading non-financial information used for decision-making by investors and other stakeholders.

In a context where guarantees of objectivity, accuracy, and relevance of non-financial information are needed, internal audit plays a major role. Unlike external auditors, internal auditors possess deeper knowledge of a company's business processes. To identify potential risks in a timely manner and inform management, internal audit can conduct the initial verification of indicators and assist in the independent assurance of non-financial reporting by external auditors. The association between internal audit quality and CSR maturity can be explained through several mechanisms. First, internal audit supports the completeness and consistency of non-financial information, enabling companies to measure CSR performance in a more systematic and standardized manner. Second, the use of formalized disclosure standards reduces fragmentation and improves the comparability of sustainability reporting. Third, internal audit can identify weaknesses in ESG- and CSR-related internal control systems and provide management with recommendations for improving sustainable development processes. Thus, internal audit may contribute to CSR maturity not through a direct effect, but by strengthening information reliability, reporting discipline, and managerial accountability.

Despite a growing body of research on CSR, ESG reporting, and audit assurance, the relationship between the internal audit function, the quality of non-financial information, and CSR maturity remains under-researched. This issue is particularly relevant for the trade sector in post-Soviet countries, where non-financial reporting practices are still developing, regulatory requirements remain fragmented, and external assurance of sustainability reports is not yet legally required. At the same time, the findings may be relevant for other developing countries facing similar challenges related to data completeness, reporting

standardization, and the institutionalization of CSR practices. Consequently, examining the relationship between internal audit quality and CSR maturity in trade companies remains both theoretically and practically relevant.

II. RELATED WORK

Existing literature provides extensive empirical evidence that CSR is associated with a range of positive organizational outcomes. Previous studies show that CSR practices may contribute to improved financial performance [4–9], increased employee satisfaction, engagement, and retention [10–13], enhanced corporate reputation [14–17], as well as better access to financing and higher investment attractiveness [18–21]. These findings demonstrate that CSR is not limited to ethical or philanthropic activities, but is increasingly viewed as a factor influencing long-term organizational competitiveness and stakeholder trust. A separate stream of research focuses on the methodological aspects of CSR assessment. Since CSR covers a broad range of social, environmental, and governance dimensions, researchers use different indicators to evaluate the maturity of socially responsible business practices. Among the most common areas are stakeholder management and engagement [22–26], participation in local community development [27–30], decent working conditions and equal opportunities [31, 32], contributions to public health improvement [33–35], and the implementation of sustainable consumption and resource use models [36–38]. These dimensions are particularly important for evaluating CSR maturity because they reflect not only the formal existence of CSR policies, but also the degree to which such practices are integrated into business processes.

Another important area of research concerns the disclosure of non-financial information. Amid growing corporate awareness of social and environmental responsibility, many authors emphasize non-financial reporting as an effective tool for communication with stakeholders, especially in relation to Environmental, Social, and Governance (ESG) issues [39]. At the same time, the literature points to several unresolved problems in the formation of non-financial reporting, including the collection and preparation of social accounting and environmental data [40], as well as the legal regulation and standardization of information required for disclosure [41, 42]. These problems reduce the comparability, reliability, and practical usefulness of non-financial information for stakeholders. The reliability of non-financial information is especially important when CSR maturity is assessed on the basis of disclosed indicators. Stakeholders must be confident that the information used to evaluate a company's commitment to sustainable development is complete, accurate, and comparable. This reliability can be enhanced through assurance procedures, including the audit of non-financial reporting. Since the mission of internal audit is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight, its involvement in sustainable development and ESG-related processes is both relevant and natural. However, the contribution of internal audit to ESG efforts may depend on the organization's ambitions, strategy, ESG programs, and reporting framework [43]. Non-financial reporting includes a wide range of indicators, which requires organizations to develop internal policies, control procedures, and mechanisms for collecting and verifying sustainability-related data. These processes are closely related to the role of internal audit in ESG reporting [44]. Previous studies confirm the significant contribution of internal audit to the development of CSR strategies [45–47]. Internal audit not only supports the establishment of appropriate corporate governance mechanisms, but also helps companies achieve sustainable development goals [48–50]. In addition, empirical research demonstrates a positive relationship between internal audit and the quality of non-financial reporting [51–53].

Taken together, previous studies can be grouped into three main research streams. The first stream examines the organizational outcomes of CSR, including financial performance, employee engagement, corporate reputation, access to finance, and investment attractiveness. The second stream focuses on the measurement and disclosure of non-financial information, including stakeholder engagement, community development, labor practices, public health, responsible consumption, and resource use. The third-stream addresses assurance mechanisms and the role of internal audit in ESG and sustainability reporting. However, these research streams are often considered separately. Studies on CSR maturity usually focus on the content and outcomes of socially responsible practices, but do not sufficiently explain how internal audit contributes to

the reliability, completeness, and standardization of non-financial information. Conversely, studies on internal audit and ESG assurance tend to focus on reporting quality, while paying less attention to whether improved audit practices are associated with a higher level of CSR maturity. This fragmentation limits the understanding of how internal audit may support the institutional development of CSR within companies.

This gap is especially relevant for the trade sector. Retail and wholesale companies maintain direct relationships with consumers, suppliers, employees, and local communities; therefore, their CSR maturity depends not only on formal policies, but also on the quality of information used to monitor product safety, responsible consumption, labor practices, supply chain transparency, and community engagement. Nevertheless, sector-specific research on the relationship between internal audit quality and CSR maturity in trade companies remains limited. Existing studies often generalize CSR practices across industries or focus on large listed companies, while less attention is paid to trade companies operating in emerging and post-Soviet institutional contexts.

III. MATERIAL AND METHOD

This study examines CSR practices and the development of internal audit of non-financial information in the trade sector of post-Soviet countries. The empirical analysis is based on a survey of senior managers and specialists responsible for strategic development, CSR, ESG reporting, internal control, or internal audit in trade sector companies. The initial respondent base included 150 retail and wholesale enterprises from eight post-Soviet countries.

1. DATA COLLECTION

The respondent base was formed using national state registers of legal entities, KazDATA, the National Register of Corporate Non-Financial Reports, and other publicly available sources. The questionnaire was distributed by email. A total of 114 valid responses were received. The achieved sample size was sufficient for descriptive analysis of the surveyed companies and for calculating aggregated country-level indicators. Table 1 presents the profile of the survey participants.

Table 1. Survey participant profile.

By Country of Registration	Frequency (n)	Percentage (%)
Russian Federation	34	29.8%
Kazakhstan	18	15.8%
Belarus	20	17.5%
Armenia	9	7.9%
Kyrgyzstan	8	7.0%
Azerbaijan	8	7.0%
Uzbekistan	9	7.9%
Tajikistan	8	7.0%
Total	114	100.0%
By Trade Format		
FMCG retail chains	38	33.3%
Non-food retail	43	37.7%
Specialized food retail chains	19	16.7%
Wholesale trade	14	12.3%
Total	114	100.0%
By Number of Stores		
Less than 10	6	5.3%
From 11 to 50	11	9.6%

From 51 to 100	20	17.5%
From 100 to 200	35	30.7%
More than 200	42	36.8%
Total	114	100.0%

The questionnaire contained two groups of statements. The first group was used to assess the level of CSR maturity in trade sector companies. The second group was used to assess the quality of internal audit of non-financial information. Respondents evaluated the extent to which each statement applied to their company using a four-point scale: 0 – no / cannot answer; 1 – rather no than yes; 2 – rather yes than no; and 3 – yes. The CSR maturity index was used as the dependent variable. It was calculated on the basis of five thematic areas reflecting the specific features of sustainable development in the trade sector: governance and stakeholder engagement, participation in local community development, decent working conditions and equal opportunities, contribution to public health improvement, and promotion of responsible consumption and resource use. Each thematic area was assigned an equal weight of 0.2.

Table 2. Structure of the CSR maturity index.

CSR Thematic Areas	Number of Statements/Questions	Weighting Coefficient
Governance and stakeholder engagement.	7	0.2
Participation in local community development.	3	0.2
Ensuring decent working conditions and equal opportunities.	3	0.2
Contribution to public health improvement.	3	0.2
Promotion of responsible consumption and resource use.	3	0.2

For each country, the *CSR* maturity index was calculated as a weighted average of the five thematic indices:

$$CSR = 0.2I1j + 0.2I2j + 0.2I3j + 0.2I4j + 0.2I5j \quad (1)$$

where CSR_j is the *CSR* maturity index for country j , and $I1j$, $I2j$, $I3j$, $I4j$, and $I5j$ are the average scores for the five *CSR* thematic areas in country j . The thematic index for each *CSR* area was calculated as follows:

$$Imj = \frac{Score\ mj}{(km \times nj)} \quad (2)$$

where Imj is the index for thematic area m in country j ; $Score\ mj$ is the total score obtained for thematic area m among companies from country j ; km is the number of questionnaire statements for thematic area m ; and nj is the number of surveyed companies from country j .

IV. DATA ANALYSIS

The quality of internal audit of non-financial information was assessed using five independent variables. In this study, internal audit quality is understood as the extent to which the internal audit function supports the completeness, standardization, verification, and organizational reliability of sustainability-related data. The following variables were used: X1 is the availability and completeness of data for auditing non-financial reporting, X2 is existence of formalized rules and process automation in internal audit, X3 is professionalism and competence of internal audit staff, X4 is organizational independence of the internal audit function, and X5 is application of standards for non-financial information disclosure.

Respondents assessed the level of development of these indicators using the same four-point scale: 0 – low level; 1–satisfactory level; 2–good level; and 3–high level. The values of the independent variables were calculated as country-level averages using an approach analogous to Formula (2). Although the survey included 114 company-level responses, the regression analysis was conducted using aggregated indicators for eight countries. This aggregation reflects the cross-country structure of the study and allows comparison of CSR maturity and internal audit quality across different post-Soviet institutional contexts. Therefore, the regression dataset consists of eight country-level observations. To examine the relationship between internal audit quality and CSR maturity, a multiple linear regression model was used:

$$CSR_j = \beta_0 + \beta_1 X_{1j} + \beta_2 X_{2j} + \beta_3 X_{3j} + \beta_4 X_{4j} + \beta_5 X_{5j} + \epsilon_j \quad (3)$$

where CSR_j is the CSR maturity index for country j ; X_{1j} – X_{5j} are the country-level indicators characterizing the quality of internal audit of non-financial information; β_0 is the intercept; β_1 – β_5 are regression coefficients; and ϵ_j is the error term.

The regression analysis was conducted in two stages. First, the full model including all five independent variables was estimated. Second, variables that did not meet the statistical significance criterion were excluded using a stepwise procedure. The final model retained only statistically significant predictors. Given the small number of aggregated country-level observations, the results should be interpreted as evidence of statistical association rather than strict causal effects.

V. RESULTS

1. RESULTS OF THE ASSESSMENT OF CSR INTEGRATION IN TRADE SECTOR COMPANIES

The survey results show that 44.6% of the surveyed companies have an approved CSR policy. 28.9% do not have a formalized CSR policy but plan to implement one in the future. It is concerning that 26.5% of companies neither have a CSR program nor plan to adopt one. About 41.2% of respondents indicated that their company's organizational structure allows for full implementation of sustainable development management functions. Nearly a quarter (24.6%) reported that ESG-related functions are assigned to a dedicated unit, while 27.7% stated that these functions are decentralized across different departments. Meanwhile, a third of companies believe that their current organizational structure does not support the implementation of these functions. Out of 114 respondents, only 13 companies (11.4%) mostly large retail chains from Russia, Kazakhstan, and Belarus have clearly defined sustainable development goals integrated into their business strategies. More than a quarter of respondents indicated that while specific goals are not set, their company has declared a commitment to sustainable development. At the same time, a significant majority (61.4%) of the surveyed retail companies have not established any specific sustainability targets.

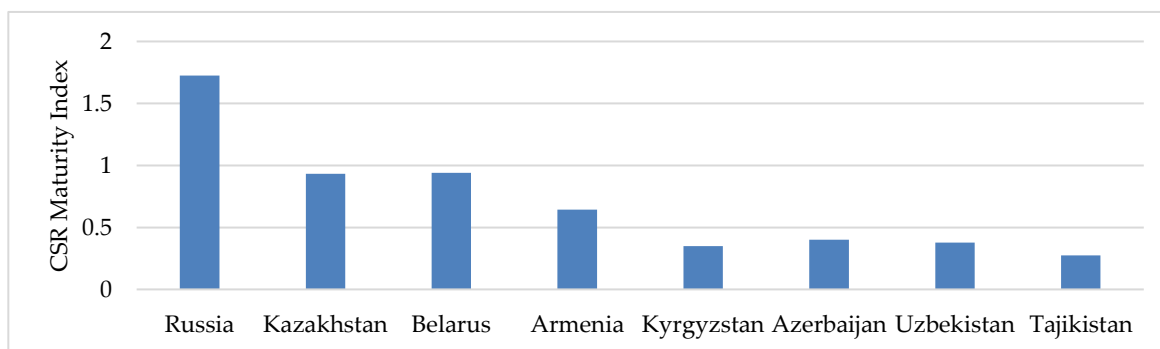
Formalized stakeholder engagement management in the trade sector is extremely underdeveloped: only 5.4% of respondents reported having a corresponding policy. More than a third of retailers have drafted a Stakeholder Engagement Policy, but have not yet set specific engagement objectives. The survey results also revealed growing interest among retailers in evaluating the sustainability of suppliers and establishing standards for responsible supply chains. 78.9% of the companies surveyed have set CSR/sustainability requirements for suppliers, and 19.3% have introduced standards for responsible supply chains. More than a quarter of companies (25.4%) conduct regular audits of suppliers and contractors for compliance with quality requirements, internal environmental standards, raw materials, and so on.

One of the strengths of the surveyed enterprises is their fairly active participation in social projects aimed at local community development. Specifically, 74.6% of respondents noted that their companies implement social and charitable programs for the population in the regions where they operate. Approximately 84.2% of companies reported participating in partnership programs with SMEs, farmers, and local producers, either on a regular or occasional basis. According to the survey results, 15.7% of companies have a share of local products exceeding 30%. Among the weaknesses of social practices in the trade sector are the relatively high staff

turnover rates and comparatively low wages. Only 21.9% of companies have a staff turnover rate below the industry average.

Wages for frontline staff exceed the national average wage only in 7.9% of the surveyed companies. Additionally, the companies demonstrated a low level of employee loyalty: only 17.4% of respondents reported an Employee Net Promoter Score (eNPS) higher than 30%. It is worth noting that the results indicate fairly active participation of retail companies in promoting public health and a culture of healthy eating. The survey shows that approximately 51.8% of companies have established and adhere to high standards for product safety and quality. Only two respondents (1.8%) from Uzbekistan and Tajikistan reported a lack of safety and quality standards. However, the survey also revealed that a large number of retailers (51.8%) do not plan to expand their range of healthy lifestyle products. Only 21.9% of companies indicated plans to expand their assortment of health-focused products. Criteria for healthy lifestyle products include gluten-free products, products with no added sugar, organic products, farm-sourced products, products with natural ingredients, high-protein products, low-calorie products, and vegan products.

Weak aspects of sustainable development in the trade sector include the implementation of environmental practices related to responsible consumption and resource use. Only 11% of companies have introduced lean production technologies, and the share of companies engaged in food waste recycling projects does not exceed 7%. This is largely due to the fact that most companies only implement isolated resource efficiency measures within broader programs. The study shows that despite the growing interest in responsible business practices, the majority of trade sector companies are still at the early stages of transforming their corporate social responsibility agenda (Figure 1).



Note: 0 – CSR transformation has not started; 3 – full implementation of sustainable development principles.

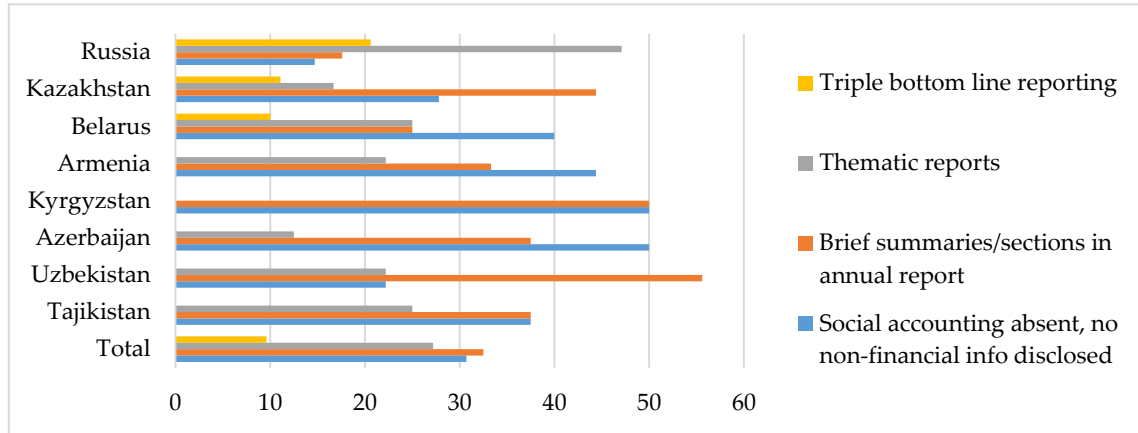
FIGURE 1. Level of CSR maturity in trade sector companies on a 0–3 scale.

As seen in Figure 1, trade sector companies in Russia demonstrate a higher level of maturity in integrating the CSR agenda. The CSR maturity levels of companies in Kazakhstan and Belarus are approximately equal and fall into the medium range. Companies in the other countries of the trade sector show a low level of implementation of sustainable development and CSR practices.

2. ASSESSMENT OF NON-FINANCIAL INFORMATION QUALITY FOR INTERNAL CSR AUDIT

Survey results indicate that, despite growing interest in CSR practices, the level of non-financial information disclosure in retail companies remains extremely low. Only 24.6% of the surveyed companies generate and regularly publish reports openly. Another 22.8% track non-financial indicators but produce internal reports only, which are not made public. About 9.6% of companies prepare non-financial reports based on the “triple bottom line”, covering economic, social, environmental, and corporate governance aspects. Approximately 28.9% of companies prepare individual types of non-financial reports, but do not publish them publicly. The majority of surveyed retail representatives (32.5%) stated that certain CSR aspects are presented as brief summaries in the annual report, usually in a fragmented and general format.

It is also important to note that nearly one-third (30.7%) of retail companies do not conduct social accounting and do not generate non-financial reports (Figure 2). However, the absence of publicly available non-financial



reporting does not necessarily mean the complete absence of CSR practices, which may be implemented without formal public disclosure.

FIGURE 2. Types of non-financial reporting in the retail sector.

One of the weak points is the verification of non-financial reporting. Respondents' answers show that although companies have sustainability programs and produce non-financial reports, many of them still do not utilize the support of their internal audit departments for meaningful purposes. Specifically, 64.9% of respondents stated that internal audit in their companies does not participate in CSR matters at all (Figure 3).

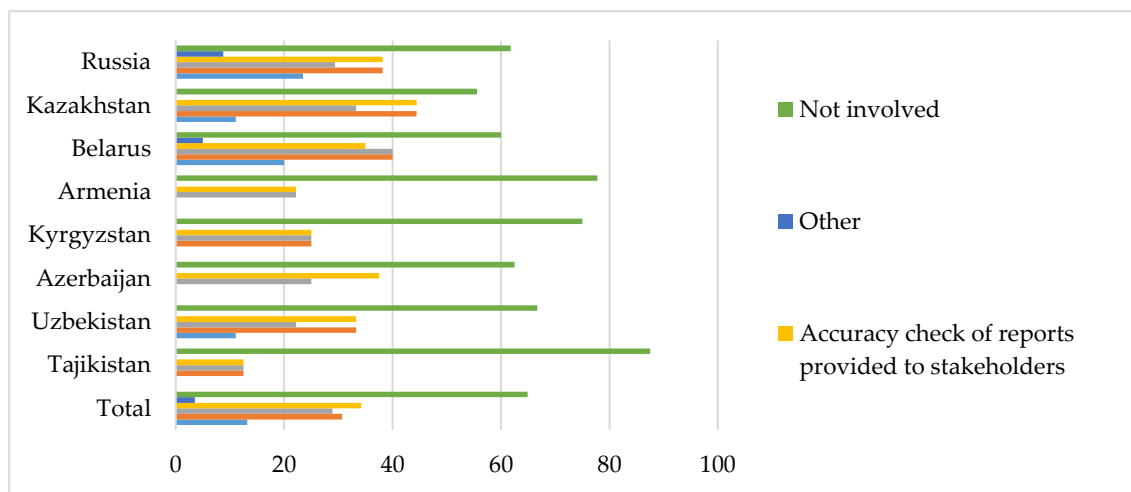


FIGURE 3. Participation of internal audit in the CSR program (Distribution of responses to the question: "How does internal audit participate in your company's CSR program?").

The country-level aggregated data used to examine the relationship between CSR maturity and the quality of internal audit of non-financial information are presented in Table 3.

Table 3. Country-Level aggregated data for regression analysis.

	Y	X1 – Availability and completeness of data for non-financial audit	X2 – Existence of formal rules and process automation	X3 – Professionalism and competence of internal audit staff	X4 – Organizational independence of internal audit	X5 – Application of non-standards for non-financial disclosure
Russian Federation	1.724	1.529	2	1.471	1.824	1.441
Kazakhstan	0.933	1.056	1.556	0.889	1.167	0.889
Belarus	0.94	0.8	1.4	1.3	1.05	1
Armenia	0.644	0.667	0.889	1.111	0.778	0.667
Kyrgyzstan	0.35	0.625	0.75	0.375	0.5	0.25
Azerbaijan	0.4	0.375	0.625	0.5	0.25	0.375
Uzbekistan	0.378	0.444	0.556	0.333	0.222	0.556
Tajikistan	0.275	0.125	0.375	0.375	0.25	0.625

The resulting model shows that none of the five independent variables meets the required significance level: their p-values exceed 0.05 (Table 4).

Table 4. Model 1: OLS, observations 1–8 used.

	Coefficient	Std. Error	T-statistic	p-value
Const	-0.198942	0.181896	-1.094	0.3882
X1	0.693065	0.538085	1.288	0.3266
X2	-0.072674	0.434294	-0.1673	0.8825
X3	0.119665	0.247611	0.4833	0.6766
X4	-0.0516312	0.588289	-0.08777	0.9381
X5	0.600333	0.300364	1.999	0.1837

As a result of the stepwise exclusion procedure, the reduced model retained two statistically significant predictors: availability and completeness of data for non-financial audit (X1) and application of standards for non-financial disclosure (X5) (Table 5).

Table 5. Model 2: OLS. observations 1–8 used.

	Coefficient	Std. Error	T-statistic	p-value
Const	-0.185464	0.0622791	-2.978	0.0309
X1	0.613746	0.112731	5.444	0.0028
X5	0.633783	0.129788	4.883	0.0045

Statistical indicators characterizing the quality of the model are presented in Table 6.

Table 6. Statistical indicators of model quality.

Mean of dependent variable	0.705500	Std. deviation of dependent variable	0.486998
Sum squared residuals	0.029817	Standard error of the model	0.077223
R-squared	0.982040	Adjusted R-squared	0.974855
F(2,5)	136.6952	P-value (F)	0.000043
Log. likelihood	11.01693	Akaike criterion	-16.03386
Schwarz criterion	-15.79553	Hannan–Quinn criterion	-17.64126

The magnitude of the coefficients also indicates practical significance. Since the CSR maturity index and internal audit quality indicators are measured on a 0–3 scale, a one-point increase in the availability and completeness of non-financial data is associated with an increase of approximately 0.614 points in the CSR maturity index. Similarly, a one-point increase in the application of non-financial disclosure standards is associated with an increase of approximately 0.634 points in CSR maturity. Thus, improvements in data completeness and reporting standardization represent substantial changes in CSR maturity, not only statistically significant relationships.

The final model demonstrates high explanatory power, with R-squared = 0.982 and adjusted R-squared = 0.975. The collinearity diagnostics do not indicate severe multicollinearity between the retained predictors (Table 7). However, given the small number of country-level observations, the results should be interpreted as evidence of statistical association rather than strict causal effects.

Table 7. Belsley-Kuh-Welsch collinearity diagnostics.

Lambda	Cond	Const	X1	X5
2.812	1.000	0.022	0.011	0.008
0.146	4.388	0.859	0.171	0.031
0.042	8.213	0.119	0.819	0.961

First, sensitivity tests were performed to assess the robustness of the estimated reduced model through re-estimation using HC3 robust standard errors, which are widely used in small samples. The coefficients of the important predictor variables remained positive and statistically important in the new model equation: availability and completeness of the non-financial data (X1; $\beta = 0.614$, $p = 0.0012$) and application of the non-financial disclosure standards (X5; $\beta = 0.634$, $p = 0.0015$). A leave-one-out procedure of estimating the reduced model eight times, each time deleting one country-level observation, suggests that the effects of X1 and X5 on the outcome are between 0.549 and 0.666, and between 0.561 and 0.687, respectively. All coefficient estimates in these specifications are positive. This suggests that the results presented are not driven by a single observation, but the results should be interpreted cautiously given the small number of aggregated country-level observations.

Thus, the analysis indicates a positive association between CSR maturity and two factors characterizing the quality of internal audit of non-financial information: the availability and completeness of non-financial data (X1; $\beta = 0.614$, $p = 0.0028$) and the application of non-financial disclosure standards (X5; $\beta = 0.634$, $p = 0.0045$). The remaining factors formalized rules and process automation (X2), staff competence (X3), and organizational independence of internal audit (X4) were not statistically significant.

VI. DISCUSSION

The results of our study show that CSR practices in the trade sector of post-Soviet countries are unevenly developed and, in many cases, weakly institutionalized. Wholesale companies in the sample demonstrate the lowest level of CSR formalization: many of them do not have a clear CSR policy, do not implement CSR standards in their operations, and have not established sustainable development goals. More visible progress is observed among food and non-food retail chains, especially in Russia, Kazakhstan, and Belarus. These findings are consistent with earlier studies showing that large retailers respond to the trend of responsible

consumption, but often apply CSR tools in an unsystematic manner and as one-off projects rather than as part of an integrated sustainability strategy [54]. Our results also confirm previous findings that consumer responsibility, product safety, and food security are among the key CSR priorities in retail [55, 56]. Most surveyed companies reported efforts to improve product quality control and protect consumers from dishonest producers. In addition, some companies set minimum markups on socially significant goods to support socially vulnerable groups.

The results also support the view that retail companies play an important role in the circular economy. Although the current level of retailer engagement in reuse, recycling, and food waste reduction remains low, the survey indicates gradual growth in these practices. For food retail companies, food sharing is one of the promising tools of responsible waste management. Within this initiative, a retailer independently or through charitable organizations distributes unsold near-expiry food products to people in need. However, our findings show that food sharing in the post-Soviet space is still at an early stage compared with other forms of food assistance. This is consistent with research indicating that near-expiry food can be used more effectively rather than discarded [57]. Our findings also confirm that recycling of materials and secondary waste in retail remains underdeveloped [58]. At the same time, recycling programs are becoming more visible, especially among non-food retail companies that organize the collection of appliances, phones, clothing, and other goods from consumers. This supports the argument that business involvement in the circular economy is not only a form of social responsibility, but also a potentially profitable model that can help companies reduce costs or generate additional value.

Another important direction of CSR development in the trade sector is the promotion of responsible consumption and healthy lifestyles. Previous studies and market reports indicate growing consumer demand for fresh, natural, and health-oriented products [59–61]. Our survey results partly confirm this trend: fresh products are present in the assortment of almost every food retail chain in the sample. However, more than half of food retailers do not plan to expand their fresh product offerings. This may be explained by the short shelf life of such products, complex supply chain logistics, storage limitations, and high write-off risks. Thus, although companies recognize the importance of healthy consumption, operational constraints limit the expansion of this CSR direction. Corporate philanthropy and volunteering are also spreading across post-Soviet countries, although to different degrees. These practices are increasingly used not only as social initiatives, but also as tools for strengthening employee motivation, engagement, and team cohesion. Our results indirectly support studies showing that corporate volunteering can improve employee loyalty and help employees develop job-relevant skills and competencies [62, 63]. However, the low levels of employee loyalty and relatively high staff turnover identified in our survey indicate that CSR-related HR practices in the trade sector are still insufficiently developed.

The study also shows substantial differences between countries in the disclosure of non-financial information and the transparency of CSR practices. CSR and non-financial reporting practices are most developed in Russia, while in other post-Soviet countries these processes are developing more slowly. The number of companies that prepare and publicly disclose non-financial reports remains limited. This finding is consistent with Fan T. T. K., who emphasizes the low level of assurance and quality of non-financial reporting [64]. Our results suggest that this conclusion is also applicable to trade sector companies in post-Soviet countries. The regression results provide a more specific explanation of the relationship between internal audit quality and CSR maturity. The reduced model shows that CSR maturity is positively associated with the availability and completeness of non-financial data ($X1$; $\beta = 0.614$, $p = 0.0028$) and the application of non-financial disclosure standards ($X5$; $\beta = 0.634$, $p = 0.0045$). These findings confirm prior studies emphasizing that the quality of non-financial reporting depends on the availability of reliable sustainability-related data and the use of standardized disclosure approaches [41, 42, 51–53, 64].

At the same time, our results do not confirm a statistically significant relationship between CSR maturity and three other dimensions of internal audit quality: formalized rules and process automation ($X2$), professionalism and competence of internal audit staff ($X3$), and organizational independence of the internal audit function ($X4$). This result does not mean that these factors are unimportant for audit quality. Rather, it suggests that in the context of trade companies in post-Soviet countries, these factors may not be sufficient to

increase CSR maturity unless companies first ensure the availability of complete non-financial data and apply clear disclosure standards. This finding partly contrasts with studies that emphasize the role of auditor competence, professional development, organizational independence, and effective structuring of the internal audit function in improving audit quality and the reliability of non-financial reporting [43, 45–50, 65]. We do not dispute these conclusions. However, our results indicate that these characteristics of internal audit may influence CSR maturity indirectly. In institutional contexts where non-financial reporting practices are still developing, data completeness and reporting standardization appear to be more important immediate conditions for CSR maturity than formal audit independence or staff competence alone.

The positive association between CSR maturity and the availability of non-financial indicators also supports the conclusions of Saprykina O. A., Fadeikina N. V., and Krasnova M. V., who argue that the development of accounting and analytical systems for social accounting requires further research [65]. Existing accounting systems in many post-Soviet countries are primarily oriented toward financial and bookkeeping reporting and are not fully suitable as comprehensive sources of data for non-financial reporting. This limits companies' ability to measure, compare, and verify CSR-related indicators. Therefore, one of the key barriers to CSR maturity in the trade sector is the underdevelopment of methodological approaches to non-financial indicator accounting. Future research should focus on developing systematic models for tracking recommended indicators for non-financial reports, as well as clear algorithms for calculating and verifying these indicators. Such models would help companies transform fragmented CSR practices into measurable and auditable sustainability processes.

Finally, the study revealed a strong positive association between CSR maturity and compliance with non-financial disclosure standards. In the surveyed post-Soviet countries, there is still no unified approach to non-financial information disclosure, and regulatory development in this area remains at an early stage. Further efforts of the expert community should therefore be directed toward harmonizing non-financial reporting standards. This would improve the comparability, reliability, and usefulness of non-financial data. By verifying compliance with established standards, internal auditors can contribute to producing accurate and complete information that meets the needs of stakeholders. The findings should be interpreted with two limitations in mind. First, the empirical data are based on survey responses and may therefore be affected by response bias and social desirability bias; second, the regression analysis uses country-level aggregated cross-sectional observations, which limits causal interpretation and does not fully capture company-level heterogeneity or long-term dynamics.

Future research should focus on developing systematic models for tracking recommended indicators for non-financial reports, as well as clear algorithms for calculating and verifying these indicators. Further studies could also use longitudinal company-level data, apply panel or multilevel models, and compare trade sector companies with firms from other industries or other emerging markets. In addition, future research should consider the role of broader institutional, regulatory, and macroeconomic factors, since differences in non-financial reporting regulation and ESG maturity across countries may influence CSR maturity independently of internal audit quality. Such research would help companies transform fragmented CSR practices into measurable and auditable sustainability processes and would contribute to the harmonization of non-financial reporting standards.

VII. CONCLUSION

While the international community has extensive experience in disclosing information on corporate social responsibility, such practices have not yet become widespread in most post-Soviet countries, and the level of non-financial information disclosure remains low. Currently, researchers are increasingly focusing on the issue of inaccuracy in non-financial reporting, which poses significant risks for stakeholders. Internal audit plays a key role in addressing these challenges. Based on a review of existing literature and theoretical analysis, we identified five CSR thematic areas in the context of sustainable development in the trade sector, which form the basis for calculating the CSR Maturity Index. In addition, the theoretical significance of our study lies in identifying the factors that characterize the quality of internal audit of non-financial information. We believe

that our research helps to partially fill a gap in the academic literature concerning the relationship between the quality of internal audit and CSR maturity level. The results of our analysis generally confirmed the research hypothesis and demonstrated that the availability and completeness of non-financial data and the application of reporting standards are positively associated with CSR maturity. It is highly likely that the relevance of empirical studies on the role of internal audit in enhancing non-financial reporting quality and the dissemination of corporate social responsibility practices will continue to grow.

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Author Contributions

Conceptualization, A.T., G.A., and I.D.; methodology, A.T. and G.A.; formal analysis, A.T.; investigation, A.T., G.A., and I.D.; data curation, A.T.; writing—original draft preparation, A.T.; writing—review and editing, G.A., N.K., R.S., N.M., and M.Z.; supervision, G.A.; project administration, G.A. All authors have read and agreed to the published version of the manuscript. All authors made an equal contribution to the development and planning of the study.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data are available from the authors upon request.

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