







ISSN 1822-8038 (online) INTELEKTINĖ EKONOMIKA INTELLECTUAL ECONOMICS 2020, No. 14 (2), p. 67–86.

# INTEGRATED REPORTING IN THE CONDITIONS OF SUSTAINABLE DEVELOPMENT: INSTITUTIONALIZATION THROUGH STANDARDIZATION

## Olena PETRYK, Olena DIADIUN

Kyiv National Economic University named after Vadim Hetman, Kyiv, Ukraine

### Nataliia SEMENYSHENA

Western Ukrainian National University
Ternopil, Ukraine
State Agrarian and Engineering University in Podilya
Kamianets-Podilskyi, Ukraine

# Nadiya KHORUNZHAK

Western Ukrainian National University Ternopil, Ukraine

# Sergiy KALINICHENKO

Kharkiv Petro Vasilenko National Technical University of Agriculture Kharkiv, Ukraine

DOI: 10.13165/IE-20-14-2-05

Abstract: The purpose of the present research is to determine the advantages and disadvantages of integrated reporting in the context of disclosures of company intangible assets. A comprehensive approach to management envisages incorporation of the influence of intangible factors into the process of creation of the company's value. In spite of the growing role of intangible assets (especially in the course of introduction and further implementation of sustainable development principles), financial reporting does not provide complete disclosure of information about such resources. Thus, identification of the place of intangible assets within the integrated reporting structure requires detailed studying. The research is based on the requirements of the fundamental documents of the UN, International Integrated Reporting Council (IIRC), International Accounting Standards Board (IASB), and

on empirical data obtained in the process of analysis of reporting for Ukrainian companies as well.

**Keywords:** Intangible Assets; Intellectual Capital; Financial Reporting; Integrated Reporting; Sustainable Development

JEL Code: M41

### 1. Introduction

The main purpose of financial accounting is provision of information required for managerial decision making. This occurs via the system of financial reporting, intangible assets being one of its items. The rules of recording such items are clearly described in the accounting standards. However, complication of the market environment and social and economic changes give rise to new requirements to the reporting system, which has to meet the demands of a broad circle of users and correspond to state-of-the-art management systems, namely orientation of companies towards sustainable development goals.

The UN basic research states that sustainability is meeting the needs of the present without compromising the ability of future generations to meet their own needs (United Nations, 1987).

As Mensah (2019) states, sustainable development cannot be achieved through isolated initiatives, but on the contrary – integrated efforts are required on various levels, including social, environmental, and economic aspects. It is achievement of a balance between these components, that forms the basis and ultimate goal of sustainable development.

Under levels of sustainable development, we understand its implementation on the global, national, and local (separate company) levels.

Kolot (2013) stresses that society on the whole is interested in each business structure acquiring the status of a company oriented at sustainable development.

In her turn, Filipishyna (2017) notes that sustainable development constitutes a new management philosophy, which envisages rethinking of the role of a company in socio-economic development, a high level of responsibility in the economic, environmental, and social spheres; understanding the needs for formation of development strategies, which are adequate to the requirements of the socially-oriented innovational economy.

On 25 September 2015 at the Sustainable Development Summit in New York, the Sustainable Development Goals until year 2020 «Transforming the World: the 2030 Agenda for Sustainable Development» (2015) were approved. The mentioned documents include 17 interconnected goals, which correspond to the Millennium Development Goals.

The Global Sustainable Development Report (2019) says that there has been extensive positive progress since adoption of the Sustainable Development Goals. Various countries started incorporating the Goals into their national plans and strategies, and a number of countries created their own coordination structures for consecutive implementation of such goals.

To this point, Ukraine is not an exception; the Ministry for Economic Development and Trade of Ukraine prepared and presented the national report «Sustainable Development Goals: Ukraine» (2017) covering the programme until year 2030 on 17 key goals and indicators of their achievement. At least three of the specified goals are directly connected with intangible assets (Table 1).

**Table 1:** Sustainable development goals, whose achievement requires involvement of intangible assets

Goal		Key tasks			
8	Decent work and economic growth	<ul><li>Production upgrade;</li><li>Innovations development;</li><li>High value added products.</li></ul>			
9	Industry, innovation, and infrastructure	Quality, reliable, sustainable, and affordable infrastructure;     Development of high and medium-technology sectors of processing industry based on the "education-science-production" chains.			
12	Responsible consumption and production	Reduction of resources consumption by the economy;     Reduction of the volume of waste based on innovational technologies and productions.			

Source: own generalization based on data of State Statistics Service of Ukraine

Studying the link between sustainable development of a company and intangible assets, we agree with Wut (2019) with regard to the fact that in present-day society, intangible assets are one of the main resources for corporations. Investments into intangible assets, especially their part not recognized in accounting, have considerable influence on business reputation (goodwill) of a company in the long-term perspective. This, in its turn, facilitates deepening of sustainable development processes within a corporation. Investments into research and development would allow a company to gain better products or services. Investments into human capital motivate employees, as well as attracts external specialists into the team. Highly professional employees and low staff turnover ratio facilitate achievement by the company of higher performance indicators.

Bužinskienė (2017) proves that most scholars consider intangible assets as a part of intellectual capital. Avoiding identification of notions, the author proposes to recognize intangible assets with account of their key peculiarities: such assets are formed from intangible resources possessed by a company; their cost is disclosed irrespective of whether they are recognized as assets at accounts; they create added value for a company; economic benefits from intangible assets are manifested in changes of the market value of a company. Considering this definition, the author structures all intangible assets (related to marketing; people-oriented; contractual; technological and innovational) into two groups: those presented in accounting (financial information) and non-accounting ones (non-financial information). It is for the second group that the issue of going beyond financial reporting becomes relevant.

We agree with the representatives of the Chamber of Auditors and Accountants of Ukraine (2019), who note that non-financial information refers to any data obtained from sources other than the financial statements or the accounting systems of the enterprise. We add that in the context of intangible assets, they are extremely important non-financial indicators, both quantitative and qualitative (e.g., number of innovative products, customer base, the ratio of regular and new customers, brand position in the market, number of hours of training, etc.). An additional advantage of non-financial indicators is the ability to show current correlations with financial indicators. However, at present, such indicators are not characterized by a continuous spread within the financial statements.

Dobrovic, Lambovska, Peter and Timkova (2018) confirm, that enterprises are largely managed through financial indicators, but the current trend is showing the increasing importance of non-financial measurers, too.

# 2. Research problem

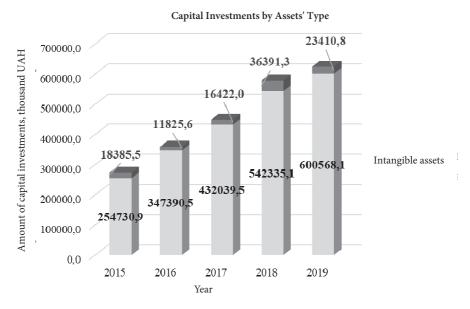
Investments into the latest technologies, into the intangible sphere is an inseparable component of sustainable development.

Studying Spanish startups in terms of their sustainability, Torres-García (2019) concludes that, in spite of the period for business models transformation, the importance of innovations, knowledge, and technology is growing, though such a change does not mean full recognition of such items in corporate financial statements because only 18% of created companies take account of it. In relative figures, most investments into intangible assets are made in the sphere of tourism, however in absolute figures, trade, services, and industry prevail over tourism.

As for Ukraine, intangible assets take only 3.75% (Figure 1) in the structure of capital investments of domestic companies into intangible assets in 2019. Material-intensive production prevails, which, by its nature, cannot be a priority in a sustainable development economy.

On the contrary, expert researches and scientific investigations demonstrate, that the situation is different. Thus, Kondrashova (2011) states that in a number of high-tech companies with world reputation, the cost of intangible assets comprises from 50 to 70% of the registered capital amount. However, in Ukraine, such figures are far lower according to the official financial reporting data (Table 2).

One should note that a half of the companies included into the sampling, have the share of intangible assets not even reaching 1%. The analysis conducted confirms that for companies of the services industry (Kyivstar PrJsC, Ukrzaliznytsia JSC, Farlep-Invest PrJsC), the share of intangible assets recorded at the Balance Sheet, is substantially higher than for production enterprises and banks.



**Figure 1.** Capital investments into intangible assets in Ukraine in the years 2015-2019 Source: own calculation based on data of State Statistics Service of Ukraine

**Table 2.** Share of intangible assets in the assets of Ukrainian companies

Na	Commons	Date of financial statements preparation					
No	Company	31.12.2017	31.12.2018	31.12.2019			
1.	Kyivstar PrJSC	18.80%	33.47%	33.45%			
2.	Ukrzaliznytsia (Ukrainian Railways) JSC	17.32%	17.26%	17.05%			
3.	Farlep-Invest PrJSC	2.22%	1.46%	2.07%			
4.	Farmak PJSC	1.95%	1.94%	2.06%			
5.	Ukrgazvydobuvannia JSC	1.12%	1.30%	1.37%			
6.	FUIB JSC	0.65%	0.64%	0.50%			
7.	Ukrhydroenergo PrJSC	0.14%	0.20%	0.24%			
8.	Dniprospetsstal PrJSC	0.13%	0.11%	0.10%			
9.	SE NNEGC Energoatom	0.08%	0.08%	0.16%			
10.	NJSC Naftogaz of Ukraine	0.02%	0.02%	0.01%			

Source: own calculation based on published financial statements

One can explain this not only with high materials intensity from the Ukrainian economy, but also with the criteria for identification of intangible assets for the accounting and reporting system of a company. In the domestic practice, the main criterion is receipt of proprietary rights for an intellectual property object. However, intangible assets are not limited to specifically that.

Thus, according to Pucci, Cenci, Tutino and Luly (2014), intangible assets include innovative potential, creativity, know-how, and experience gained by employees, their ability to be part of a team, employees' flexibility, satisfaction, learning ability, loyalty, and level of education. However, financial reporting does not take account of such assets, because they cannot be identified and controlled. Thus, most assets, which appear to be intangible in their essence and bring actual benefit to companies, are not reflected in accounting and reporting.

- The following is actually recorded at the Balance Sheet by the analyzed companies:Licenses as well as network and billing software (Kyivstar PrJSC);
- Right for permanent use of land plots (Ukrzaliznytsia JSC);
- Capitalized software and telecommunication licenses (Farlep-Invest PrJSC);
- Rights for geological research and excavation of mineral resources, software (Ukrgazvydobuvannia JSC);
- Capitalized software and licenses (Farmak PJSC, FUIB JSC, Ukrhydroenergo PrJSC);
- Fiinancial accounting software, patent and other proprietary rights (Dniprospetsstal PrJSC);
- Perpetual right for use of land plots, software products, licenses, permits, patents (SE NNEGC Energoatom);
- Capitalized software (NJSC Naftogaz of Ukraine).

Certainly, it is impossible to provide all the necessary information directly in the financial statements' forms, and for this reason it is disclosed in notes, especially if it refers to financial statements prepared under the IFRS. In the opinion of Kasatkin (2012), notes make 85-90% of financial statements under the IFRS. The IFRS require detailed and broader disclosures, most of which are provided in notes to financial statements.

We analyzed the information on intangible assets, disclosed in the Notes of the analyzed companies (Table 3).

Indicator		Companies								
		2	3	4	5	6	7	8	9	10
Descriptive information (extracts from company accounting policy)										
Types of intangible assets	+	-	+	+	+	+	+	+	+	+
Peculiarities of measurement	+	-	+	+	+	+	+	+	+	+
Amortization method	+	-	+	+	+	+	+	+	+	-
Definition and revision of useful life	+	-	+	+	+	+	+	+	+	-

**Table 3.** Disclosures of intangible assets in Notes to financial statements

Indicator		Companies								
		2	3	4	5	6	7	8	9	10
Disclosures to financial statements' items										
Movement of intangible assets	+	-	+	+	+	+	+	+	+	-
Detailing of intangible assets composition	+	+/-	+	+	-	-	-	-	+	-
Characteristics of fully amortized intangible assets still in use	-	-	-	-	+	+	-	+	-	-
Amount of amortization of intangible assets with indication of the item of expenditures it is included into	-	-	-	-	-	-	-	-	+	-
Information on the amount of contractual liabilities connected with acquisition of intangible assets	-	-	-	+	-	-	-	-	+	-

Source: own generalization based on published financial statements

In most cases, disclosures of intangible assets include:

- 1) Descriptive characteristic (provision of the accounting policy disclosed with regard to intangible assets);
- 2) Information required for comprehensive understanding of the "Intangible assets" item of the statement of a financial position (amount of revenue, disposal, accumulated amortization for the period etc.).

We note that Ukrainian companies, which report under the Ukrainian Accounting Standards (UAS), as a rule, disclose in the notes only information on the items of financial statements. Descriptive characteristics are not made, companies are guided only by the template offered by Ministry of Finance of Ukraine.

Let us try to determine whether within the current IFRS, it is possible to disclose additional information on intangible assets without limiting their definition with rights for intellectual property objects. It is important to find out whether such disclosure would contradict with the Conceptual Framework for Financial Reporting. The study conducted shows that the IFRS do not prohibit incorporating additional information not presented in the forms of financial statements (Table 4). The main requirement raised to such information is its usefulness for primary users of the financial statements of a specific company.

Conceptual
Framework
for Financial
Reporting

Reporting

However, concentration of attention on common needs in information would not impede a reporting entity to include additional information, which is the most useful for a certain subpopulation of primary users (paragraph 1.8).

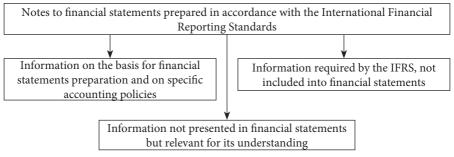
**Table 4**. Possibility of additional disclosures within the IFRS

Source	Permit for additional disclosures
IAS 1 Presentation of Financial Statements	In addition to financial statements, a number of entities submit the financial overview prepared by management, which contains a description and explanation of the main characteristics of financial results of an activity and of the financial position of the entity, as well as the main uncertainties connected with it. Such a report can contain an overview of:
	c) entity's resources not recognized in the statement of financial position under the IFRS (paragraph 13).
	In addition to financial statements, a lot of entities submit conclusions and other documents (for instance, environmental reports and reports on added value).
	Reports and other documents submitted not within financial statements, do not fall under the IFRS (paragraph 14).

Source: Conceptual Framework for Financial Reporting (IASB, 2018) and IAS 1 (IASB, 2007)

We note that under the Conceptual Framework for Financial Reporting (2018), current and potential investors, lenders, and other creditors belong to primary users. Respectively, the data of Table 4 demonstrate that it is allowed to disclose additional information to satisfy the information needs of such groups of users. The place for such information can be provided in corresponding notes.

The main types of information, which can be presented in notes as stated, are shown in Figure 2. In our opinion, additional information on intangible assets can belong to the third group, because data on them are not presented in financial statements, while in the sustainable development conditions, such information is relevant for correct understanding of the company's financial position and performance.

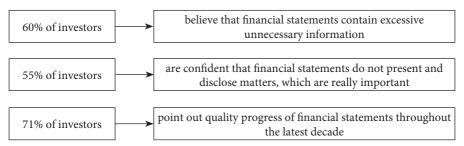


**Figure 2.** Types of information disclosed in notes to financial statements Source: own generalization based on Kasatkin. (2012)

Apart from that, the results of surveys held by CFA Society of the UK (2015), show that the current reporting system is not capable of incorporating a wide range of investors' information needs (Figure 3). In this respect, the possibility of more comprehensive satisfaction of the needs of financial statements users via non-IFRS information is worth attention.

Kharlamova (2015) details that non-IFRS information is information, presentation and disclosure of which is not stipulated by the IFRS:

- Information obtained based on accounting data, which meets the IFRS requirements, but is not required by the IFRS for presentation and disclosure (for instance, analytical figures characterizing the company financial position);
- Information obtained based on accounting data, which are outside the IFRS-information (for instance, based on managerial accounting data).



**Figure 3.** Results of survey on financial reporting Source: own generalization based on CFA Society of the UK (2015)

We consider it advisable to compare additional information on intangible assets with the other group of non-IFRS information, which it would be useful to disclose for satisfying the needs of various user groups. However, for the time being, there is no common opinion in scientific circles on the need to disclose non-IFRS information, because this process has both positive and a substantially large number of negative consequences (Table 5).

8 3 7				
Advantages	Disadvantages			
The information disclosed is material for users, including that on intangible assets not recorded in the Balance	Threat of unreasonably large volume of non-IFRS information in financial statements.			
Sheet	Increase of expenses for both preparation and audit confirmation of financial statements.			
Reporting would become more suf-	Decrease of comparability.			
ficient and relevant for users	Complication of perception of financial statements by users due to its non-standard form.			

Table 5. Advantages and disadvantages of non-IFRS information

Source: own generalization

Apart from that, the results of surveys by CFA Society of the UK (2015) revealed: 56% of respondents stated that they trust IFRS figures more than non-IFRS information.

As a rule, this is related to absence of specific requirements to disclosure of non-IFRS information. Thus, for instance, Bayne and Wee (2019), analyzing disclosure of non-financial efficiency indicators in annual financial statements of 40 companies, note that it is impossible to work out detailed rules for disclosure of non-financial information. However, in the authors' opinion, a global set of guidance principles and categories with regard to information to be disclosed may lead to increase of comparability and usefulness of non-financial reporting.

In their turn, Deloitte specialists (2019) believe that at least, non-IFRS information shall:

- not be misleading and not conceal "bad news";
- not be a priority compared with the IFRS;
- · have the relevant marking;
- describe calculation methods:
- not contradict IFRS measurements;
- be submitted sequentially from period to period;
- contain reasons for any departures from the IFRS.

However, as practice shows, companies do not present non-IFRS information. Still, certain indicators for measurement of intangible assets in their broader understanding outside financial statements are present, though they are not systematized and are mostly contained in statistical reporting, the main user for which is the state; in the management report or certain non-systematic reporting forms. Thus, a comprehensive approach to disclosures on intangible assets should be searched for elsewhere.

# 3. Methodology

The methodological basis for the research, presented in this article, was analysis of regulatory documents, scientific literature, statistical information, and corporate publications. The comparison and sampling methods were used in the course of the research. The systematization and information modeling methods became the basis for formation of generalizations and conclusions, while the tabular and graphic methods – for visual presentation of the results of the research conducted.

### 4. Results

We agree with Matuszyk and Rymkiewicz (2018), that at present, integrated reporting is the highest level in evolution of reporting of companies, as well as an important milestone in its development. The contemporary concept of integrated reporting may appear to be a solution to a number of, if not all, problems and disadvantages of traditional reporting.

Under the International Integrated Reporting Standard (IIRC) (2018), the purpose of an integrated report is to provide information on resources and relations an entity uses and influences. It also tries to explain, how an entity interacts with the external environment and capitals for value throughout the short-, medium-, and long-term periods.

A substantial advantage of the integrated reporting system is comprehensive incorporation of capitals as categories, which manifest value (Table 6).

**Table 6.** Categories of capital signifying value within the integrated reporting system

Capital	Essence	Compliance with SDG
Financial	Reserve of funds, which an entity has for usage in the course of production, which are received via financing or created as the result of transactions or investments.	3-15, 17
Production Production of physical objects, which an entity has for manufacturing goods or rendering services.		2, 4, 6, 7, 9, 11-14, 17
Intellectual	Knowledge-based organizational intangible assets.	3, 6,7, 10, 12-14, 16, 17
Human	Employees' competencies, knowledge, and experience, as well as their motivation to implement innovations.	3-8, 10, 12-14, 16,17
Socio-reputa- tional	Institutions and relations within communities and between them, as well as between groups of stakeholders and other groups, and also ability to share information for improvement of individual and collective well-being.	1-17
Natural	All renewable and non-renewable natural resources and processes, which enable creation of goods and services to support the entity's past, present, or future well-being.	2, 6, 7, 12-15, 17

Source: own generalization based on IIRC (2018) and Bezverkhyy (2018)

From the data of Table 6, we conclude that at least three types of capital according to the Integrated Reporting Standard (intellectual, human, socio-reputational) meet the broad definition of intangible assets. In addition, the standard stresses that there is no strict requirement on application of the proposed structuring of capitals; it is used more as a guidance to view all forms of capital influenced by an entity.

Bezverkhyy (2018) stresses that social capital is the leader among the types of capital, as it discloses all sustainable development goals (17 goals). Apart from that, we support the initial statement about goals 8, 9, 12 having the closest link with intangible assets. However, we do not object against the influence onto other goals.

Studying integrated reporting, Morros (2016) states, that initially integrated information was disclosed mostly within corporate annual (financial) reports. However, during the latest two decades, social and ecological disclosures are published more and more frequently in separate self-contained reports, in addition to a number of other channels, such as websites.

This is actually the case; almost all companies analyzed by us, support the sustainable development goals, which they state on their official websites (Kyivstar PrJSC, Farmak PJSC, Ukrgazvydobuvannia JSC), without disclosing the details. For instance, Kyivstar PrJSC states that it supports the Sustainable Development Goals in terms of quality education, worthy labor, and economic growth, innovations, and infrastructure,

as well as the Partnerships for Sustainable Development Goals. We note the fact that the mentioned goals are directly connected with intangible assets.

Certain companies prepare reports, which are partially related to integrated reporting. SE NNEGC Energoatom has experience of submission of a non-financial report in 2018. FUIB JSC prepares its annual Progress Report, which describes the status of implementation of the bank's sustainable development strategy. Ukrhydroenergo PrJSC raises a number of sustainable development issues in its Management Report. Dniprospetsstal PrJSC in 2010-2014 disclosed its report on corporate social responsibility. Among the sampled companies, Ukrzaliznytsia JSC has experience in submission of actually integrated reporting. NJSC Naftogaz of Ukraine discloses its Annual Report, which is also positioned as integrated. Kyivstar PrJSC disclosed its integrated report in 2015-2016.

Zhuravka (2020) stresses that most integrated reports prepared in Ukraine, are formed based on the vision of the owners or top management and have different contents, format, and structure of results' presentations. This is caused by absence of a common integrated reporting concept, deliberate slowing of implementation of the risky disclosure of confidential information, difficulties in obtaining and systematizing data, etc.

Analysis of the structure of integrated reports of the companies analyzed by us (Table 7) confirms the conclusions of different formats and different structures of information presentation. In most cases, Ukrainian companies prepare reports as per the requirements of the GRI (Global Reporting Initiative) standards.

Ukrzaliznytsia JSC (2018)	NJSC Naftogaz of Ukraine (2019)	Kyivstar PrJSC (2015-2016)
The Company Today	Market and Reforms	Вступ
Our Business	Strategy and Operating Activity	Client Care. Improvement of Tariffs and Services
Our Staff and Country	Corporate Governance	Social initiatives
Our Environmental Responsibility	Environmental and Social Responsibility	Consolidated Financial Statements
Our Sustainable Development	Financial Overview and Statements	
Our Financial Results	Additional Information	
Annexes		

**Table 7.** Sections of integrated reports of Ukrainian companies

Source: own generalization based on published statements

Scientists' approaches on structuring are presented in Table 8.

Truly, there is no uniform coordinated structure for such a report, whether in theory or in practice.

In our view, when preparing integrated reports, it would be advisable for Ukrainian companies to follow the recommendations of the International Integrated Reporting Standard (IIRC, 2018) on the structure of such a report.

Yershova (2016)	Kostyrko (2014)	Atamas P. and Atamas O. (2015)	Bezverkhyy (2014)
Overview of the entity and its external environment	Description of the entity's activity and business model	Address of company top management to interested users of the reporting	Address of company top management
Management	Environment the entity operates in, namely risks and opportunities	Company characteristics	Information about company
Opportunities and risks	Strategic goals and strategy for their achievement	Integrated report parameters	Company manage- ment
Strategy and plan on resources distri- bution	Corporate governance and remunerations	Corporate governance, obligations, and interaction with stakeholders	Company's business model
Business model	System of production indicators and sustainable development indicators	Financial indicators of activity (financial statements and their interpretation)	Company's performance
Results of the reporting period	Forecast for the future	Economic indicators of activity	Risks and opportunities
Future prospects	Analysis of non-financial results	Social activity and social responsibility indicators	Audit opinion
	Mechanism of product added value creation	Characteristic of ecological activity	
		Risks and opportunities	
		Other material issues of the company activity	
		Organization of internal and external control of report quality	

**Table 8**. Scientific approaches to integrated report structure

Source: indicated in the table

This would ensure unification and partial comparability of reports of different companies. Such a structure does not contradict with the possibility to disclose information on intangible assets (Table 9).

Table 9 shows that we consider supplementing the structure provided by IIRC (2018), with a separate section devoted to sustainable development.

Of course, usage by Ukrainian companies of integrated reporting would require considerable efforts and transformations, namely:

- identifying the notion of integrated reporting and the methodology of its preparation in the internal regulatory documents (accounting policy);
- formation of the system of information identification, which would create the ground for integrated reporting;
- definition of a working team competent to prepare such reporting.

Integrated report section	Disclosure of information connected with intangible assets
I. Company overview and external environment	Information on competitive environment and market positioning (socio-reputational capital).  Number of employees, brief information on its qualitative composition and changes throughout the period (human capital).  Facts of impact of the external environment onto formation of the mix of company intangible assets.
II. Management	Characteristic of the company management, definition of how the management system affects usage of capital (namely capitals intangible assets are formed from), with the purpose of its transformation into new value.
III. Business model	Diagrammatic model of transformation of resources into products and results, including value creation. Definition of the place of intangible assets in this model (impact of separate elements onto resources and results).
IV. Risks and opportunities	Description of risks connected with usage of intangible assets.
V. Resources strategy and distribution	Role of innovations in achievement of the strategic goal of how the company uses intangible assets (mix of quantitative and qualitative characteristics).
VI. Results of activity	Company performance in terms of its capitals (including intellectual), material impact onto capitals in the value creation chain.
VII. Future prospects	Accessibility of separate components of intangible assets in the long-term perspective (for instance, ensuring availability of qualified staff, preservation of existing clients).
VIII. Main principles of preparation and presentation	Justification of which information on the intellectual capital is to be presented on a quantitative basis, and which – on a qualitative basis.
Proposals on supplementing	
Sustainable development	Description of the status of achievement by the company of key sustainable development indicators. The indicators defined in "Sustainable Development Goals: Ukraine" (2017) are to be used as guidance.

**Table 9.** Disclosure of information on intangible assets within integrated reporting

Source: own generalization based on IIRC (2018)

In the conditions of sustainable development, an integrated reporting system has a series of substantial advantages, among which are: coverage of all forms of capital, which affect formation of the company value; orientation at strategic thinking; satisfaction of the needs of a wide circle of users and ensuring transparency in the company activity.

Accordingly, in spite of potential difficulties (Table 10), expenses for preparation of integrated reporting are justified.

Upon absence of a uniform methodology of valuation for a number of intangible assets in traditional financial accounting, disclosure of non-financial information in integrated reporting is an important information source. However, determining key indicators is one more problematic issue.

**Table 10.** Advantages of integrated reporting and potential difficulties of its preparation in terms of recording intangible assets

Advantages	Potential difficulties				
Scope of disclosures of intangible assets					
Disclosure on impact onto achievement of social, environmental, and economic effect becomes relevant, with concentration on the economic component not being excluded.	Collection, processing, and analysis of information on intangible assets in their wide understanding is a complicated process. It is difficult to identify and objectively describe certain intangible assets.				
Stress on the quality of information on intangil	ple assets				
Independent audit has to be the means of confirmation of reliability of integrated reporting as a full-scale company report. In such conditions, a company has no other option but to present quality and reliable integrated reporting with a set of indicators on intangible assets actually examined.	The methodology of integrated reporting audit is still not formed. The following key issue remains: whether audit has to cover certain sections (or, for instance, clearly identified indicators of intangible assets) or the report on the whole. Supplements to current standards on auditing and audit competences are required to resolve all contradictions.				
Integration of financial and non-financial indicassets in a single document	rators, which give complex characteristics of intangible				
Provides an additional array of information to stakeholders and increases of efficiency of their analysis in one information source rather than separate reports not linked with each other.	Accounting and management systems would not provide a sufficient amount of data. In the experts' opinion, implementation of the XBRL standard enabling automation of the key processes, would partly help in resolving this problem.				
Temporal dimension of intangible assets					
Orientation at short-, medium-, and long- term perspective. It is studied, how intangible assets affect the value of a company not only based on prior events, but also the future prospects are evaluated.	Requires high qualification of employees, application of non-standard thinking. Ukrainian companies may appear not prepared for such requirements. Currently the concentration on intangible assets having monetary denomination, is preserved. Integrated thinking needs to be developed.				

Source: own generalization based on Matuszyk and Rymkiewicz (2018), Morros (2016), Dumitru and Gușe (2016)

For instance, Zhuravka (2020) highlights the following indicators within the capitals connected with intangible assets:

- human capital based on age, volatility, sex balance, number of employees having study hours, training, and other indicators reflecting employees' competence, skills, experience, and motivation;
- intellectual capital number of patents, author's rights, software, licenses, and indicators reflecting the "organizational capital" (knowledge, systems, procedures, and protocols);
- social capital amount of charity donations, number of social programs, corporate social responsibility, social and other licenses.

However, it is worth noting that when forming such a set of indicators, one should consider a number of factors: field of activity and main business processes of a company, key intangible assets, etc.

## 5. Conclusion

The purpose of this research was to determine the advantages and disadvantages of integrated reporting in the context of disclosures on intangible assets of a company oriented at achievement of sustainable development goals. For this, key sustainable development principles and the status of their implementation in Ukraine were analyzed. Apart from that, the task was set to find answers to the questions on: (1) the current status of disclosures on intangible assets in official financial statements of companies; (2) identification of the place of intangible assets in a sustainable development economy; (3) possibility of comprehensive incorporation of intangible assets in integrated reporting of a company.

The research methodology was based on both theoretical basis and analysis of empirical data for understanding the completeness of intangible assets' disclosures in reporting of Ukrainian companies. The sampling covered only public companies, because in most cases it appears difficult to get access to reporting of non-public companies. The sampled companies represent various fields of the national economy. The sample presents enterprises of the service sector (telecommunications, transportation, banking services), mining, fuel and energy companies, industrial enterprises, and those representative of the pharmaceutical industry. This allowed us to reveal the industry specifics regarding the composition of intangible assets and the amount of information disclosed about them. The documents, reports, and statistic data used in the research, are reliable, as they were obtained from official open sources.

The research conducted results in the following conclusions.

Firstly, Ukraine expressed its support for the UN Sustainable Development Goals through official presentation in 2017 and identification of the key indicators of their achievement. The sustainable development strategy is connected with implementation of high-tech production, which requires innovative upgrade of technologies in the course of added value creation. The latter is impossible without intangible assets and knowledge. Thus, at least 3 of 17 sustainable development goals are directly related to intangible assets.

Secondly, in the course of studying financial statements of Ukrainian companies, it was found out that the share of intangible assets in the overall amount of assets is extremely low. On the whole, intangible assets in the financial statements are characterized with a rather limited volume of information. However, it is worth noting the qualitative progress of notes to financial statements under the IFRS compared with those prepared under the UAS.

Thirdly, the structure of integrated reporting, the capital it is oriented at, and combination of financial and non-financial indicators jointly allow forming and submitting accounting and analytical reporting on intangible assets with the purpose of comprehensive information support of external and internal users in the context of sustainable

development management. It was proved that integrated reporting is directly connected with evaluation of the status of achievement of sustainable development goals.

Fourthly, search for a set of optimal indicators for formation of the block of nonfinancial information on company intangible assets is a prospective field for scientific research.

## References

- 1. ATAMAS, P. Y., ATAMAS, O. P. Integrated corporate reporting: implementation issues. *Academic review*, n. 1., p. 78-85. Available: http://nbuv.gov.ua/UJRN/ao\_2015\_1\_12. Access 1th August, 2020.
- BAYNE, L. & WEE, M. (2019). Non-financial KPIs in annual report narratives: Australian practice. *Accounting Research Journal*. 2019, v. 32, n. 1, pp. 7-19. DOI: https://doi.org/10.1108/ARJ-02-2018-0033.
- 3. BELOVA I., SEMENYSHENA, N. Integrated Reporting of Institutional Units: Interpretation Field of the Concept. *The Institute of Accounting, Control and Analysis in the Globalization Circumstances.* 2020, issue 2, pp. 16-32. DOI: https://doi.org/10.35774/ibo2020.02.016.
- BELOVA, I. & SEMENYSHENA, N. Harmonization and Standardization as an Objective Necessity Development Institute of Accounting. The Institute of Accounting, Control and Analysis in the Globalization Circumstances. 2019, n. 3-4, pp. 7-20. doi:https://doi.org/10.35774/ibo2018.03.007.
- BEZVERKHYY, K. V. Integrated reporting of enterprise: improving the organization and methods of its compilation. *Accounting and auditing*. 2014, n. 5, pp. 23-28. Available: http://nbuv.gov.ua/UJRN/boau\_2014\_5\_5. Access 1th August, 2020.
- 6. BEZVERKHYY, K. V. The Concept of Sustainable Development: the Basis for the Emergence of Integrated Reporting of the Enterprise. *Scientific bulletin of the national academy of statistics, accounting and audit.* 2018, n. 4., pp. 75-88. Available: http://nbuv.gov.ua/UJRN/nvhastat\_2018\_4\_10. Access 1th August, 2020.
- 7. BUŽINSKIENĖ, R. Determination of the value of intangible assets in the companies of Lithuania. *Economics and culture*. 2017, n. 14, pp. 55-68, Available: https://www.researchgate.net/publication/322296281\_Determination\_of\_the\_Value\_of\_Intangible\_Assets\_in\_the\_Companies\_of\_Lithuania. Access 1th August, 2020.
- 8. CFA SOCIETY OF THE UK *UK study reveals investment professionals see further scope for improvement in annual reports.* 2015. Available: https://www.iasplus.com/en-gb/news/2015/07/uk-study. Access 1th August, 2020.
- 9. DELOITTE Clarity in financial reporting. Non-IFRS measures enhancements or embellishments? 2019. Available: ttps://www2.deloitte.com/content/dam/Deloitte/au/Documents/audit/deloitte-au-audit-non-ifrs-measures-enhancements-or-embellishments-230719.pdf. Access 1th August, 2020.

- 10. DUMITRU, M., GUŞE, G. R. Assurance of integrated reports: the state of the art. *Audit financiar*, XIV. 2016, n. 2 (134). Available: https://www.academia.edu/23191606/Assurance\_of\_integrated\_reports\_the\_state\_of\_the\_art. Access 1th August, 2020.
- 11. GARCÍA-GALLO M. D., JIMÉNEZ-NAHARRO F., TORRES-GARCÍA M., GIESECKE S. L., GUADIX-MARTÍN J. Incorporation of the intangibles into the spanish start-ups by activity sector and region. Improving their economic sustainability. Sustainability. 2020, n.12. Available: https://www.researchgate.net/publication/ 341580694\_Incorporation\_of\_the\_Intangibles\_into\_the\_Spanish\_Start-Ups\_by\_ Activity\_Sector\_and\_Region\_Improving\_ Their\_Economic\_Sustainability. Access 1th August, 2020.
- 12. IAS *1 Presentation of Financial Statements*. 2007. Available: https://www.ifrs.org/issued-standards/list-of-standards/ias-1-presentation-of-financial-statements. Access 1th August, 2020.
- 13. IASB *Conceptual Framework for Financial Reporting*. 2018. Available: https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework. Access 1th August, 2020.
- 14. IIRC *The International Framework*. 2018. Available: https://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf. Access 1th August, 2020.
- 15. KHARLAMOVA, O. Non-IFRS information in IFRS reporting: there is something to think about (part 1). *Auditor of Ukraine*. 2015, n. 11, pp. 44-48.
- 16. KOLOT, A. M. Corporate social responsibility: the evolution and the development of the theoretical views. *Economic theory*. 2013, n. 4, pp. 5–26. Available: http://nbuv.gov.ua/UJRN/ecte\_2013\_4\_2. Access 1th August, 2020.
- 17. KONDRASHOVA, T. M. & KONDRATKO, Kh. Yu. Amortization of intangible assets according to Ukrainian and International accounting standards. *Proceedings of Scientific Works of Cherkasy State Technological University. Ser.: Economic sciences.* 2011, v. 28, pp. 1, p. 114-119. Available: http://nbuv.gov.ua/UJRN/Znpchdtu\_2011\_28%281%29\_\_29. Access 1th August, 2020.
- 18. KOSTYRKO, R. O. Perspectives of integrated reporting. Bulletin of the National University «Lviv Polytechnic». Management and entrepreneurship in Ukraine: stages of formation and problems of development. 2014, n. 794, pp. 181-187. Available: http://nbuv.gov.ua/UJRN/VNULPM\_2014\_794\_27. Access 1th August, 2020.
- MATUSZYK, I. & RYMKIEWICZ, B. Integrated Reporting as a Tool for Communicating with Stakeholders Advantages and Disadvantages. E3S Web Conf. Scientific-Research Cooperation between Vietnam and Poland. 2018, v. 35. DOI: https://doi.org/10.1051/e3sconf/20183506004.
- MENSAH, J. Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. *Cogent Social Sciences*. 2019, v.
   DOI: http://dx.doi.org/10.1080/23311886.2019.1653531.

- 21. MINISTRY OF ECONOMIC DEVELOPMENT AND TRADE OF UKRAINE National baseline report: Sustainable Development Goals: Ukraine. 2017. Available: http://www.un.org.ua/images/SDGs\_NationalReportEN\_Web.pdf. Access 1th August, 2020.
- 22. MORROS, J. The integrated reporting: A presentation of the current state of art and aspects of integrated reporting that need further development. *Intangible Capital.* 2016, v. 12, n. 1. DOI: http://dx.doi.org/10.3926/ic.700.
- 23. PHILIPISHINA, L. M. The Evolution of Conceptual Approaches to Forming the Strategy of Stable Economic Development of Industrial Enterprises. *Bulletin of Priazovsky State Technical University. Seria: Economic sciences.* 2017, v. 34. pp. 172-180. Available: http://eir.pstu.edu/handle/123456789/ 16155. Access 1th August, 2020.
- 24. PUCCI, S., CENCI, M., TUTINO, M. & LULY, R. Intangible Assets: Current Requirements, Social Statements, Integrated Reporting, and New Models. In: Russ M. (eds) *Value Creation, Reporting, and Signaling for Human Capital and Human Assets.* Palgrave Macmillan, New York, 2017. DOI: https://doi.org/10.1057/9781137472069\_7.
- 25. SEMENYSHENA, N., KHORUNZHAK, N. & ZADOROZHNYI, Z.-M. The Institutionalization of Accounting: the Impact of National Standards on the Development of Economies. *Independent Journal of Management & Production*. 2020, v. 11, n. 8. pp. 695-711. DOI: dx.doi.org/10.14807/ijmp.v11i8.1228.
- 26. SEMENYSHENA, N., SYSIUK, S., SHEVCHUK, K., PETRUK, I., BENKO, I. Institutionalism in Accounting: a Requirement of the Times or a Mechanism of Social Pressure? *Independent Journal of Management & Production*. 2020, v. 11, n. 9, pp. 2516-2541.
- 27. UNITED NATIONS Global sustainable development report 2019: The future is now science for achieving sustainable development. 2019. Available: https://reliefweb.int/sites/reliefweb.int/files/resources/24797GSDR\_report\_ 2019.pdf. Access 1th August, 2020.
- 28. UNITED NATIONS Report of the World Commission on Environment and Development: Our Common Future. 1987. Available: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf. Access 1th August, 2020.
- 29. UNITED NATIONS Resolution adopted by the General Assembly on 25 September 2015. 2015. Available: https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A\_RES\_70\_1\_E.pdf. Access 1th August, 2020.
- 30. WUT, T.M. Intangible Assets and Sustainable Development. In: Leal Filho W. (Eds.) *Encyclopedia of Sustainability in Higher Education*. Springer, Cham, 2019. DOI: https://doi.org/10.1007/978-3-319-63951-2\_319-1.
- 31. YERSHOVA, N. Yu. Evelopment of methodological fundamentals of integrated reporting formation. *Scientific Bulletin of Uzhhorod National University*. *Ser.: Economy*. 2016, v. 1., pp. 451-459. Available: http://nbuv.gov.ua/ UJRN/ Nvuuec\_2016\_1%281%29\_\_77. Access 1th August, 2020.

32. ZHURAVKA, F., KRAVCHENKO, O., OVCHAROVA, N., OLEKSICH, Zh., MIROSHNYCHENKO, O. Impact of integrated reporting on enterprise valuebased management: evidence from Ukraine. *Problems and Perspectives in Man*agement. 2020, n. 18(2), pp. 154-165. DOI: 10.21511/ppm.18(2).2020.14.