

# IMPACT OF REGULATORY REQUIREMENTS ON ENTITIES NON-FINANCIAL REPORTING: THE CASE OF UKRAINE

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**Abstract:** *In today's environment of uncertainty and rapid change in the business environment (VUCA), there is a need to find effective solutions to global problems. The solution to urgent global problems facing Ukraine and the world depends on the orientation of business entities on the path to sustainable development. Ukraine has recently joined the countries with legislation requiring companies to compile and publish a management report. Therefore, determining the impact of institutional factors in ensuring the level of transparency and accountability of business organizations in countries with economies in transition in the context of SDGs' attainment is now important. The core task of the study is to assess the dynamics of disclosure by certain enterprises of non-financial data, including the impact on the economy, environment and society, before and after the adoption of relevant regulations; to substantiate conclusions and suggest solutions to identified problems.*

**Keywords:** *Non-financial reporting, Directive 2013/34/EU, Directive 2014/95/EU, Management report, Extractive industry entities, ESG reporting area.*

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## 1. INTRODUCTION

Dissemination of the corporate disclosure practice on risks of the negative impact of business activities, as well as the risks that create changes in the external environment for companies, contributes to the formation of a global information space. Its structure is formed based on world-wide-known international initiatives focused on the priority of disclosure of the economic, social, environmental and governance components of business activities. Various documents aimed at streamlining disclosure at both the international, national or sectoral levels produce a similar set of information through a recommended list of indicators, methodologies for their calculation and aggregation. Statements prepared in compliance with such recommendations reveal the company's values, model of management, compliance of its strategy with the achievement of sustainable development, economic, environmental and social consequences of companies' activities.

Within the current situation, there is a necessity for entities to improve the quantity, quality and comparability of the disclosure of relevant information in order to meet the needs of investors and other stakeholders.

The mentioned above confirms the key challenge to be addressed: to ensure the disclosure of quality data on the private sector entities' activities (this includes the usefulness and comparability of such information, its consistency with existing institutional frameworks).

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This work is aimed at finding tools for helping companies to disclose the principles of sustainable development and their efforts to counteract the crisis. This will contribute to social cohesion in addressing global challenges, raising awareness of how companies respond to the pandemic and ensuring sustainable development.

In terms of structure, this article is organized into 6 sections. Section 1 is the current introduction. Section 2 presents a Literature Review of studies devoted to the current state of non-financial reporting regulation and its impact on the number and quality of non-financial reports published by private sector entities. Section 3 describes the research design and methodology. Section 4 contains general research results and substantiation for developed by authors index of industry disclosure of non-financial data. Section 5 provides readers with a discussion on the novelty of obtained results and their comparison with current existing studies and practices. Section 6 contains the conclusions of the study.

## **2. LITERATURE REVIEW AND PROBLEM STATEMENT**

The theory and practice of non-financial reporting concern an increasing number of companies joining the current trends of disclosure on sustainable development. Representatives of the scientific community take care of the development, implementation and improvement of private sector entities' non-financial reporting. Thus, researchers from different countries study the following issues: implementation of non-financial reporting (Adai, 2020; Crowther, 2017; Vukić and others, 2019), scope and prospects of its implementation and the impact of non-financial disclosure on corporate social responsibility (Zheng, 2019; Slacik, 2019); scientific models of reporting taking into account the conceptual approaches to the development of accounting in the world and companies' non-financial reporting practice (Stolowy, 2018; Iefymenko and others, 2015). Also, researchers highlight the problems of the formation of strategic reporting by industrial enterprises (Asif, 2013; Kryshtopa, 2014) and the need for information to quantitatively assess investment risks (Boiral, 2018; Baumüller, 2018; Riepina and others, 2019). The assessment of types and quality of non-financial reports, progress and obstacles in their implementation, improvement of the content of reports are studied by authors (Hassan, 2020; Oliinyk, Kucheriava, 2019; Oliinyk and others, 2020; Iefymenko and others, 2017).

Discussions on the status and development of non-financial reporting allow us to form the view on the approaches to the formation of the theoretical and methodological background of non-financial reporting (Mion, 2019; Kumar, 2019). The international professional community is actively involved in addressing data related to climate change, environmental protection, natural resource management, labor protection, gender equality, etc.

An example of reporting approaches alignment is the EU's disclosure requirements for non-financial reporting by enterprises on their contribution to climate change prevention. As stated in the recent European Green Deal Communication, the European Commission expects companies and financial institutions to improve their non-financial information. The main users of such information are investors and civil society organizations that need a deeper understanding of the performance of financial and non-financial companies, as well as their social and environmental impact (European Commission, 2019).

Following online consultations on corporate reporting for 2018 and online targeted consultations on climate-related reporting, the European Commission launched a new public consul-

tation in May 2020. This reflects the general trend of various organizations and stakeholders calling for a new regulatory approach in the area of non-financial reporting.

The trend of non-financial reporting of private sector entities is to ensure the disclosure of quality information on climate issues. Thus, in 2019, the European Commission, Communication C(2019)4490, amended Guideline 2017/C215/01 in terms of climate disclosure (European Commission, 2019). The document was prepared in accordance with Article 2 of Directive 2014/95/EU in order to assist interested companies in disclosure of relevant, useful, consistent and comparable non-financial information. The notification from the European Commission contains optional instructions and does not create any new obligations.

Thus, at present time, there is no single approach among researchers and professional practice communities for the common model for disclosure of qualitative, comparable information on sustainable development and the risks posed by companies. These aspects need further research in order to develop a list of agreed indicators that will be disclosed in non-financial statements and universal methods of their calculation. This will ensure accountability and transparency of companies' reporting and allow to build the appropriate level of users' trust, to involve them in cooperation and to strengthen the responsibility in the area of sustainable development.

The main source of information for the formation of macro-indicators on achievement of sustainable development and overcoming the consequences caused by the pandemic are entities' data (various types of non-financial reports). The rules regulating the preparation of non-financial reporting are the institutional basis for non-financial reporting, while they form the basis for cooperation between entities that form policy in the field of sustainable development. This allows us to formulate the main hypothesis of the presented study. Hypothesis (H): the quality of companies' disclosure on the impact of socio-economic aspects of their activities in the countries with economies in transition depends on the application of mandatory and encouraging methods of legal regulation. The last includes the detailed regulation of the behavior of participants in legal relations and the development of conditions of obtaining the benefits by companies from compliance with the regulation.

Proof of the hypothesis consists of two general parts: the first - review of documents and initiatives issued by international professional organizations; the second - empirical analysis of the practice of private sector entities' non-financial reporting. Ukrainian extractive industries companies are a representative object for such research. After all, the extractive industry is budget-generating and extractive companies have a long experience in transparency practice through joining the Extractive Industries Transparency Initiative (EITI). Since 2013, Ukraine has been preparing a report. Therefore, extractive industries companies are not only the object of constant attention from society but are the leaders in the information provided about their activities' impact on the economy, environment and society.

### **3. RESEARCH DESIGN, METHODOLOGY AND DATA PROCESSING**

In Ukraine, very strong challenges have been formed and manifested in the proactive search and implementation of standards designed to create the institutional basis for increasing the responsibility, transparency and accountability of enterprises through the implementation of international documents in the area of non-financial reporting. In pursuance of Ukraine's commitment to implement the provisions of Directive 2013/34/EU, in 2017 requirements for the disclosure of cer-

tain types of enterprises financial and non-financial information in the management report have been introduced into the national legislation (provisions of Directive 2013/34/EU implemented in the Law of Ukraine “On Accounting and Financial Reporting in Ukraine” dated 16.07.1999 № 996-XIV). Soon after that, in 2018, the Ministry of Finance of Ukraine has set requirements for its content through the approval of Guidelines for the preparation of the management report (Methodology). Thus, in Ukraine, it is necessary to prepare management reports for all large and medium-sized enterprises. Also, the requirements for its content and structure are defined. According to legislation, a management report is a document that contains both financial and non-financial information characterizing the state, prospects, general risks and uncertainties of the enterprises’ activities. The management report has to be submitted together with the financial statements and consolidated financial statements in the manner and within the time limits established by law. If the enterprise submits consolidated financial statements, a consolidated management report is submitted. Micro and small enterprises are exempted from submitting a management report. Medium-sized enterprises have the right not to reflect non-financial information in the management report. At the same time, management reports are not subject to verification and no penalties are imposed for non-submission. There is no special platform for collecting and publishing such reports, management reports together with financial statements are sent to the State Statistics Service. However, management report data are not taken into account within the formation of the Voluntary National Review on SDGs attainment progress. The purpose of this publication is to establish the interrelation between progress in the achievement of the balance among stakeholders, businesses, the state interests and the spread of non-financial reporting in countries with economies in transition from the regulation (the case of Ukraine).

The search for tools to establish the interrelation of companies’ disclosure of relevant high-quality information in the management report and the legislation was conducted in two stages.

At the first stage, the international documents in the area of non-financial reporting were analyzed (Section 2). At the next stage, it was studied how the introduction of national legal requirements in the area of non-financial reporting affected the content and number of companies publishing it. The analysis of dynamic was conducted (before the implementation of EU directive requirements into the legislation of Ukraine and after) in the following sequence.

1. *Selection of respondent companies.* The research of the state of non-financial reporting of extractive companies in Ukraine is representative. That is why we determined the next parameters for the pre-selection of companies: the company is established and located in Ukraine; the company has a practice of non-financial reporting; the company belongs to the extractive industry. For the analysis of non-financial reporting, we have selected extractive enterprises, included in the TOP - 100 largest taxpayers of Ukraine in 2018-2019 (according to the State Fiscal Service, the SFS). The extractive and energy companies are almost a third part (22 extractive companies and 10 energy companies) of the largest taxpayers in Ukraine. In addition, companies mostly in these industries have high risks of negative impact on the environment; that is why there is a steady interest in the activities of these companies from government agencies, investors, environmental organizations and the community. Also, according to the SFS, extractive industries are in third place in the top five industries by the payment of taxes to the country’s budget in 2020.
2. *Data collection and accumulation of information* were done using the investigation of non-financial reporting of respondent companies, the conceptual framework of their reporting. We have also analyzed accumulated information according to selected criteria

following the EU directive requirements for the ESG reporting (environment, social and personnel policy, human rights and the fight against corruption and bribery).

3. *Summarizing the results of expert evaluation of non-financial reports* of the selected companies in the context of compliance with national legislation and the EU directive requirements for disclosure of information in management report and other non-financial statements (if any) using review of practice, detection of peculiarities and general trends in company reporting.

*The sources of information* are non-financial reports of extractive companies for 2018-2019 from their corporate websites.

In the capacity of the *method of data collection*, we have chosen a systematic targeted observation during the investigation of the state of non-financial reporting of extractive enterprises and expert evaluation of the results.

*The empirical research* was conducted by assessing the compliance of non-financial reports of extractive industry enterprises included in the Register of the largest taxpayers, the requirements of national legislation and the provisions of mentioned EU Directives.

*The evaluation criteria* on which the observation is based are shown in table 1.

**Table 1.** Criteria for evaluation of non-financial reports of respondent companies

Criteria	EU directive provisions
Criteria 1: practice of non-financial report preparation (yes/no)	Directive 2013/34/EU (article 19) Directive 2014/95/EU (article 1) Guidelines on non-financial reporting (methodology for reporting non-financial information) (2017/C215/01) (hereinafter – Guidelines 2017/C215/01) (p. 4.1)
Criteria 2: inclusion of the description of entity’s existing business-model into non-financial report (management report) (yes/no)	Directive 2013/34/EU (article 19a, p. 1a) Directive 2014/95/EU (article 1) Guidelines 2017/C215/01 (p. 4.2)
Criteria 3: disclosure of ecological issues in non-financial report (yes/no)	Directive 2014/95/EU (article 1) Directive 2013/34/EU (article 19a)
Criteria 4: disclosure of social issues and elements of personnel policy in non-financial report (yes/no)	Guidelines 2017/C215/01 (p.4.2)
Criteria 5: disclosure of data on human rights, anti-corruption and bribery matters in non-financial report (yes/no)	

**Source:** Prepared by the authors

**Research limitation.** The fact that one analyzes the formal level of compliance of the enterprise’s non-financial report (in particular the management report) with the EU Directives’ requirements is the key limitation and caveat during the conduction of empirical research. At the same time, the authors do not assess the quality of data disclosed by the surveyed enterprises.

#### 4. RESEARCH RESULTS

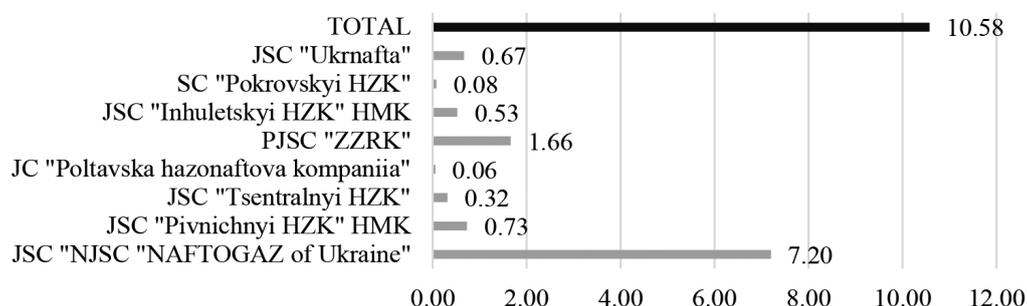
Extractive companies are at the forefront of Ukrainian enterprises concerning disclosure of sustainable development indicators in non-financial reporting. This trend has been observed since 2014 and has only expanded in recent years. The activity of extractive industry enterprises

in the field of reporting is a kind of response to the widespread and growing criticism of their numerous business processes by individuals who have a legitimate interest in the activities of extractive industry companies (hereinafter - stakeholders).

Historically, natural resources have been unevenly distributed among countries. Ukraine is rich in natural capital (mineral, climatic, land, forest, water resources, etc.). Among 120 types of minerals consumed by mankind, 117 can be found in Ukraine (Mineral resources of Ukraine, 2020). Ukraine took 28th place in the world ranking of extractive countries in the report of World Mining Data 2019, which was prepared by the international organizing committee of the World Mining Congress according to the results of 2017. Production volume is estimated at 88.6 million tons and \$ 10.6 billion (International Organizing Committee for the World Mining Congress, 2019).

The extractive industry is of strategic importance for the economy of Ukraine. The volume of sold products of the extractive industry for 11 months of 2019 amounted to \$ 14.2 billion (16% of sales of all industrial products), 25% of products of the extractive industry were exported, according to data of State Statistics Service of Ukraine.

In 2018, the fee for the use of subsoil amounted to 5% of state budget revenues, and 16 companies-subsoil users are in the TOP-100 taxpayers according to the State Fiscal Service. At the same time, 10.58% of the structure of Ukraine's GDP in 2018 belongs to the net income from sales of seven enterprises of the extractive industries, which have prepared non-financial reports (including management reports) in 2019 (Figure 1).



**Figure 1.** The share of net revenue of extractive industry enterprises (which prepared non-financial reports in 2019) in the GDP of Ukraine for 2018, %.

**Source:** Calculated by the authors according to the financial statements of the surveyed enterprises.

The demand for exhaustible natural resources of countries with a developed economy, which export mainly complex products, provokes an increase in demand for raw materials (iron ore, non-ferrous metal ores, oil, gas, roundwood). Ukraine is rich in it. This causes a steady increase in the share of natural resources in Ukraine's export and the fall of the domestic economy into the so-called "natural trap". Thus, for 11 months of 2019, the total export of minerals amounted to 51 million tons amounting to \$ 4.2 billion.

This, at first glance, gives the domestic economy a competitive advantage and can provide sustainable economic growth, as it provides significant opportunities for the collection of natural rents. However, the excess profits from the export of natural resources lead to the formation of powerful business groups whose economic interests are aimed at obtaining rent. These are the main features of the "rent economy". The dominance and satisfaction of the needs of such

organizations is caused by the facts of non-transparency and fraud concerning the collection of rents and other payments to the government by enterprises engaged in the extractive industry.

At the same time, companies of this industry today have low level of investment, non-transparent extracting of minerals, protectionist policies of state support, and low level of interrelations with other sectors of the economy. The extractive industry diverts financial resources and human capital, which, otherwise, could ensure the growth and renewal of other industries. Thus, extracting and processing minerals are associated with 48% of the country's industrial potential and up to 20% of its labor resources.

Transparency of activity of enterprises of the extractive industry can be ensured through the disclosure of information on the state of the country's extractive sector according to indicators of ESG reporting areas (environment, social and personnel policy, human rights and the fight against corruption and bribery). Thus, in the context of growing attention to non-financial reporting, the introduction of the management report in the context of adaptation of national legislation to the EU requirements at the regulatory level has become a trigger for a rapid increase in the number of extractive companies that began to prepare non-financial reporting, including the management report.

According to the results of the conducted research, it was detected that 32 companies belong to the field of extractive industry and energy among the 100 largest taxpayers in Ukraine in 2018. Among them, only 8 companies of the extractive industry, which were the subject of the study, have prepared and published non-financial reports. 18 companies that belong to the field of extractive industry were among the 100 largest taxpayers in Ukraine in 2019, among them only 4 companies prepared non-financial reports (3 management reports).

The reduction in the number of management reports, according to the authors, is caused by several factors. First, the spread of the COVID-19 pandemic and the quarantine forced some companies to stop preparing non-financial reports. Second, only a small number of Ukrainian companies have the consistent practice of preparing non-financial reports, most of which are prepared in accordance with international standards. According to a study conducted by the Center for the Development of Corporate Social Responsibility, non-financial reporting in Ukraine among the 100 largest companies in Ukraine in 2014 was prepared by 14 companies, in 2015 - 17, in 2016 - 12, in 2017 – 16 (Zinchenko and others, 2018).

13 non-financial reports of various formats and 31 management reports were prepared in 2019. Another part of the companies formally prepared their reporting. In addition, the regulations of Ukraine do not contain provisions on the responsibility of the authorities for the collection and analysis of management reports. Third, there is the actual lack of public pressure on large companies, including extractive, to increase the level of transparency in their activities.

The initial retrospective analysis of the practice of non-financial reporting of extractive industry companies showed that only 8 companies among 22 companies had the practice of preparing non-financial reporting in 2019 and 4 companies in 2020 (Table 2). Among 8 surveyed companies only JSC "NJSC "NAFTOGAZ of Ukraine has a long practice of activities' non-financial aspects disclosure (Table 2).

**Table 2.** Dynamics of preparation and publication of non-financial reports by the investigated enterprises of the extractive industry of Ukraine

No	Company's name	Preparation of non-financial reports					
		2014	2015	2016	2017	2018	2019
1.	JSC "NJSC "NAFTOGAZ of Ukraine"	yes	yes	yes	yes	yes	yes
2.	JSC "Pivnichnyi HZK" HMK	no	no	no	no	yes	yes
3.	JSC "Tsentralnyi HZK"	no	no	no	no	yes	yes
4.	JC "Poltavska hazonaftova kompaniia"	no	no	no	no	yes	yes
5.	PJSC "ZZRK"	no	no	no	no	yes	no
6.	JSC "Inhuletskyi HZK" HMK	no	no	no	no	yes	no
7.	SC "Pokrovskyi HZK"	no	no	no	no	yes	no
8.	JSC "Ukrnafta"	no	no	no	no	yes	no
<b>TOTAL (number of reports):</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>4</b>

**Source:** Prepared by the authors according to the corporate sites of the surveyed enterprises.

Among the 8 companies, whose reporting was studied, 6 prepared a non-financial report for the first time in 2019 (for 2018) (see Table 2).

Analysis of the institutional framework for preparation non-financial reporting of the investigated group of enterprises showed that in 2018 in the capacity of the key framework we can name national regulations: The Law of Ukraine "On Accounting and Financial Reporting in Ukraine" of 16.07.1999 № 996-XIV, The Order of the Ministry of Finance of Ukraine of 07.12.2018 № 982 (table 3).

**Table 3.** Institutional framework for preparation of non-financial reporting by the investigated enterprises of the extractive industry of Ukraine

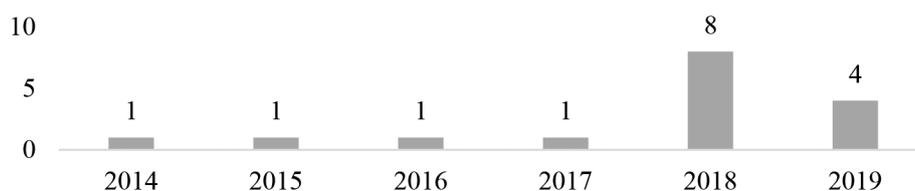
No	Company's name	Framework for non-financial reporting, applied by the company (name of the document, international initiative)					
		2014	2015	2016	2017	2018*	2019
1.	JSC "NJSC "NAFTOGAZ of Ukraine"	GRI	GRI	GRI	GRI	GRI, the Law No №996-XIV, the Order No 982**	GRI
2.	JSC "Pivnichnyi HZK" HMK	-	-	-	-	the Law No №996-XIV, the Order No 982**	the Law No №996-XIV, the Order No 982**
3.	JSC "Tsentralnyi HZK"	-	-	-	-	GRI, the Law No №996-XIV, the Order No 982**	the Law No №996-XIV, the Order No 982**
4.	JC "Poltavska hazonaftova kompaniia"	-	-	-	-	the Law No №996-XIV, the Order No 982**	the Law No №996-XIV, the Order No 982**
5.	PJSC "ZZRK"	-	-	-	-	the Law No №996-XIV, the Order No 982**	-
6.	JSC "Inhuletskyi HZK" HMK	-	-	-	-	the Law No №996-XIV, the Order No 982**	-
7.	SC "Pokrovskyi HZK"	-	-	-	-	the Law No №996-XIV, the Order No 982**	-
8.	JSC "Ukrnafta"	-	-	-	-	the Law No №996-XIV, the Order No 982**	-

**Source:** Prepared by the authors according to the corporate sites of the surveyed enterprises.

**Notes:** \* After implementation of the provisions of the Directive 2014/95/EU in Ukraine;

\*\* The Law of Ukraine "On Accounting and Financial Reporting in Ukraine" of 16.07.1999 No 996-XIV, The Order of the Ministry of Finance of Ukraine of 07.12.2018 № 982.

Analysis of preparation of non-financial statements by Ukrainian extractive enterprises showed that the number of non-financial reports (including management report) increased after the adoption of the Resolution of the Cabinet of Ministers of Ukraine on amendments to the Law №996-XIV and approval by the Ministry of Finance of Ukraine of Methodological recommendations for the preparation of the management report in 2019, and decreased in 2020 (Figure 2).



**Figure 2.** Number of non-financial reports published by the investigated group of enterprises, units

**Source:** Prepared by the authors according to the corporate sites of the surveyed enterprises.

It is too early to state about large-scale growth, but it can be concluded that the first hypothesis of our study has been confirmed and the level of preparation of non-financial reporting by companies depends on the institutional environment of such reporting. First of all, this is caused by the lack of an effective mechanism for collecting, processing and monitoring compliance with the law on non-financial reporting of enterprises. An example is the case of Ukraine as a country with an economy in transition. In the context of the implementation of EU directive requirements in Ukraine, non-financial reporting of enterprises has been approved at the legislative level. This determines the conceptual basis for the disclosure of information on the non-financial aspects of activities. An important next step towards the formation of the effective mechanism for non-financial reporting in Ukraine is to develop its regulatory and organizational framework through:

- identification of procedures for collection, processing and accumulation of enterprises' non-financial reporting data;
- formation of the effective model of interaction between the subjects of non-financial reporting in Ukraine (from the micro to the macro level, from the preparers to the policy-makers in the area of accounting and reporting);
- establishment of directions of use of non-financial reporting data as the important source for generalization of the information for the purpose of: formation of macroeconomic indicators of social and economic development of the country and regions within the realization and monitoring of SDGs achievement; assessment of the effectiveness of the use of national wealth and the contribution of enterprises to the development of the state social and economic environment;
- development of methodological basis and substantiation of organizational and methodological approaches to the establishment of enterprises' non-financial reporting quality control.

The lack of a clear deterministic mechanism for oversight over non-financial reporting and the quality of the data presented makes it impossible to aggregate report data at the sectoral and national levels. For example, some listed companies comply with the requirement to prepare a management report formally by including in the annual information at the request of the National Securities and Stock Market Commission. Thus, there is a substitution of concepts: the corporate governance report (which is part of the management report in accordance with the requirements of Directive 2014/95/EU) is called the "management report" in the annual information of issuers (for example, the annual report of JSC "NJSC "NAFTOGAZ of Ukraine" for 2019).

Non-financial information is disclosed by companies in various reports. Such reports differ in name, form, content and format of preparation. The most common reports: Sustainability Report, Corporate Social Responsibility Report, Integrated Report, Progress Report, Management Report, etc.

The analysis of the information presented in the reports on environmental, social and personnel aspects and the fight against corruption and bribery showed that the level and quality of information disclosure on these aspects is different.

Determining the level of compliance of surveyed enterprises' non-financial reports with the requirements of Directive 2014/95/EU is based on determining the index of industry disclosure of non-financial data  $I_{IDND}$ .

The main limitation is that the binary rating scale "1/0" is used for the assessment system. The basic reference value for the evaluation of each criterion is "1". Therefore, the overall average value, taking into account the estimates obtained for each enterprise of the surveyed group, will determine the level of compliance with the criteria for evaluation of non-financial statements defined in Table 1. Compliance with each of the five criteria is estimated at 1 point, non-compliance - 0 point.

The procedure for determining the indicator:

- 1) calculation for each group of criteria of the average value of the received estimations;
- 2) calculation of the non-financial data disclosure index by industry:

$$I_{IDND} = \sum_{i=1}^n a_i x_i \quad (1)$$

Where  $I_{IDND}$  – index of industry disclosure of non-financial data;

$x_i$  – the average value of the  $i$  group of criteria;

$a_i$  – weighting factor of the  $i$  group of criteria;

$n$  – the number of groups of criteria (for the purposes of this study, the number of groups of criteria is 5, see table. 1).

In expanded form, the above formula (1) will look like:

$$I_{IDND} = 0,6x_1 + 0,1x_2 + 0,1x_3 + 0,1x_4 + 0,1x_5 \quad (2)$$

where  $I_{IDND}$  – index of industry disclosure of non-financial data;

$x_1$  – the average value of the criterion "Practice of non-financial report preparation";

$x_2$  – the average value of the criterion "Business model description";

$x_3$  – the average value of the criterion "Disclosure of ecological data";

$x_4$  – the average value of the criterion "Disclosure of social issues and elements of personnel policy";

$x_5$  – the average value of the criterion "Disclosure of data on human rights, anti-corruption and bribery matters".

The weights of the obtained average values for groups of criteria within the indicator in the work were calculated using Fishburne's rule, in which the largest value of the weighting factor was assigned to the value of estimates by the criterion "Non-financial report" - enterprises of the extractive industry and identification of factors influencing it.

Table 4 presents the results of the initial analysis of compliance of non-financial reports of surveyed enterprises with the requirements of Directive 2014/95/EU (based on non-financial reports prepared for 2018), which were formalized for the study in the form of criteria (see Table 1).

**Table 4.** Compliance of non-financial reporting (management reports) of the investigated enterprises of the extractive industry for 2018 with the EU Directive requirements in terms of disclosure of information according to ESG spheres

No	Company's name	Non-financial reports' evaluation criteria				
		Preparation of non-financial report, $x_1$	Business model description, $x_2$	Disclosure of ecological data, $x_3$	Disclosure of social issues and elements of personnel policy, $x_4$	Disclosure of data on human rights, anti-corruption and bribery matters, $x_5$
1.	JSC "NJSC "NAFTOGAZ of Ukraine"	1	1	1	1	1
2.	JSC "Pivnichnyi HZK" HMK	1	1	1	1	0
3.	JSC "Tsentralnyi HZK"	1	1	1	1	0
4.	JC "Poltavska hazonaftova kompaniia"	1	1	1	1	0
5.	PJSC "ZZRK"	1	1	1	1	0
6.	JSC "Inhuletskyi HZK" HMK	1	1	1	1	0
7.	SC "Pokrovskyi HZK"	1	1	1	1	0
8.	JSC "Ukrnafta"	1	1	1	1	0
Average values of $x_i$ for 22 enterprises of the group, including those that did not compile a management report for 2018		0,36	0,36	0,36	0,36	0,05
<b><math>I_{DND}</math> in 2018</b>		<b>0,33</b>				

**Source:** Calculated by the authors according to the annual non-financial reports of the surveyed enterprises.

In table 5 are presented the results of data compliance analysis of non-financial reports of surveyed enterprises with the requirements of Directive 2014/95/EU (based on data obtained from non-financial reports prepared for 2019).

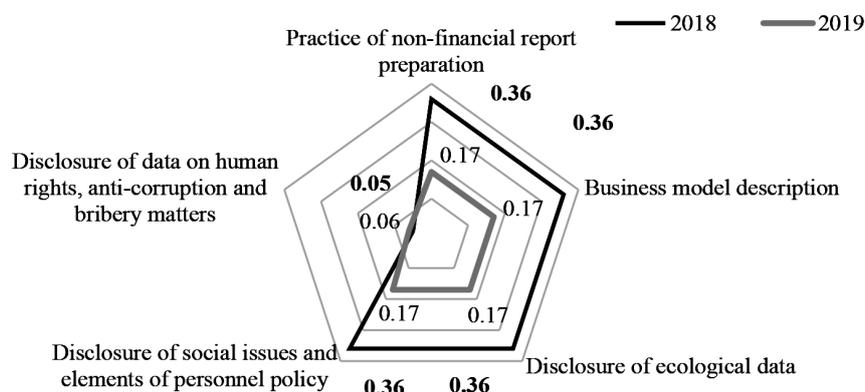
**Table 5.** Compliance of non-financial reporting (management reports) of the investigated enterprises of the extractive industry for 2019 with the EU Directive requirements in terms of disclosure of information according to ESG spheres

No	Company's name	Non-financial reports' evaluation criteria				
		Preparation of non-financial report, $x_1$	Business model description, $x_2$	Disclosure of ecological data, $x_3$	Disclosure of social issues and elements of personnel policy, $x_4$	Disclosure of data on human rights, anti-corruption and bribery matters, $x_5$
1.	JSC "Pivnichnyi HZK" HMK	1	1	1	1	0
2.	JSC "Tsentralnyi HZK"	1	1	1	1	0
3.	JC "Poltavska hazonaftova kompaniia"	1	1	1	1	1
Average values of $x_i$ for 18 enterprises of the group, including those that did not compile a management report for 2019		0,17	0,17	0,17	0,17	0,06
<b><math>I_{DND}</math> in 2019</b>		<b>0,16</b>				

**Source:** Calculated by the authors according to the annual non-financial reports of the surveyed enterprises.

The surveyed enterprises disclose information on environmental, social and personnel aspects (see Tables 4, 5). However, most companies in the study group do not cover the fight against

corruption and bribery and its results, and therefore their non-financial reporting does not have a maximum assessment of compliance with the criteria based on the requirements of Directive 2014/95/EU and Directive 2013/34/EU (Figure 3).



**Figure 3.** The results of the assessment of compliance with the requirements of Directive 2014/95/EU management reports of extractive industries’ entities among the largest taxpayers for 2018-2019.

**Source:** Calculated by the authors according to the annual non-financial reports of the surveyed enterprises.

Another reason for the low-level values of the index of industry disclosure of non-financial data is the absence of published non-financial reports (management reports) of extractive companies among the largest taxpayers in 2018 and 2019.

## 5. DISCUSSION

The study was based on existing methodologies for assessment of enterprises’ non-financial reporting practice: The Alliance for Corporate Transparency project analysis of companies’ reporting, UNCTAD Reporting on the Sustainable Development Goals.

Directive 2014/95/EU does not specify in sufficient detail what information and key performance indicators should be disclosed. To address this issue, leading civil society organizations and experts have joined forces in a three-year Alliance for Corporate Transparency research project to analyze how European companies meet the requirements of Directive 2014/95/EU, and to develop proposals to improve policy requirements. In 2018, more than 100 companies engaged in energy and extractive industries, information and communication technologies and healthcare sectors were evaluated.

The UNCTAD research paper offers an original overview of indicators used by enterprises in the area of environmental, social and management reporting (ESG). The purpose of the study is to provide empirical data to identify a set of core indicators for companies as a baseline for ESG reporting, without excluding wider disclosure in the private sector. For this purpose, the document reviews the practices of the global 100 companies in the context of the Sustainable Development Goals. This empirical analysis was one of several contributions to UNCTAD’s work on core indicators for reporting companies’ contribution to the Sustainable Development Goals.

It should be noted that the algorithm of this study is based on existing best practices of empirical research conducted by international professional organizations. Nevertheless, the key difference

of this study is its focus on identifying the impact of legal regulation on the state of disclosure of financial and non-financial information by enterprises in the management report and their publication in countries with economies in transition (the case of Ukraine).

The main point for discussion and further research conducted by representatives of the scientific community, policy-makers and international organizations (key findings) is the necessity to substantiate a universal model and basic algorithm for the development of the effective mechanism for collecting, processing and quality control of non-financial reporting. The lack of requirements for verification of management reports and liability for non-submission, content and accuracy of data, as well as incentives in countries with transitional economies, are the prerequisites for reducing the level of preparation and low quality of non-financial reports.

In addition, one of the current tasks for research in the area of non-financial reporting is to regulate the disclosure of non-financial data and data reflecting the impact of the COVID-19 pandemic on performance. A separate area of activity of international organizations is to supplement the existing documents and regulations in the area of ESG disclosure with indicators (quantitative and qualitative) that reveal the impact of COVID-19 on the enterprises' activities, including the IPIECA Sustainability reporting guidance for the oil and gas industry; UN framework for the immediate socio-economic response to COVID-19; IFAC Summary of Covid-19 Financial Reporting Considerations, IIOSCO Statement on Importance of Disclosure about COVID-19 (Communication IOSCO/OR/02/2020 dated 29.05.2020) and others. However, at the regulatory level in Ukraine, these trends have not yet spread.

## 6. CONCLUSION

Non-financial reporting is an effective tool for ensuring accountability and informational openness of companies. In Ukraine, the EU directives have been implemented into national legislation and amendments have been made requiring certain types of enterprises to prepare a management report and a consolidated management report. However, the preparation of non-financial statements causes difficulties for business entities due to the problems of the inconsistency of regulatory and legal support, different levels of quality of source data depending on the sectoral affiliation, and so on. Therefore, at the current stage of the development of non-financial reporting in Ukraine, it is necessary to obtain objective information on current reporting practices of domestic companies, including the extractive industry, and to determine general trends, conclusions and proposals on this basis.

The assessment of the practice of non-financial reporting of extractive industries led to the following conclusions: the level of non-financial reporting by companies depends on the institutional environment, in particular, the number of non-financial reports (mostly management reports) increased after the introduction of legal requirements for such reporting; non-financial reporting mainly discloses information on environmental, social and personnel aspects, but the issues of combating corruption and bribery and the results of its implementation remain undisclosed in the reporting of most of the surveyed enterprises; the highest rate of compliance with EU directives on the disclosure of non-financial information belongs to companies that have a long practice of non-financial reporting. At the same time, it was found that the other side of government regulation (responsibility for non-submission of management reports) also has a significant impact on the level of disclosure of non-financial data of the enterprise, as evidenced by a decrease in non-financial reports. This fact is also a confirmation of the hypothesis formulated in the work.

The novelty of the study: the authors at the first time investigated and proved the direct impact of the effectiveness of government regulation and the state of disclosure of non-financial data by enterprises in countries with economies in transition (the case of Ukraine). Proof of this hypothesis led to the authors' development of the algorithm for assessment of the level of compliance of non-financial reports with regulatory requirements. It was suggested to use the index of industry disclosure of non-financial data for this purpose  $I_{IDND}$ .

The main direction for further development of non-financial reporting is to ensure the quality and comparability of disclosure of information on sustainable development through the development of an effective mechanism for regulation of the collection, processing and verification of relevant reports.

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## REFERENCES

- Adai, C.R.L. (2020). Sustainability Reporting Quality of Peruvian Listed Companies and the Impact of Regulatory Requirements of Sustainability Disclosures. *Sustainability*, 12(3). <https://doi.org/10.3390/su12031135>
- Asif, M., Cory, S., Paulo, S., & Kensah, D. (2013). A review of Dutch corporate sustainable development reports. *Corporate Social Responsibility and Environmental Management*, 20, 321–339.
- Baumüller, J., & Schaffhauser-Linzatti, M.-M. (2018). In search of materiality for nonfinancial information – reporting requirements of the Directive 2014/95/EU. *Sustainability Management Forum*, 26(1), 101-111. Retrieved from <https://link.springer.com/content/pdf/10.1007%2Fs00550-018-0473-z.pdf>
- Boiral, O., Heras, I., Brotherton, M.-C., & Bernard, J. (2018). Ethical issues in the assurance of sustainability reports: Perspectives from assurance providers. *Journal of Business Ethics*. doi:10.1007/s10551-018-3840-3
- Crowther, D. (2017). *A Social Critique of Corporate Reporting: A Semiotic Analysis of Corporate Financial and Environmental Reporting*. London: Routledge, 346 p.
- EITI Ukraine. Retrieved from <http://eiti.org.ua/pro-eiti/>
- European Commission (2019). Guidelines on reporting climate-related information. Retrieved from [https://ec.europa.eu/finance/docs/policy/190618-climate-related-information-reporting-guidelines\\_en.pdf](https://ec.europa.eu/finance/docs/policy/190618-climate-related-information-reporting-guidelines_en.pdf)
- Hassan, A., Elamer, A.A., Fletcher, M., & Sobhan, N. (2020). Voluntary assurance of sustainability reporting: evidence from an emerging economy. *Accounting Research Journal*. <https://doi.org/10.1108/ARJ-10-2018-0169>
- Iefymenko, T., Lovinska, I., Oliynyk, Ya., Bondar, T., & Kucheriava, M. (2017). Introduction of non-financial reporting in the context of implementation of EU legislation in Ukraine. Kyiv: SESE “The Academy of Financial Management”. Retrieved from [afu.kiev.ua/getfile.php?page\\_id=462&num=1](http://afu.kiev.ua/getfile.php?page_id=462&num=1) [in Ukrainian].
- IFAC (2020). Summary of Covid-19 Financial Reporting Considerations. Official website. Retrieved from <https://www.ifac.org/knowledge-gateway/supporting-international-standards/discussion/summary-covid-19-financial-reporting-considerations>

- Information in Crisis Management: A Global Aspect of the Standardization of Accounting and Financial Reporting / T. Iefymenko, V. Zhuk, L. Lovinska; Academy of Financial Management. – K., 2015. – 400 p.
- International Organizing Committee for the World Mining Congress (2019). World mining data 2019. Official website. Retrieved from <http://www.world-mining-data.info/wmd/downloads/PDF/WMD2019.pdf>
- IOSCO (2020). IOSCO Statement on Importance of Disclosure about COVID-19. Official website. Retrieved from <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD655.pdf>
- IPIECA (2020). Sustainability reporting guidance for the oil and gas industry. *Official website*. Retrieved from <https://www.ipieca.org/our-work/sustainability-reporting/sustainability-reporting-guidance/>
- Kryshtopa I. I. (2014). Strategic reporting of industrial enterprises: concept, composition, structure. *Actual issues of economy*. No 7(157). p. 449–453
- Kumar, K., & Prakash, A. (2019). Examination of sustainability reporting practices in Indian banking sector. *Asian Journal of Sustainability and Social Responsibility*, 2. <https://doi.org/10.1186/s41180-018-0022-2>
- Mineral resources of Ukraine (2020). Information resource. Retrieved from <http://minerals-ua.info/>
- Mion, G., & Aduai, C.R.L. (2019). Mandatory Nonfinancial Disclosure and Its Consequences on the Sustainability Reporting Quality of Italian and German Companies. *Sustainability*, 11(17). <https://doi.org/10.3390/su11174612>
- Oliinyk Y. (2019). Application of the universal system of indicators describing the contribution towards implementation of the SDGS as an instrument ensuring the comparability of non-financial reporting. *Strategies for Entrepreneurship for Sustainable Development of Small and Medium-Sized Innovative Entrepreneurship: International Conference*, 9-14 October 2019. p. 38-42.
- Oliinyk, Y., Kucheriava, M. (2019). Implementation of reporting on water-use efficiency in the context of SDG's attainment. *In Accounting and analytical support of the enterprise management system*. p. 237-238
- Oliinyk Y., Kucheriava M., Zinchenko A., Korytnyk L. (2020). Practice of non-financial reporting of enterprises of the extractive industry of Ukraine. *RFI SCIENTIFIC PAPERS*. No 4. p. 95-105.
- Riepina I., Hrybinnenko O., Parieva N., Parieva O., Savenko I., Durbalova N. (2019). Quantity Assessment of the Risk of Investment Projects. *International Journal of Recent Technology and Engineering (IJRTE)*. Volume-8 Issue-3. Retrieved from <https://www.ijrte.org/wp-content/uploads/papers/v8i3/C6338098319.pdf>
- SFS (2019). Register of large taxpayers for 2019. Retrieved from <http://officevp.sfs.gov.ua/media-ark/news-ark/352252.html>
- SFS (2021). Who topped the ranking: TOP-5 industries for paying taxes. Retrieved from <https://officevp.tax.gov.ua/media-ark/news-ark/462202.html>
- Slacik, J., & Grelling, D. (2019). Sustainability Reporting by Electric Utilities. *European Conference on Intangibles and Intellectual Capital*, XIV, 271-281.
- State Statistics Service of Ukraine (2020). Macroeconomic indicators. Official website. Retrieved from <http://www.ukrstat.gov.ua/>
- Stolowy, H.; Paugam, L. (2018). The expansion of non-financial reporting: an explanatory study. *Accounting and Business Research*, vol. 48, No. 5, pp. 525-548
- The Alliance for Corporate Transparency project analysis of companies' reporting (2019). 2018 Research Report The state of corporate sustainability disclosure under the EU Non-Financial Reporting Directive, p.76

- UN (2020). A UN framework for the immediate socio-economic response to COVID-19. Official website. Retrieved from [https://www.un.org/sites/un2.un.org/files/un\\_framework\\_report\\_on\\_covid-19.pdf](https://www.un.org/sites/un2.un.org/files/un_framework_report_on_covid-19.pdf)
- UNCTAD (2018). Reporting on the Sustainable Development Goals. Retrieved from [https://unctad.org/system/files/official-document/ser-rp-2018d1\\_en.pdf](https://unctad.org/system/files/official-document/ser-rp-2018d1_en.pdf)
- Vukić, N. M.; Vuković, R.; Calace, D. (2018). Non-financial reporting as a new trend in sustainability accounting. *Journal of Accounting and Management*, Vol. VII No.2, 2018, pp. 13-26.
- Zheng, P., & Ren, Ch. (2019). Voluntary CSR disclosure, institutional environment and independent audit demand. *China Journal of Accounting Research*, 12(4), 357-377. <https://doi.org/10.1016/j.cjar.2019.10.002>
- Zinchenko A., Reznik N., Saprykina M. (2018). Transparency index of Ukrainian companies' websites - 2017. 28 p. Retrieved from [http://old.csr-ukraine.org/wp-content/uploads/2018/10/Transp\\_Index\\_2018\\_preview-.pdf?fbclid=IwAR3t8Twai7\\_wBdLHAsFTZEZnjI3D4L6y-Oc3rOtF48UnMloCbGh8iVHwNZIs](http://old.csr-ukraine.org/wp-content/uploads/2018/10/Transp_Index_2018_preview-.pdf?fbclid=IwAR3t8Twai7_wBdLHAsFTZEZnjI3D4L6y-Oc3rOtF48UnMloCbGh8iVHwNZIs)