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INVESTIGATION OF INTEGRATED REPORTS: A CROSS-SECTORIAL PERSPECTIVE

Final Degree Project

Supervisor Prof. dr. Lina Dagilienė

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KAUNAS UNIVERSITY OF TECHNOLOGY SCHOOL OF ECONOMICS AND BUSINESS

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Investigation of Integrated Reports: A Cross-Sectoral Perspective DECLARATION OF ACADEMIC INTEGRITY

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Summary

This work presents the theoretical framework of IR and identifies the general and sector-specific implementations of IR of the four sectors: energy and utilities, consumer goods, oil and gas, financial service. The topic were poorly researched in pior years, but have a huge impact for companies due to long-term value creation and presentation of business model to society. Additionally, the main guiding principles of IR: strategic focus, connectivity to the information and materiality, may be differently disclose in IR, which may lead to the different IR implementation between sectors.

Theoretical part of the research demonstrates the Integrated Reporting framework and presents challenges and opportunities of the study. One of the main theoretical point is value creation part, which shows the differences between the traditional reporting – financial statements, sustainability reporting and narrative reporting, and integrated reports. According to the past researchers and lack of the sectorial Integrated Reporting analysis, was decided to analyze the four sectors: oil and gas, energy and utilities, consumer goods, financial services, and evaluate the level of general and sector-specific implementation

Based on the score analysis, content analysis and correlation analysis results, the research verified both hyphotesis, that general implementation of the Integrated Reports is on medium level, while consumer goods and financial services sector-specific implementation is high and oil and gas, energy and utilities sector-specific implementation is low. Norutavičiūtė, Guoda. Integruotų ataskaitų tyrimas tarpsektoriniu požiūriu. Magistro baigiamasis projektas / vadovė Prof. dr. Lina Dagilienė; Kauno technologijos universitetas, Ekonomikos ir verslo fakultetas.

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Santrauka

Baigiamasis darbas pristato teorinį Integruotų ataskaitų modelį ir atskleidžia bendrąjį ir sektoriausspecifinį Integruotų ataskaitų įgyvendinimą keturiuose sektoriuose: energijos ir komunalinių paslaugų, naftos ir dujų, vartojimo prekių ir finansinių paslaugų. Tema buvo mažai nagrinėta ankstesniuose tyrimuose, tačiau turi didelės įtakos bendrovėms dėl ilgalaikio vertės kūrimo ir verslo modelio pristatymo visuomenei. Taip pat, pagrindiniai integruotų ataskaitų principai: reikšmingumas, į strategiją orentuotas požiūris ir ryšys su informacija, gali būti skirtingai atskleisti integruotose ataskaitose, ko pasekoje, gali atsirasti skirtingas interguotų ataskaitų įgyvendinimo lygis tarp sektorių.

Teorinėje dalyje yra apžvelgiama Integruotų ataskaitų struktūrą ir pristato Integruotos ataskaitomybės mokslo iššūkius, bei galimybes. Vienas svarbiausių teorinės dalies aspektų yra vertės kūrimo dalis, kuri pateikė skirtumus tarp tradicinių ataskaitų: finansinių ataskaitų, atskaitomybės ataskaitų, vadovų ataskaitų, metinių pranešimų ir integruotų ataskaitų. Dėl praetyje darytų tyrimų ir jų trūkumų buvo nuspręsta analizuoti keturis sektorius: energijos ir komunalinių paslaugų sektoriaus, naftos ir dujų sektoriaus, vartojimo prekių sektoriaus ir finansinių paslaugų sektoriaus bendrą ir sektoriui būdingą IR įgyvendinimą.

Pasitelkus indeksų analizės, turinio analizės ir koreliacijos analizės metodus, tyrimas patvirtino abi hypotezes, kad bendras integruotų ataskaitų įgyvendinimo lygis yra vidutinis, kai vartojimo prekių ir finansinių paslaugų industrijų specifinis-sektorinis integruotų ataskaitų įgyvendinimo lygis yra aukštas, o kitų dviejų sektorių: naftos ir dujų, energijos ir komunalinių paslaugų – žemas.

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Introduction

Relevance of the topic. The Integrated reporting (later - IR) is a new trend among companies. It became rapidly considerable since the establishing of International Integrated Reporting Council (IIRC) in 2010 (International Integrated Reporting Committee, 2011). The Integrated reports in some literature may be called One Report (Kaya, Erguden, Sayar, 2016). IR is based on the traditional reporting including more interaction between the enterprise and its stakeholders, presents the nonfinancial aspects related to value creation. The government body, which plays a significant role in promoting IR, implementing and issuing the guidelines, clarification notes and reporting norms is the International Integrated Reporting Council (IIRC). The IIRC decided to write a publication, which was an invitation - companies all over around the world was encouraged to share their suggestions and directions, which will be helpful in development of the concept (Oprisor, 2015). This leads to the clear view, that the concept of IR is still in design and constantly renewable, however, step by step business is recognizing the benefit of presenting the more complete picture of the Company. Based on the KPMG (2013), IR is giving the benefit to the company and stakeholders as it is built on the seven components: Business Model, Opportunities and Risk, Future Outlook, Strategy, Performance, External Environment and Governance. If the company is able to combine all these elements or even the majority part of them, it might build not only the story of the company, but also a full business model, which shows how external factors affects the business, how management's created strategy deals with it and how it is developing the business model.

As IR is strongly focused on business model, sectors might be an important determinant explaining diversity / differences in IR. Some sectors may take an additional attention to the IR preparation due to society attention, for example energy sector companies, which have a direct impact to the wastes and pollution (Aluchna, Hussain and Roszkowska-Menkes,2019). However, based on IIRC (2011), the main guiding principles of IR are strategic focus, connectivity to the information and materiality. This means, that all these three principles may have a different impact in sectors, as they are not built by the same business model and each time focusing on the completely different areas, for example, power plants, may be focusing on environmental friendly image, while finance industry will be focusing more on management, which leads to the strategy. The diversity of IR from the sectorial perspective was quite poorly researched (Eccles and Armbrester, 2011), therefore this master thesis will be based on theoretical IR framework review, value creation, future opportunities and challenges, diversity investigation on general and sector-specifical implementation and recommendations for the companies, how to increase the level of implementation.

The main aim of the master studies – to present the theoretical framework of IR and identify the general and sector-specific implementations of IR of the four sectors: energy and utilities, consumer goods, oil and gas, financial service.

Problem of the master studies – the implementation level of integrated reports between sectors.

Object of the master studies – integrated reports.

Tasks of the master studies:

- 1. To review the IR value creation and opportunities on theoretical approach.
- 2. To represent theoretical concept of integrated reporting framework.

- 3. To compose the IR research methodology, using cross-sectorial perspective.
- 4. To present empirical results of general and sector-specific implementation of IR.

The methods of the research: Analysis and generalization of scientific literature on IIRC framework. The data of the study were statistically processed using mode, median, averages and standard deviation by score analysis. Correlation analysis was performed to determine factor dependency. Moreover, analysis of static strokes, graphical analysis were used to present the development of IR and show comparison of entity's number, which prepares IR, between sectors

1. Limitations of Sustainability Development and Integrated Reporting

Sustainability reporting is not a new concept in the business world, however it plays a major role in IR framework. Therefore, the first part of this chapter will present the concept of sustainability development and will introduce us to the beginning of a sustainable delevelopment.

The second part of this reasearch will present to us the IR role in sustainability development, which during the past few years, has been analyzed by different researchers, who agree that the impact of business activities on society was one of the major reason, why entities started issuing reports, which provide information about their social and environmental perfomance (Roth, 2014). The demand of integrated reports arise, when organizations and some researchers have discussed the need to comabine all aspects of financial reporting and sustainability reporting in to a single - integrated report (Eccles and Krzus, 2010).

Finaly, the Chapter will be finished with the main key aspects of researched problem and will present previous researches findings and weaknesses.

1.1. The concept of sustainability development

Sustainable development is not very old concept in the business world, however the roots of sustainable development may find in the first part of XX century. Some scientist believe that sustainable development concept started existing in second part of XX century, after 1969 Santa Barbara oil split (Bebbington, Unerman and O'Dwyer, 2014). The disaster drew society attention to the consequences of industrial pollution. Countries from all over the world understood that industrial revolution changed the world drastically. Enterprises used nature resources in large amounts and transported over long distances, consequently, landscape changed rapidly: more and more useful resources quarry unclose, factories were built as fast as growing population and large quantities of waste appeared - landfill fields expanded (Benn, Dunphy and Griffiths, 2014). Finally, people all over the world understood that rapid economic growth and developing technologies may cause the pollution, decline of resources and damage landscape inevitably.

First time the limitations of sustainable development for industrial revolution consequences were raised in 1972 in Rome by the Club of the Rome. Different areas scientist from all Europe gathered in the Rome, where they released first article, which disclose the real view of the post-industrial revolution damage to the environment. The main state of the article was that rapidly growing economy and population leads to ecological catastrophe. Therefore, at the same year was organized one more assembly in the Stockholm. After this meeting, the scientists realised the main question: to create the concept and principles, which will be the guidelines for saving the environment.

The creation of the new concept and principles had taken 5 years, finally World Environment and Development Commission leading the chairmanship of Norwegian Prime Minister Gro Harlem Bruntland released a report in 1987 (United Nations, 1987). The "Our common future" report has set the term for sustainable development on the international stage. According to the report, the sustainable development concept was defined as a development that meets the current needs of society without diminishing the ability of future generations to meet their own, and the fight against poverty and the inclusion of everyone in the future – the axis of sustainable development.

Since 1987 sustainable development become more and more popular and relevant, therefore 1992 was convoke a new meeting from 180 countries in Rio de Janeiro – Rio Summit, where were formulated the main provisions of sustainable development (Burrit and Schaltegger, 2010). During the assembly were released the Rio Declaration on Environment and Development of 27 principles, which promote the sustainable development and legitimized as the main long-term development of society ideology. The concept of sustainable development was based on 3 equivalent components – environmental, economic and social development (Zvezdov, 2012). After this assembly sustainable development become widely known in the world.

Sustainable development is understandable as a compromise between the environmental, economic and social goals of the society, which supports the universal prosperity for present and future generations' achievements in the sustainable development strategy (Figure 1).



Fig. 1. The definition of sustainable development. (Johnston, Buckland, Brookes and White, 2008)

The EU Sustainable Development Strategy deals with issues and identify 6 sustainable development priorities (Borkowski, Welsh and Wentzel, 2010): mitigating global climate change; impact of transport; reduction of the environment; reduction of human health risks; more efficient natural resources use; reduction of poverty and social exclusion; addressing the challenges of aging.

Lithuania's priorities for sustainable development are as follows (Lietuvos Respublikos Aplinkos ministerija, 2011):

- 1. Balanced and sustainable development of economy and regional economies;
- 2. Reducing socio-economic disparities between regions and regions while preserving them
- 3. Distinctive character;
- 4. The main branches of the economy (transport, industry, energy, agriculture, housing, tourism) reduction of environmental impact;
- 5. More efficient use of natural resources and waste management;
- 6. Reducing the risk to human health;
- 7. Global climate change mitigation and mitigation;
- 8. Better protection of biodiversity;
- 9. Better landscaping and rational management;
- 10. Increasing employment, reducing unemployment, poverty and social exclusion;
- 11. Increasing the role of education and science;
- 12. Preservation of Lithuanian cultural identity.

To maintain a clean and healthy environment, business conditions becoming increasingly complex. Therefore, sustainable development opens new business opportunities. Moreover, it helps to create more perceptible environmental and social processes and products, in order to find new markets (Klarin, 2018).

The application of principles of sustainable development industrial activities is becoming an increasingly important factor in increasing competitiveness. Industrial enterprises, by reducing the environmental impact of environmental preventive measures, or reducing the water and energy per unit of production productivity. Decreasing productivity and increasing environmental protection costs, the cost of production decreases and companies might become more competitive (Astromskienė and Adamonienė, 2009).

Stakeholders are becoming more and more important in the concept of sustainable development increasing the competitiveness of industrial enterprises (Healy and Casey, 2013):

- 1. Consumers require products and services to be supplied with environmental protection and socially responsible enterprises. Products having a lower environmental impact overall. During the life cycle, demand in the EU and other developed countries is steadily increasing. In the future these aspects will have an increasing influence on consumer choice.
- 2. Investors and banks value companies and make decisions more and more with environmental risks.
- 3. Suppliers and customers who install quality and environmental systems often require that their partners would also apply these measures in their activities and achieve a certain level the level of environmental protection.
- 4. Public awareness in the field of environment is constantly increasing. Therefore, there is a possibility that in the future, society will not tolerate companies that do not take measures to mitigate negative impacts the environment.
- 5. Authorities are constantly enforcing laws regulating business activities.

Companies that use proactive tools for sustainable development are constantly on the move prepared for such changes, which guarantees the stability of the operation and competitiveness.

Sustainable Development should be integrated into the corporate policy and the main operational principles. This means that some changes related to a company's management are required: new policies, new methods and procedures. The management decisions should be reorganized in such a way as to ensure the communication with the shareholders and the Stakeholders and to be possible keep up-to-date reports available to all interested parties.

1.2. Integrated reporting role in sustainable development

A. Baltušienė and B. Karčiauskienė (2010) argue that the principles of sustainable development must be realized in practice through corporate social responsibility. Sustainable business is a socially responsible business, which scientifically reasonably formed with balancing social humanistic or ethical values and economic achievements. This means that CSR is about, how business align ther values and behaviour with the expectations and needs, therefore CSR demands the business manage the economic, social and environamental impacts of theirs operations to maximize the benefits and minimize thedownsides (Fontaine, 2013). The modern world rationally develops this balance purposefully with 3P framework (Measures, 2019):

– Profit;

- Planet;
- People.

To fully realize the idea of Corporate Social Responsibility or to fully disclose its essence, it is necessary for these the three components follow, i.e. in order to achieve economic goals, while at the same time ensuring ecological and social benefits the sustainable development of the environment (Bernatonytė, Vilkė and Keizerienė, 2009).

In order to broaden the concept of CSR, it is useful to mention CSR that might be compulsory and voluntary (Bagdonienė and Paulavičienė, 2010). According to the authors, a business organization, performing socially responsible activities (e.g., job creation and assurance, staff qualifications lifting, meeting quality requirements, adherence to ethical standards), as well as presenting themselves as a civic, socially responsible organization pursuing its essential goal - economic benefits.

A compulsory social responsibility activity could be the business activities associated with their financial statements, which are manifested in the publication of financial statements of an enterprise. The scientist may say that compulsory social responsibility activities can be understood as activities of a business organization carried out in accordance with the law, in accordance with agreements and ethical standards. The organization's social responsibility is based on the premise that it is promoted by organizations and organizations. The relationship between the community (or the community in which it operates) and it's members: an organization to be recognized as civilian or simply devoting a part of the finances and time to important problems, feeling responsible for the community to decide, without expecting a direct concrete response from the public, to more accurately benefit, which is available immediately or in the future. Voluntary responsibility can also be identified in the law documents, but they emphasize volunteering. Despite the fact, that social responsibility distribution, a company that only adheres to laws cannot yet called socially responsible. CSR the bottom line is that social responsibility is being implemented through voluntary additional initiatives, and the company will still be compulsory socially to win a socially responsible name liability activity.

Therefore, sustainability accounting is a approach, which helps companies to reach higher level of social responsibility. At the same time, organisations are expected to include non-financial aspects in their reports, because their impact (positive or negative) on the environment and/or the community migh have been huge.

In order to shift onto a sustainable development path, it will be necessary to develop intellectual and practical tools that enable us to think about, and then progress, our economic, social and environmental goals, simultaneously. Sustainability accounting techniques are an essential part of this process.

Currently, traditional financial accounting does not provide the information that is needed in order to ascertain whether deployment of financial resources is being carried out in the best possible way. For an organisation with a mission greater than maximising its own profit, such as the higher education sector, this is key.

Therefore, sustainability accounting is based on existing financial accounting frameworks and based on a combination of company law, accounting standards from regulatory bodies such as the Accounting Standards Board and the customs used by accounting professionals. Enterprises, which incorporate sustainable development into practise of accounting and finance profession include these factors (Johnston, Buckland, Brookes and White, 2008):

- 1. Savings. Resource efficiency and cost-saving opportunities can be identified by routinely collecting information on environmental and socially related expenditures and linking them to financial benefits and environmental and social performance.
- 2. Governance. The company law review recommendations that material impacts on environment and community be reported alongside financial information in the operating and financial review are also likely to affect the higher education sector.
- 3. Reputation. Similar quality control processes relating to the effect of the management of human and financial resources will be of interest to other 'customers' of the higher education sector including students, research funders, potential business partners and funding councils.
- 4. Risk management. There is increasing pressure to manage and report on non-financial risks.

The main concepts and principles that introduce busines to sustainability accounting are (Ioannou and Serafeim, 2015):

- the three dimensions of sustainability accounting;
- internal sustainability accounting;
- external sustainability accounting;
- shadow accounts and balance sheets;
- restoration and avoidance values;
- stakeholder identification.

Financial accounting traditionally records the financially related stocks and flows of an organisation in the form of the profit and loss account and the balance sheet, respectively. Sustainability accounting tries to provide extra information that can be thought of in three different dimensions (United Nations, 2015):

- 1. Timing in this dimension the information can provide a snapshot in time of the state of the stock of goods and services, or, over a period of time, the flow of goods and services arising from the stock.
- 2. Location of impact this dimension considers where the impact is located in the accounts.
- 3. Type of impact this dimension identifies the impact as either environmental, social or economic. The types of impact can be disaggregated into the five capitals.

Traditional financial accounting only includes the internal stocks and flows of financial value on the balance sheet and profit and loss account respectively. Sustainability accounting desegregates the internal accounts to show costs and benefits relating to economic, social and environmental performance (Homayoun, Al-Thani and Homayoun, 2016). It also extends the accounting boundary to consider the monetary value of external impacts.

As sustainable development is a predecessor of IR, there is no doubt that both of these concepts have a strong connection between the capitals and inter-dependencies. To be more precisely, IR is usually used to aid understanding of the relationship between sustainable development and value creation. It also may aid understanding of trade-offs across the interdependent and it does this by (Adams, 2017):

- Considering risks and opportunities presented by the external environment.

- Adopting a multi-capital approach.
- Acknowledging that creating value over time requires social and environmental stewardship and creating value for investors and other relevant stakeholders.
- Facilitating high- level engagement and a holistic approach (integrated thinking) throught its emphasis on connectivity and board oversight.

Sukhari and Villiers (2018), have presented that prior studies have discussed the potential business model disclosure to enhance corporate reporting and examined the extent of the disclosure of strategy, strategic goals, implementatation plans, effects on capitals ans stakeholders. However, the current studies is using the IR framework and the IIRC Business Model background paper to evaluate the change in the nature of strategy disclosure and especially business model disclosures and how they are related.

Finally, Integrated reports consist of both: financial and sustainable reports, which show not only operating performance, but an intangible resource also. The main difference, which explains the difference between integrated reporting and financial, sustainability reports that integrate reports explains how company's current operations may affect its long-term profit.

1.3. Key aspects of researched problem

The Integrated reports framework contains much more than the content elements, which will be covered in greater detail in the next section. However, for the sake of understanding the problem discussion, one has to be aware of one of the most fundamental concepts used in IR, namely the concept of the six capitals. The IIRC has identified six forms of capital that are used to shape the discussion of value creation. These are: financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital and natural capital (International Integrated Reporting Committee, 2011). Companies issuing integrated reports do not have to adopt these capitals or explicitly report on them. Their main purpose is to serve in the value creation discussion, as well as acting as guidelines to help companies think about what kinds of capital that they use or affect.

There are international studies, for example "The Sustainable Development Goals, integrated thinking and the integrated report" (Adams, 2017) that have considered the capitals but there is a lack of information regarding the differences between industries and reports in the companies. The main idea is to identify if there is a difference in disclosure between integrated reports and financial, sustainability reports or maybe there might be sector-specific influence to all three types of the reports. An industry has been considered an important factor in many research, pro

An industry, in which the company operates, might have a huge impact for comparison. Therefore, the reports between different industries cannot be compared between. This leads to the problem, that the integrated reports are not fully explored in practise, there is a lack of information regarding reports influence for industries. According to Erns & Young (2014), IR practise might increase a competitive advantage between the companies in industry. Moverover, even each organisation will have its own sensitive issues, depending on its sector activities, the IR is still important for investors and regulators.

The sector impact in IR was analysed by Adams (2013), Aluchna, Hussain and Roszkowska-Menkes (2019), Yildirim, Kocamis and Turuduoglu (2017) and other researches. However, the amount of made researches is not as high as it may be predicted. Probably, the huge impact for it has a limitations

of IR adaptability. Finally, almost all researches, who analysed IR and tried to compare it in sectorialperspective have agreed that specific sector might have a different disclosure of some capitals or lonterm value creation.

Based on prior researches, the main problem of project was formulated – the sector-specific implementation level between the companies, which prepare IR.

2. Theoretical assumptions for integrated reporting

Based on the prior years tendency in economy, the smaller role in the entity plays the creation of production or financial factors. The main and the most popular trend among enterprises became adding value creation and usage of resources and intangible assets. The publicity awareness regarding social and especially environmental issues, had an impact for companies and their image. The enterprises were forced to find different approach, by which they will have possibility to expose theirs ethically, properly and thoroughly documented activity. The publicity desires and curiosity in enterprise value development, the companies had to adopt their annual financial statements to the society needs and integrate more information about the enterprises activity in statements. This implies that corporate social responsibility should be included in the overall business strategy, the publication of individual reports on financial and non-financial aspects may imply some degree of independence between these factors (Adams, 2017).

The main purpose of the theoretical part is to present the IIRC framework and value creation, identify the future perspectives and challenges. Firstly, the chapter will overview the background of IR and will present the early researches of the concept. Second part, will idenfy the opportunities and challenges over the years and will present, how the approach cretes value. Third part will present the framework and and structure of IR. Finally, the chapter will be finished with overview of previous researches in cross-sectorial perspective.

2.1. Sustainability reporting as a background for Integrated reporting

The development of integrated reports consists of several steps: starting from accountants, the European Financial Reporting Advisory Group, the Sustainable Accounting Standards Board, the Climate standards Disclosure Board, the International Integrated Reporting Committee (IIRC), the International Federation of Accountants actions regarding non-financial reporting initiative implementation. The guidelines were created and renewable based on orientation regarding ecology and presenting to the world as sustainability reporting. The concept - sustainability reporting is not the only definition, which publicity may find in literature, articles. Usually sustainability reporting is called as social reporting, social accounting, social and environmental reporting, corporate social accountability, corporate social reporting, non-financial reporting, sustainability accounting, universal accounting and etc. As small companies are not so interested in public and do not have so much non-financial impact as the bigger companies, the integrated reporting predecessors are big enterprises reporting, which consists of annual financial statements and sustainability reporting, in which corporates presens their social responsibility.

To sum up, the main idea of sustainability reporting is an ambition to satisfy the corporate interests at the same time do not decrease the ability of future generations to meet their own needs. This approach is not new for society and corporates as sustainability development was pending from the beginning of XX century. In early findings, the researches and scientists (Sharachchandram, 2002 and Cash, Clark, Alcock, Dickson, Eckley, Guston, Jager and Mitchell, 2003) were trying to investigate, how sustainability have an impact for people welfare, population and protection the environment from pollution, which was caused by unregulated production activities and decrease in resources due to enormous size of productions. Sustainability reports first appeared in the 1970s, mostly in the US and in Western Europe, along with the first wave of social reporting (Stubbs and Higgins, 2014). The concepts of sustainable economic development found in the literature provide

several rituals that can reveal economic sustainability. From a general point of view, sustainable economic development is an evolution that ensures the continued economic well-being of the society, considering the existing technological, ecological and social limitations of society's activity.

Increasing in economic welfare and effective use of social factors in the management of resources determine the same or even greater potential for satisfying needs for future generations. It is widely agreed that this ability, to meet the needs, depends directly on the available resources or capital stock, only in this case capital is understood in the broad sense, as consisting of material capital, social and natural resources (INTOSAI Working Group on Environmental Auditing, 2013). Therefore, governmental and non-governmental organizations have begun working together to develop methodological tools that indicate that organizations should take responsibility and respect the law in order to preserve the environment and natural resources. The negative effects of climate change and the risk of natural resource imbalances have spurred volunteer organizations to integrate environmental organizations in order to keep their competitiveness in the market, as they do not create such significant profit, but focuses on the image in society and direct communication. They are using performance-based principles, the sustainability reporting as a measurement tool of such non-financial data is familiar practise.

Based on the past few decades, the popularity of sustainable reporting increased significantly all around the world in different sectors between public and non-public organizations. According to the Global Reporting Initiative (GRI, 2016), the sustainability report reveals the information regarding corporate sustainability, which may be easily compared with financial statements. Sustainability reports are systematically generated, helping organizations gain experience in setting goals and managing change. In this way, the report is like a key to interacting with the efficiency and impact of sustainability, whether positive or negative. According to the information provided by GRI, it can be concluded that the sustainability report is an important resource management tool for a sustainable global economic system combining long-term profitability with ethical behaviour in business (Isaksson and Steimle, 2008). As the members of the information society – clients, shareholders, citizens, politicians and executives can structure the knowledge gained and highlight important information related to the reputation of the organizations, a number of normative acts have been developed to ensure corporate social responsibility, which increasingly becomes a guarantor of success.

In the literature (Gould, Bratt, Mesquita and Broman, 2019), there are many and various tools, strategies, models and concepts for enterprises, which encourages them to pursue for sustainability. However, as this diversity grows, there is a lack of an all-embracing approach to these concepts that would create a common view of the interconnections between individual concepts. As the sustainability reporting do not have any strict guides or standards, if we will compare it with financial statements, usually corporates follow the Guidelines for Sustainability Reports issued by GRI Reporting.

According to the GRI guidelines, the Sustainability Report announces the economic, environmental and social impacts that an enterprise or organization brings to its daily environment. The report presents its organization's values and governance model, which show the link between the entity's strategy and its commitment to a sustainable global economy. GRI's mission is to make the sustainability reporting standard applicable to all companies or organizations. The basis of the GRI standard is a reporting system that refers to indicators and measurement methods, and also refers to the sustainability impact of the organization's efficiency. This allows for greater organizational transparency and the creation of stakeholder confidence in the organization (GRI, 2016). Based on these guidelines, the reports cane be used for the following purposes, among others:

- comparing performances within an enterprise and between different entities over the time;
- demonstrating the entity's influence and influence the entity by expectations about sustainable development;
- Benchmarking and assessing sustainability performance with commitment to the local and international laws, norms, codes, performance standards and especially voluntary initiatives.

According to the EU directive, which was sign on 2014, the large-public interest companies with more than 500 employess, including listed companies, banks, insurance companies and other companies designated by national authorities as public-interest entities are required to include non-financial statements in their annual reports from 2018. On of the concept, which was suggested as a recommendation, was Integrated reports, because the guidelines, which was published by Europien Commission are not mandatory and companies may decide to use international, Europien or national guidelines (Europien Commission, 2018).

Despite the development of non-financial disclosure, the concept of Sustainability Report, elements of the principles that characterize the way organizations announce their reporting, have not yet been identified during the development phase, and there has been discussion about who should reflect on them: what should companies report? What are the types of capital that an organization uses? Who are the organizations accountable? Is it possible to measure, manage and define social and environmental impacts? Is it really possible to capture and specify how the value is created and maintained over time? Answers to these questions at the development stage, but it should be emphasized that in the three years of intense collaboration between competent institutions and organizations, identified types of capital, the target audience for reports, and further searches (Kaya, Erguden and Sayar, 2016).

In conclusion, the sustainability reporting enables corporates and publicity identify and understand the influence on environment, which is made by the enterprises form different sectors. This approach leads to the main idea and purpose to encourage enterprise to be more aware and instead of gaining more profit, become more open in public eyes. This can only be achieved through transparency, clarity for all interested parties' information on the organization's goals in certain areas of sustainable development. It should be emphasized that the disclosure of voluntary economic, environmental and social information to organizations can also bring significant benefits – the assessment of favourable consumer and other stakeholders, a positive image of the organization, and the demand for products. All these factors could ensure the organization's further development.

2.2. Integrated reporting in the context of corporate reporting

In the context of today's global change, it is important to assess the contribution to these changes. The financial crisis, the rise in social exclusion, the widespread use of the global economic system or climate change are the factors driving continuous debate. The attempt to reduce or at least slow down the spread of adverse effects has created preconditions for developing risk management tools. The achievement of significant changes in all areas of human activity - production, consumption, services,

management, etc. - is more likely to be achieved by public authorities using society and business. Sustainability reports were made by sustainable development organizations, however, in the face of negative economic factors, preconditions for the development of an integrated report have emerged. The main idea of integrated reporting is to emerge a strategic and holistic groundwork of enterprises in order to present the overall aim in value addition to the society and business by itself(Kaya, Erguden and Sayar, 2016).

2.2.1. Opportunities and challenges

Stubbs and Higgins (2014) studied IR concepts and reporting practices. The problem of the structure of the integrated report was analysed by Abeyseker (2013). The main problem was the lack of guidence, how the IR should be presented, threfore the article porposed the template of IR. Studies related to this problem also have been developed by de Villiers, Rinaldi and Unerman (2014). The One Report's development trends and presentation practices for integrated reports have been extensively studied by Eccles and Krzus (2010), while Eccles and Saltzman (2011) were focusing more in benefits of Integrated Report and determine, that all benefits from IR may be dividable into 3 parts:

- Internal benefits;
- External benefits;
- Managing regulatory risk.

The first group consists of better decisions into allocation internal resources and the greater engagements with shareholders and other stakeholders, and lower reputational risk. The second group include the benefits, such kind: meeting the needs of mainstream investors who want deeper information, appearing on sustainability indices, and ensuring that data vendors report accurate non-financial information on the company. The last group is more related to the benefit on regulation, as being prepared for a likely wave of global regulation, responding to requests from stock exchanges, and having a seat at the table as frameworks and standards are developed (Eccles and Saltzman, 2011). Meanwhile, the Krzus (2011) expressed four main benefit groups of the integrated reports:

- Greater clarify;
- Better decisions;
- Deeper engagement;
- Lower reputation.

Based on author's opinion, a company achieves a better understanding about the relation between financial and non-financial performance, monitoring and review controls will be improved and systems and business processes will likely see increased efficiencies and effectiveness. This will have an impact on the way users of an integrated report will better understand the relation between financial and nonfinancial performance of the company. The information from integrated reports may provide rich evidence and thoughtful arguments demonstrating how better information and measurement leads to better decisions. Better-informed decisions about the relation between financial and non-financial performance will improve the efficient and effective use of capital and other resources. According to Krzus (2010), the deeper engagement means not only presenting reports in the paper form, but also use the internet central to this process. The internet, in addition, social media platforms, discussion forums, blogs, and podcasts are likely to lead to richer stakeholder engagement.

Stakeholders have more excess to detailed information regarding financial and non-financial outcomes and the relation between them. So a company's website should be simple and easy to navigate and permit visitors to perform their own analysis of information provided by the company (Eccles and Krzus, 2010). Finally, a lower reputational risk, with the emergence of the integrated report it can push a company towards more integrated risk management processes. What integrated reporting does is drive a chain of events that can help companies more effectively focus on risk.

The discussion paper from the Integrated Reporting Committee of South Africa, 2011, presents some benefits of an integrated report to an organization:

- The process of producing an integrated report is an excellent means for the leadership of the organization to gain an in-depth understanding of the organization's strategy and how it affects and is affected by environmental, social, financial and economic issues. The process also helps to improve the internal awareness of these issues and the impact they have on the organization.
- The leadership can demonstrate to a wide range of stakeholders that it fully understands the business and the challenges facing the business, and that is being effective in steering the organization towards a long-term sustainable future.
- The report provides a holistic view of the organization and is useful to any stakeholder who has a longer term interest in the organization enabling them to make an informed assessment of its ability to create and sustain value.
- Because the integrated report promotes transparency with both positive and negative issues and challenges, the impact would be greater trust and confidence in the organization and an enhanced reputation among stakeholders.
- By considering risks from an integrated perspective, risk management can be enhanced.
- The leadership's ability to demonstrate its effectiveness, coupled with the increase in transparency, could result in a lower cost of capital to the organization.
- As organizations look for the efficiencies required to address the challenges of resource constrains, they frequently realize cost savings in their business processes and discover ways to improve their products and services.
- This process of integration encourages the development of a culture of innovation in the organization.
- Organizations that understand and admit having external challenges are likely to be more competitive in the market place, and enjoy enhanced brand value and improved customer support.
- Organizations that are aware of their external threats, are better able to discover new business opportunities (International Integrated Reporting Committee, 2011).

The authors of IIRC framework seeks to adress many lonstanding perceived deficiencies in the standart governing corporate reporting expressed by environmental, social and governance investors, analysts, environment and other public interest groups, and other observers. The framework by itself did not adress the most of these issues in some meaningful way, then it would be recognize as a failure and unworthy of support or futher investement of time and resources (Soyka, 2013). Therefore, the framework offers clear direction on some main issues that have been the focus of much commentary in the overall investment community, shareholders activism among investors and their intermediares.

One of the main challenges of Integrated reporting is the need of audit. Therefore, due to emergence and development of the activity of CSR lead sto the social audit, another new concept in the literature. The degree of effectiveness of social audit is based on lots of different factors. Some specialist think that the lack of legislation in the field of social audit and its effect on the level of uniformity of social audit (Raluca, 2018). The effectiveness of social audit also depends to a large extent on the auditos' impartiality. Thus, specialized practice draws attention to the objectivity of the audit, which may be a cause for concern if external auditors are paid directly by the audited company, or if long-term financial relationships exist between the audited company and the audit firms' term, and to protect such relationship, audit firms can resort to impartiality (Raluca, 2018).

After analysing all above presented approaches regarding the benefits of integrated reports, we can assume that the three main groups are leaders of getting the most benefits: stakeholders and an organization as itself. It is still an argued thing, if the adaption of integrated reports is important and relevant for society and capital markets. Therefore, the most important role for starting integrated reporting adoption in the company plays the board of directors, not the influence from society.

2.2.2. Value creation

The integrated reports from other reports differs due to its complexity. Firstly, integrated reports create a broader thinking in managing, monitoring, and give a better understanding in full complexity of the value creation process and how this contributes to success over the time. Financial statements create very narrow understanding, which is based only on exact numbers and do not include the intangible enterprise asset. This means, that financial statements are focusing only in financial capital, while integrated reports consider all types of capital (manufacture, human, intellectual, natural and social). Considering all these above-mentioned capitals the enterprises may more precisely determine how each capital contribute for success and depends on each other. This perspective should consider not only the usage of resources, but risks and opportunities thought all companies value chain.

The value should be divided into two interrelated aspects – value created for (IIRC, 2013):

- The organization itself, which enables financial returns to the providers of financial capital;
- Others (stakeholders, society, governance, etc.)

The providers of financial capital usually are interested in the value, which an organization creating for itself as well as the value, which an organization creates for others, as value, which company

crestes by itself might affect the value, which is created for others. The Fig. 2 shows, how the company's created value for itself impacts the value created for others.

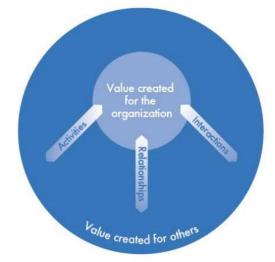


Fig. 2. Value created for the organization and for others. (International Integrated Reporting Council, 2013)

The value creation happens through a wide range of entity's activities, relationships and interactions in addition to those, such as sales to customers, that are directly associated with changes in financial capital. These include the effects of the organization's business activities and outputs on customer's satisfaction, suppliers' willingness to trade with the organization and the terms and conditions upon. As value is created over different time horizons and for different stakeholders through different capitals, it is unlikely to be created through the maximization of one capital while disregarding the others.

In order to better understand the value, which is created through Integrated reports, the comparison of Financial statements, Narrative report, Sustainability report and Integrated report is necessary.

As financial statements are focusing more on previous years and this year financial performance, integrated reports enable enterprise to evaluate their past and future performance alongside with connection to the enterprise strategy. Moreover, financial statements are related with regulations, the timeframe of these reports is short-term, due to changes in the market, while integrated reports may be in short-, medium- and long-term considerations due to difference factors. These differences mentioned above are only identified by International Integrated Reporting Committee (2011). The brief explanation of differences between financial statements, sustainability reporting and integrated reporting was identifying and published by International Federation of Accountants in 2015 (Figure 3).

	Financial reporting			
	Financial statements	Narrative report*	Sustainability reporting	Integrated reporting
Purpose	Communicate financial performance, position and cash flows in a specific reporting period	Provide context for financial statements and forward-looking information through the eyes of management	Communicate the entity's broader social and environmental impacts, strategies and goals	Explain to providers of financial capital how value is created over time
Audience	Current and prospective investors, lenders and other creditors	Current and prospective investors, lenders and other creditors	Investors (when including sustainability data in investor-focused communications) or multi-stakeholder (when preparing a stand-alone sustainability report)	Providers of financial capital. Others interested in the organization's ability to create value will also benefit
Scope	Information about: • Recognized assets • Liabilities • Equity • Income • Expenses • Changes in equity • Cash flows	 Risk exposure Risk management strategies and the effectiveness of those strategies Effect of beyond financial statement factors on operations and financial statement performance 	Significant impacts in the following performance areas: • Economic • Environmental • Social, including labour practices, human rights and broader societal influences • Governance	Content Elements: • Organizational overview and external environment • Governance • Business model • Risks and opportunities • Strategy and resource allocation • Performance • Outlook • Basis of preparation and presentation

Fig. 3. The differences between financial, sustainability and integrated reporting. (International Federation of Accountants, 2015)

Based on the comparison of reports on three criteria: purpose, audience and scope, the integrated reports consist of financial statements and sustainability reports and given a bigger picture of the company not only in one narrow area. Financial, sustainability reports communicate towards financial performance and broarder social, enrinromental impacts accordingy. The narrative report, for example, the Director's report, Management Commentary, Management's Discussion and Analysis, or Operating and Financial Review the purpose is to provide context for financial statements and forward-looking information through the eyes of management.

All three reports: Financial statements, Narrative report, Sustainability report audience is different, except the audience criteria, where the main audience is investors. Financial statements and Narrative

report are more important for investors and creditos, as they need the information about company's financial status, if it is working stable or profitable (depends of the purpose) and can pay the debts. Sustainability report and Integrated report provide to the audience more qualitative information; therefore, those reports are more important to third parties and multi-stakeholder. However, Integrated Reports might be important also for credit companies, as much, as for those, who are interested in the organization's ability to create value.

The last criteria – scope, identify, how strategy, governance, performance and prospects – together with external factors – influence the organization's ability to create value. The information should be framed in terms of implications on future value creation, rather than only in terms of what is or has been. The scope just confirms the above-mentioned statements, as Financial statement and Narrative report information is more focused on numbers and quantitive analysis, while sustainability reports focused only on significant impacts in performance areas, such as economic, environmental, social and governance (International Federation of Accountants, 2015). While Integrated reports are based on content elements, such as governance, business model, risk and opportunities, performance, outlook.

Based on all above-mentioned advantages and disadvantages, the integrated reporting creates a significant value for the enterprises (Kaya, Erguden and Sayar, 2016):

- If companies better understand the relationship between financial and nonfinancial activities by virtue of integrated reporting, and if they make progress in terms of auditing and control, then there will be an increasing efficacy and efficiency in the system and business process.
- With better and richer information and measurements, better decisions can be made. More consciously made decisions with respect to the relationship between financial and nonfinancial performances help in the efficient and effective utilization of the capital and other resources.
- Formation of the business understanding based on the fact that the existence of a business entity is not only based on economic and financial aspects but it is also based on environmental and social subjects and aspects is pretty difficult; in other words, putting the sustainable strategy into practice is a hard process. This difficulty also encompasses the specification of the relationships between accounting, finance, communication, investor relations, public order, legal and regulatory affairs, sustainability, marketing, and line activities team.
- Integrated reporting does not only accelerate the collection of economic, environmental, financial, and social issued under a commercial (business) strategy, but it also pushes companies to an integrated risk management system. For example, the more the responsibility of a company increases with respect to its social responsibility and the more the importance it places on sustainability increases, the more the concentration of that company on its credit risk (risk on its esteem) increases.
- Integrated reporting takes a company towards a chain of events, which requires being more effectively concentrated on the subject of risk.
- Integrated reporting helps companies better understand and conceive the effects of their strategic and tactical preferences on the society, because internal and external communications help the company strategy be in compliance with the social needs as a whole.

The framework by itself is centered on the concept of value creation – how the organisation creates value using its business model, taking various inputs and converting them into outputs and producing

outcomes (Soyka, 2013). Value creation contains numerous references to and expectations concerning how all framework elements should be addressed in integrated reports.

Firstly, the reporting entry should provide the description, which should be linked to its mission, objectives, business model, and use of external or owned assets to one another and to the creation of outputs, outcomes, and value. All this description should articulate the specific source of competitive advantage (e.g., innovation, intellectual capital, and environmental and social programs as well as articulate its ethics, values and culture. Moreover, it should describe how these are reflected in its use of and impact to the various capitals, especially including its relationships with key stakeholders.

Secondly, the entity should also describe how it tranforms various forms of capital into others, as well as any related adverse impacts on resources used of affected. The report should show how any inputs used are related to the capitals and provide differenciation in the market to the extent that capitals are material to understanding the resilence and robustness of the business model (Soyka, 2013).

Thirdly, the integrated report should connect the financial performance with performance affecting other capitals. Therefore, the framework encourages entities to enumerate positive as well as negative impacts on environmental quality, public health, cultural and civic institutions or other external stores of value in keeping with its guiding principle of "balance".

Finaly, adopting the integrated reports framework approaches and conventions outlined would enable an entity to produce a far more interesting and profound document than just a simple annual report or most existing sustainability reports. It would also necessarily involve retooling many internal structures, processes, internal reporting relationships and other aspects of how the entity operates (Soyka, 2013).

The deeper explanation and review in evolution of integrated reporting is created by one of the Big Four companies – Ernst and Young, which is shown in 5th figure. Based EY scheme almost half of century the enterprises were making their decisions based on financial statements and ignored the environment which is cannot be evaluate by numbers from balance sheet.

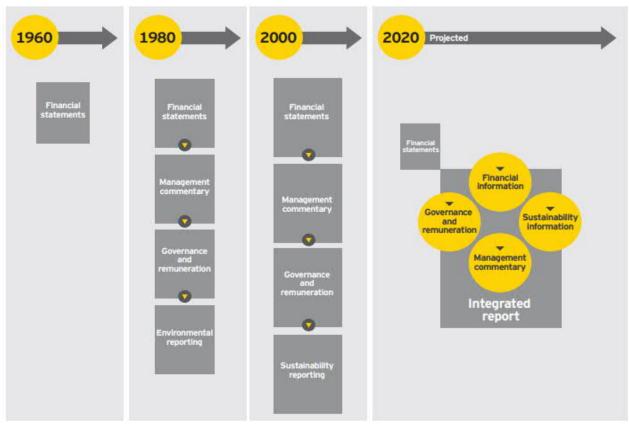


Fig. 4. The chronology of integrated reports evolution by Ernst and Young. (Ernst & Young Global Limited, 2014)

The IIRC, established in the United Kingdom, states that integrated reports provide clear and concise material on the organization's strategy, management, and outlook, reflecting the economic, social and environmental context in which it operates. Integrated accountability combines the most significant elements that comprise individual counterparts, as well as their interrelationships and dependencies among factors that can influence the organization's ability to design and maintain value in the short, medium and long term.

Integrated reports are still in the development stage and are constantly being refined. Based on Lithuania researches, the IIRC have at least 6 tasks for IR improvement (Šlimaitė and Tūskaitė,2015):

- Create programs that encourage experimentation with innovations for companies and investors;
- Expand the use of integrated reporting that reflects the value it receives in the first year after the pilot program;
- Work with other stakeholders to support and improve integrated reports;
- Increasing awareness among investors and shareholders, encouraging organizations to apply integrated reports;
- To explore the possibility of harmonizing reporting requirements in jurisdictions;
- Extending inter-institutional agreements on integrated reporting.

Value creation theme was analysed by Adams (2014), Soyka (2013), Roth (2014) and lots of other researchers. All most all researches agreed that value creation is one of two the most important IR features, the second is six capitals integration. IR do an excellent job of using graphics to communicate their sustainable value creation strategies and to convey their sense of the relationship among non financial and financial objectives.

To sum up, integrated reports are creating the higher value, as includes a bigger framework of the Company and could be shown for a larger extent of audience, when separate financial or sustainability reports. Moreover, IR creates a value throught encouraging companies to integrate the risk management system or understanding of the strategy and how the management decisions, external communication could support or contravene the strategy.

2.3. IIRC framework

As the primary purpose of Integrated reporting is to provide the information, how an organization creates the value over time to society, investors, shareholders, third parties. The integrated reporting framework is built on the principles-based approach. The content of the reports must be balanced between flexibility and prescription, which recognizes the different variations in individual circumstances of all types of organizations while enabling a sufficient degree of comparability across organizations to meet the needs of the relevant information. It does not represent the specific key performances indicators, methods of the measurement or disclosure of individual matters. The people, who are responsible for integrated report preparation, needs to take a thoughtful judgement, providing the internal and specific circumstances of the organization and must to determine which incidents are material for the company and how it should be disclosed, which disclosure methods, generally accepted measurement are appropriate.

As integrated reporting is not an old approach and it is becoming more and more popular in abroad, Lithuania's entities are still preparing only sustainability reports, the first integrated report was prepared in Denmark by the company "Novozymes", which is a manufacturing company in pharmaceutical sector. Later this initiative was take care by two organizations:

- Royal III Code Integrated Reporting Board in South Africa (IRCSA);
- International Integrated Accountability Council in the United Kingdom (IIRC).

By analysing the articles of the researchers (Kaya, Erguden and Sayar, 2016) of the integrated reports, it can be assumed that one report is rapidly gaining popularity for providing financial and non-financial information to users. If the financial aspect is recognized and standardized by the long-standing business representatives, the aspect of non-financial disclosure is the subject of discussions. At the initiative of non-governmental organizations, the report on the importance of non-financial information in value creation drew business leaders' attention and acknowledged that non-financial information is tantamount to financial gain for economic growth.

On January 25th, 2011 the IIRC of South Africa released a statement on "The Framework for Integrated Reporting and the Integrated Report. The framework encourages to use the GRI guidelines and recommended to identify the risks and opportunities, strategic objectives, evaluate the performance measurement using the key performance indicators and key risk indicators (Dumay, Bernardi, Guthrie and La Torre, 2017). After this the evolution of Integrated reports become very fast trend and at the end of 2013 was published the International Integrated Reporting Framework. All evolution chronology is shown in the 4th Figure.

Date	Development	Comments
12 September 2011	Discussion Paper Towards Integrated Reporting – Communicating Value in the 21st Century published	Comment deadline 14 December 2011
October 2011	Initial organizations participating in the IIRC Pilot Program announced	The Pilot Program is a two-year program for a group of companies who will work as a network of peer group organizations, exchanging knowledge and sharing experiences on integrated reporting.
July 2012	Draft Outline of the Integrated Reporting Framework	Not part of the formal consultation process, but the IIRC welcomed feedback
November 2012	Prototype of the International Integrated Reporting (<ir>) Framework</ir>	Not part of the formal consultation process, but the IIRC welcomed feedback
16 April 2013	Consultation Draft of the International <ir> Framework published</ir>	Comment deadline 15 July 2013
9 December 2013	International <ir> Framework published</ir>	Available on IIRC website

Fig. 5. The chronology of integrated reports evolution. (Kaya, Erguden and Sayar, 2016)

As the Integrated reports do not have any strict form, which will help to prepare standardized reports, it is one more important task for IIRC. Looking and reviewing the scientific literature, the different researches focusing more in a practise of Integrated Reports.

As mentioned above, there is a lack of methodological standards and guidelines in the preparation of an integrated report. This means that there is no global practice or recognized standards that are tailored to meet the needs of all users. It can be assumed that this is because compilation of integrated reports is not mandatory, except for the Republic of South Africa, and their preparation is likely to be more of an attempt to create an image of innovative organizations.

According to the Akadiri P. O., Ezekiel A. C., Olomolaiye O. (2012), believes that integrated reports contain information about company strategy, activity, management and sustainability, aiming to show stakeholders through visual tools, the influence of various factors on the organization's value creation over a period, and the potential risks in the future, based on the organization's historical data. Value creation is interpreted as a business model that interacts with the organization's resources, i.e. capital through the organization's business process, which translates them into results in the short-, medium-and long-term. At the end of the process, the organization either creates value or destroys it (Ernst & Young Global Limited, 2014). Increases the transparency and accessibility of information from both internal and external sources, standardization of information processes and information. A simplified report facilitates the analysis of the organization's performance for internal and external analysts, more intelligent information management ensures more efficient decision making. The integrated report is based on the view that the organization also performs a social function that is more important

than the short-term shareholder's welfare. The value must be developed in the long run, identifying the impact of the business process on the environment and society: both positive and negative. To achieve this objective, it is necessary to adhere to the appropriate management principles, which must also be reported in the integrated report, declaring the responsibility of the organization.

The reporting conditions also raise critical standpoints. There are two conditions that must be met for firms to publish complete, correct and comparable information on their performance relating to sustainability, and their impact on stakeholders, society and the environment. First, a body should publish reporting standards which would assure that the firms' reports were comparable and complete if they are applied by firms. And second, firms should apply these standards correctly and consistently in preparing their reports (Kayia, Erguden and Sayar, 2016).

The following criticism of Flower (2015) on this aspect highlights again the limited perception of stakeholders: "In my opinion, the above analysis makes it abundantly clear that the IIRC requires a firm to report on the effect on its activities on stakeholders, on society, and on environment only to the extent that there is a material impact on its own operations". Florian (2015) emphasize the primary focus on the shareholders and its neo-classical understanding of economics, the lack of orientation on human well-being, social justice and ecological integrity. While, the IIRC advocates the 'business case' – by maximizing a firm's profits, the society will also benefit.

The main value creation process is shown in 6th figure. The external environment, which consist of economic conditions, technological changes, environmental changes and society issues, is the environment there the enterprise operates. Mission and vision disclose the whole organization, shows its purposes, intensions goals. Governance is responsible for creating an appropriate oversight structure to support the ability of the organization to create value and in this case governance do not mean the exact country governance, it is a general name for all institutions, who has an impact for company. The business model is the core of the corporate and its draws a several of capitals as inputs and using the business activities, converts inputs into outputs. All these activities and outputs from organization lead to the outcomes, which have an effect to the capital. The capacity of the business model to adapt to changes (e.g., in the availability, quality and affordability of inputs) can affect the organization's longer-term viability (International Integrated Reporting Committee, 2011).

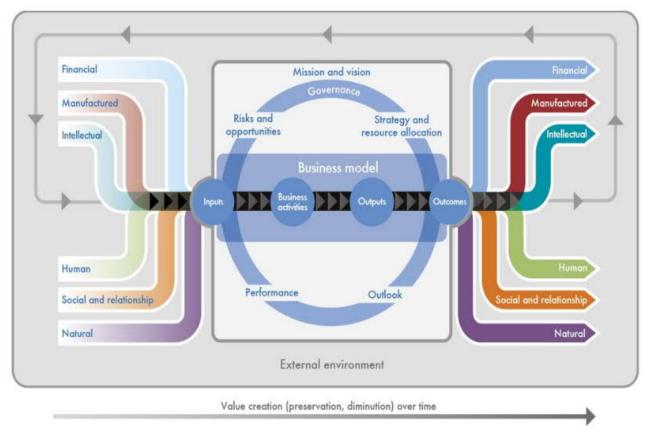


Fig. 6. The value creation process. (International Integrated Reporting Committee, 2011)

Outcomes are the internal and external consequences (positive and negative) for the capitals because of an organization's business activities and outputs. In order to identify the risks and opportunities, the enterprise must evaluate external environment in the context of corporate mission and vision. This evaluation helps to the enterprise track if the decisions and actions is still related to the strategy.

Integrated reporting Council created the guiding principles, how the Company's should prepare their reports. The guiding Principles informing the context of the report and how information is presented and it is shown in the 1st table.

Principle	Meaning
Strategic focus and future orientation	The report should provide insight into the organization's strategy, and how it relates to the organization's ability to create value in the short, medium and long term, and to its use of and effects on the capitals.
Connectivity of information	The report should show a holistic picture of the combination, interrelatedness and dependencies between the factors that affect the organization's ability to create value over time.
Stakeholder relationships	The report should provide insight into the nature and quality of the organization's relationships with stakeholders, including how and what extent the organization understands takes into accountand responds to their legitimate needs and interests.

Table 1. Guiding principles of Integrated reports preparation	on. (International Integrated Reporting Council,
2013)	

Principle	Meaning
Materiality	The report should disclose information about matters that substantively affect the organization's ability to create value over the shot, medium and long term.
Conciseness	The report should be concise.
Reliability and completeness	The report should include all material matters, both positive and negative, in a balanced way and without material error.
Consistency and comparability	The information in an integrated report should be presented on a basis that is consistent over time and in a way that enables comparison with other organizations to the extent it is material to the organization's own ability to create value over time.

Applying Guiding Principle – strategic focus and future orientation is not limited to the Content Elements 4E strategy and resource allocation and 4G Outlook. It guides the presentation of other content and might include (International Integrated Reporting Council, 2013):

- Significant risks, opportunities and dependencies flowing from the entity's market postion and business model.
- The opinions of those, who oversee management. For example, the relationships between past and future performance and factors that can affect the relationships, how the entity balances short, medium and long-term interests, how the organization has learned from past experiences.

Adopting this guiding principle includes clearly vision of how the continued availability, quality and affordability of the capitals contribute to the organization's ability to achive the strategy in the future and create value.

If integrated thinking is embedded into an organization's activities, the more naturally will the connectivity of information flow into managining decisions, analysis and reporting. The connectivity of information includes the connectivity between (International Integrated Reporting Council, 2013):

- The Content Elements. The Elements should be connected into a total picture that reflects the dynamic and systematic interactions of the entity's activities as whole. This means, that the entity should analyze of existing resource allocation, and how the organization will combine resources, should provide the information about how the entity's strategy is tailored when, new risks and opportunities are identified or past performance is not expected, link the entity's strategy and business model with changes in its externa; environment.
- The past, present and future. The analysis of the entity's activities in the past might provide the useful information about asset, capabilities and quality of management for the present and future decisions.
- The capitals. This should include the interdependencies and trade-ofs between different capitals, and about their availability, quality and affordability affect the ability of the organization to create value.
- Financial information and other information. Based on this point, the entity should provide expected revenue growth or arket share of technology, investment in human resources, development and researches, new business opportunities or cost reduction, revenue and profit growth of long-term customer relationships, customer reputation or satisfaction.

- Quantitative and qualitative information. Both information types are necessary for integrated report to show and present the conpany's value creation for itself and other. Usually companies might use KPIs in order to connect quantitative and qualitative information.
- Management information, board information and information reported externally.
- Information in the integrated report, information in the organization's other communications, and information from other sources. This means that all information should be consider and reviewed when company is preparing Integrated reports.

Integrated reports should not attempt to satisfy the information needs of all stakeholders, however they must provide the most useful insights about matters that are important to them, considering economic, environmental and social issues that also affect the ability to create the value. These insights might assist the organization to (International Integrated Reporting Council, 2013):

- Understand how stakeholders perceive value.
- Identify trends, which are rising in significance.
- Identify risks, opportunities and material matters.
- Evaluate strategy and develop it, if it necessary.
- Manage risks.
- Implement activities, such as strategic and aacountable responses to material matters.

The Materiality Guiding Principle is very important in Integrated reports. Materiality determination should include identification relevant atters based on their ability to affect value creation, evaluation the importance of relevant matters in terms of their potential effect on value creation, prioritization the matters based on importance, determination the information to disclose about material matters. Similar to other guiding priciples, the process should apply both positive and negative matters, this means that it should include risks and opportunities, favourable and unfavourable performance (International Integrated Reporting Council, 2013). This information may have a direct impact to organization by itself or affect the capitals owed by others.

The materiality determination process is based on the reporting boundary (Fig. 7). The boundary determination includes the boundary used for financial reporting purposes and risks, opportunities and outcomes associated with other entities or stakeholders beyond the financial reporting (International Integrated Reporting Council, 2013).

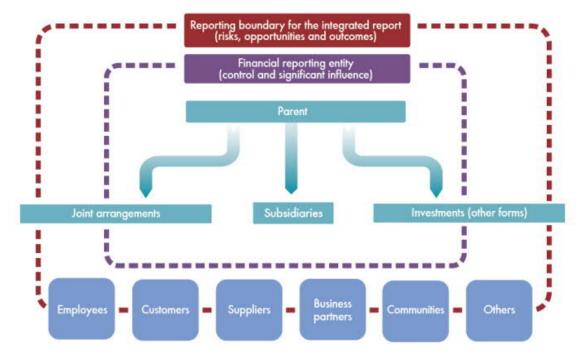


Fig. 7. Entities or stakeholders considered in determining the reporting boundary. (International Integrated Reporting Council, 2013)

The boundary central to the reporting is financial reporting entity, because using the financial reporting entity enables the information in the financial statements to serve as an anchor or point of reference to which the other information in an integrated report can be related and it is the financial reporting entity in which providers of financial capital invest (International Integrated Reporting Council, 2013). Therefore, tha main purpose of looking beyound the financial reporting boundary is to identify the opportunities, outcomes and risks that materially affect the entity's ability to create value.

The Conciseness guiding principle usually should be considerable together with other principles, especially with completeness and comparability. In order to achive the conciseness, the entity's integrated report should apply the materiality determination process, follow the structure and include cross-references, might link to more detailed information or external sources, express concept clearly, use favours plain language, avoid highly generic disclosure (International Integrated Reporting Council, 2013).

Reliability and compliteness is related to the robust internal control and reporting systema, stakeholder engagement, internal audit, etc. Maintaining and audit when entity prepares integrated report hels management review the report and exercise judgement in deciding whether information sufficiently reliable to be included (International Integrated Reporting Council, 2013). Some companies might describe the mechanisms employed to ensure reliability. However, if entity dertermining completeness, it might include the considerence of the extent of information diclose and its level of specificity, preciseness. Moreover, it might involve the considering potential concerns regarding costs and benefits, competative advantages and future-oriented information.

The last but not least one guiding principle – comparability, is very important due to the reason that organization creates value in its own unique way. Therefore, this guiding principle helps to ensure a

suitble level of comparability between organizations. The powerfull tools for enhancing comparability should include (International Integrated Reporting Council, 2013):

- Use benchmark data.
- Presenting information in the form of ratios.
- Reporting quantitative indicators commonly used by other organizations with similar activities.

As previously mentioned, the integrated report does not have a rigorous structure, so organizations should follow the recommendations of the IIRC when preparing their reports. It is worth to look at the theoretical solutions for integrated reporting, Hughen, Lulseged and Upton (2014) and Coulson, Adams, Nugent, and Haynes (2015), Abeysekera I., (2013), distinguishing the content elements that should constitute an integrated report. Thus, the report includes information about each element of the content (Table 2) which must answer the relevant question going down. The content elements are essentially related to each other and are presented in an integrated report so that connections between them are obvious, but not as separate sections. Organizations can differentiate capital categories. The IIRC initiative also mentions eight interconnected content elements (International Integrated Reporting Committee, 2011).

Content items	Notes
The organization's internal and external environment	In what environment works. An overview of the organization's activities and what external factors it affects. It is important to explain each aspect of the economic activity when describing the activities of the organization, of course, this does not mean that each area needs to be fully disclosed, but the number of details must be sufficient to assess the significant risks and their impact
Management	How management affects value creation. How the organization's management structure affects the ability to create value in the short, medium and long term
Business model	What is the business model of an organization? When developing a report, the starting point should be to explain the business model and the factors that determine the factors? A business model overview should cover every business process.
Threats and opportunities	What are the specific organization threats and opportunities that affect the ability create value in the short-, medium- and long-term, and how the organization intends to fight or use it? The organization's threats and opportunities section describes, how external factors affect business, how businesses identify and respond to them. Reports based on compliance place priority on negative risks, but integrated accountability also addresses business opportunities because of their value in the long run.
Strategy and resource allocation	Where the organization intends to go and how it intends to go there. Describing business processes refers to their dependence on resources in each process, which informs the recipients how the business depends on the capital and how it affects the business. Business generally depends on certain resources, the cost of managing these resources is included in the traditional company financial statements, but this does not bring any benefits because it does not reflect how the business works.

 Table 2. Content elements of integrated reports. (International Integrated Reporting Committee, 2011)

Content items	Notes
Efficiency	During what period of time the organization intends to achieve its strategic goals and what are the results of the evaluation of capital changes.
Perspective	What challenges or difficulties the organization may encounter in implementing their strategy and its possible impact on the business model and future outcomes. The reader of the report must have a general view.
Preparation of the report	How does the organization intend to determine what issues should be included in the integrated report and what is going to be quantified and estimated?

Based on the 2nd table, we can assume that the core of Integrated reporting is below listed five points (Stevenson, 2018):

- Boards should ensure, that their thinking is centred on value creation for the entity. This means, that they should be focused on strategy and long-term outcomes. A 'company centric' model means that boards are considering strategy, business model and purpose in the context of performance and future perspectives.
- Boards are in charge for adoption of a succeaful strategy for long-term value creation if they genuinely identify their key stakeholders and ensure they are creating value for them. This means, that Board should include the understanding of their needs and expectations. Therefore, it is related to reputation, social license to operate and responsibility through the supply chain.
- Boards should consider about multi-capitals thinking recognize the range of resources and relationships that they use and affect have intrinsic value. The board should include the understanding of trade-offs and impacts across the capitals, and both negative and positive outcomes.
- Boards should help investors with their need for relevant information that is communicated in the context of strategy, performance and prospects. Ussually they might be using Integrated reports to demonstrate how the board exercise oversight and a controls environment that are enhacing the quality abd consistency of data.
- Boards should use Integrated reports to show how their corporate governance is enhancing value creation over time. This means that investors and other stakeholders are increasingly intrested in the way company operates its values, athics, tranperancy, reputation, impacts on the capitals, especially in relation to long-term outcomes.

According to Coulson, Adams, Nugent and Haynes (2015), the capital concept of the integrated report proposed by the IIRC is not a new phenomenon as the capital concept was proposed in 2003, in SIGMA Guidelines (The SIGMA project, 2003). Five types of capital were then selected for sustainability: environmental, social, human, production and financial. According to the IIRC, the integrated report must cover the six types of capital as their interdependence and contribution to success (Table 3). This wider perspective was necessary to consider resource use, risk and opportunity, the value chain of an enterprise.

<u> </u>	in Integrated Reports. (International Integrated Reporting Committee, 2011)
Capital	Meaning
Financial	The most popular is meaning of this capital is pool of funds, which is available to the organization for use in the provision of services or production of goods and may be obtained thorough finance, for example debts, equity or grants, sometimes even generated through investments and operations
Manufactured	It is physical objects that are distinct from natural objects, which usually may be found in enterprise for use in the services or production and including buildings, equipment and infrastructure, for example roads, ports, bridges and waste and water treatment plants.
Human	This capital consists of people skills and experience, which motivates to innovate. It includes alignment with and support of the organization's governance framework and ethical values such as its recognition of human rights, ability to understand and implement an organization's strategies, and loyalties and motivations for improving processes, goods and services, including their ability to lead and to collaborate.
Intellectual	Intellectual capitals consist of intangibles, which may provide the competitive advantage. Intangibles including intellectual property, such as patents, copyrights, software and organizational systems, procedures and protocols, and the intangibles that are associated with the brand and reputation that an organization has developed.
Natural	Contribution to production or service provision. How the organization affects nature. What kind of pollution prevention measures is being taken by the organization? This capital includes water, land, minerals and forests and biodiversity, eco-system health.
Social	The organization's relations with each other and with the community, stakeholders, etc., in order to positively influence the collective well- being. Social capital includes common values and behaviours, key relationships, and the trust and loyalty that an organization has developed and strives to build and protect with customers, suppliers and business partners, and an organization's social licence to operate.

Table 3. Capital resources in Integrated Reports. (International Integrated Reporting Committee, 2011)

According to Coulson, Adams, Nugent and Haynes (2015), the capital concept of the integrated report proposed by the IIRC is not a new phenomenon as the capital concept was proposed in 2003, in SIGMA Guidelines (The SIGMA project, 2003). Five types of capital were then selected for sustainability: environmental, social, human, production and financial. According to the IIRC, the integrated report must cover the six types of capital as their interdependence and contribution to success. This wider perspective was necessary to take into account resource use, risk and opportunity, the value chain of an enterprise.

Nevertheless, the IIRC accepts the stewardship role of the firm in relation to elements of capitals that are not inputs to the production process. Only when this is imposed by law or contract the firm should disclose. The framework state 'were a stewardship responsibility is not imposed by law or regulation, the organization may nonetheless accept stewardship responsibility' (International Integrated Reporting Committee, 2011). Although the term 'may' is not obligatory.

The framework places a very important role on emphasis on stakeholder interactions and support as a key element of an organization's business model and value creation potential. According to the framework, value is not created by organization alone, because it is created based on the relationships with others. This means, that stakeholders are at the centre of any rational business strategy and ongoing consultations with important stakeholders at critical points in the entity's strategy formulation and execution process are essential. The main purpose of consultations with stakeholders is to use those consultations in formulating the strategy and resources allocation plans. Therefore, the purpose is not to tell to stakeholders of the entity's plans, but to obtain essential input that might be used to guide or inform the entity's overall business strategy and tactics, resource allocation decisions, and other key business activities (Soyka, 2013).

Not only is the suggested level and intensity of stakeholder engagement far greater than is currently practised in most organizations, according to the framework, Integrated reports suggests a dramatic levelling of the influence among different types of stakeholders. According to the latest information, providers of investment capital and their proxies exert far more influence than members of most other stakeholder groups.

The framework makes clear that the primary intended audience for integrated reports is providers of capital, it does not say or imply that their interests are more important than those of other enumared stakeholders, such as employees, customers, suppliers, business partners, regulators, local communities, legislators or policy makers (Soyka,2013). Putting all of these diverse interests on a level playing field might be a very big chance, and it would pose significant challenges for senior executives and staff as they sought to satisfy the expectations of newly empowered people and groups.

2.4. The Capitals of IR

It has been noted that one of the main indicators of economic efficiency is the report the ability of an organization to generate added value based on six-form capital. The IIRC distinguishes six categories of capital: financial, industrial, human, intellectual, environmental and social. So, an overview of the scientific and stakeholder information, based on the resources of the organizations recommended by the IIRC, will be used to evaluate integrated information between different industries in abroad.

2.4.1. Financial capital

Most of the researches describe the financial capital as a pool of funds. The main purpose of this pool of funds is to provide services and produce of goods. The financial capital includes both equity and debt finance. Therefore, the description focuses on source of funds, rather than its application which results in the acquisition of manufactured or other forms of fund. Due to this reason financial capital is a widely discussed and usually is understandable as financial statements, which shows the company's performance based on the such indicators as profit, liabilities etc. However, not all capitals can be purchased, much of the literature on the other capitals Serafeim (2016), considering the way in which things that were in previuos periods regarded as non-monetary variables have increasingly come to be monetized and commoditized such that a remarkable proportion of what is in the present regarded as financial capital relates to derivatives fundamentally based on different forms of capital (International Integrated Reporting Council, 2013).

2.4.2. Manufactured capital

Manufactured capital is essentially manufactures physical objects, which are not similar to natural physical objects. Therefore, it is usually seen as human-created, production-oriented equipment and tools. The disparity is drawn between plant and equiptment (tangible capital) and inventory (as a short-term asset). However, the identification of these items is agreed generally, accounting treatment, particulary in terms of valuation methods, taxation and depreciation, is more controversial. The International Integrated Reporting Council extends the concept of manufactured capital and identifies that is leased, controlled or owed by an organisation to included in public infrastructure available to the organization (Abeysekera, 2013). Manufactured capital is important for the sustainable development of an organization for two purposes.

Firstly, if the Company efficienly use the manufactured capital it enables the Company to be flexible, reponsive to the market and social needs, faster in getting the products or services in the market and innovative. Secondly, the most reaserchers emphasizes that manufactured capital and the newest technologies can reduce the use of resources, especially not the renewable ones, and focus more on human creativity, which leads to sustainable development and efficiency.

Based on the literature Serafeim (2016), which analyses the difference between "manufactured" and "manufacturing capital", the distinction between these two concepts is relatively minor, it is not a boundary between ecological economics (manufactured capital) and thewider discipline of economics (manufacturing capital). The definition of manufactured capital may be slightly narrower if we will talk about general aconomic. Many of the formulations relaited to the manufactured capital refer to the manufacturing industry specificcaly, despite the fect that manufactured capital is used accross all industries. Some authors may argue to the IIRC's statement and identify that manufactured capital may be interpreted as reffering only to a factory output, while others might say that manufactured capital is capital is captured in financial reporting as tangible asssets and intellectual capital as intangible (International Integrated Reporting Council, 2013).

Finally, it was decided that although manufactured capitals owed by an organization typically appear in the financial statements, it could not be added to financial capital. This is due to the fact, that manufactured capital is dependent upon the flow of financial capital to allow recources to be deployed to buil it. This means, that manufactured capital can embody remarkably elements of intellectual property, which is a component of intellectual capital, therefore, the manufactured capital often can be called as tangible capital.

2.4.3. Human capital

According to the sources, the definition of human capital have been around a long time ago, but started use later by the economists as a reaction to financial capital, having in mind that a company's perfomance also depends on its people and their knowledge, not only og technologies or firnancial asstes. The leaders may agree, taht hiring the right people usually is the most important decision, which they should make. In order to help to the hiring process, leaders should always notice the signals that might inform them of how much of a coworkers or institution builders can helo to determine if the candidant for the job is eligible. Therefore, the human capital is based on the premise that people's expertise and abilities are of a profound significance for the organizationans its operations (Serafeim, 2016). Some of the main and most important key aspects of human capital are

potential of people and their drive for innovations. These aspects may consist of people's positive attidute towards the governance model and especially to the ethical matters, leading to the way of how the organization deals with risk (Adams, 2017). The visible commitment and dedications to the company's strategy together with leadership skills, could make some of the other aspects of human capital.

Another point that highlights the investor perception is the way human capital is disclosed. The IIRC Framework describes human capital as 'people's competencies, capabilities and experience, and their motivation to innovate including their alignment and support for an organization's governance framework, risk management approach, and ethical values, ability to understand and implement an organization's strategy loyalties and motivations for improving processes, goods and services (International Integrated Reporting Committee, 2011).

According to Flower (2015) this definition implies that people do not have intrinsic value. Their value depends on the contribution they make to the organization. This automatically excludes people who are not inputs to the firm's business model. For instance, the local community that is harmed by poisonous gasses of the firm are not taken into account. This highlights the limited orientation of the integrated report. Disclosing nature capital has the identical orientation. The IIRC only covers to the extent that it is an input to the firm's production process, it does cover the impact on the environment.

This is the reason, why human capital is widely used by theoretical researchers, management theorists and economist. To sum up, human capital framework is based on the people's competencies, capabilities and experience, motivations to innovate. Human capital must involve peolpe, who are loyal and motovated for process improvements, ar able to lead, manage, collaborate, develop and implement an organization's startegy.

2.4.4. Intellectual capital

Intellectual capital involves intangibles associated with organizational capabilities and knowledge (Serafeim, 2015). More specifically, intellectual capital consists of intellectual property (e.g., patents, copyrights, software, rights, and licenses) and organizational capital (e.g., tacit knowledge, systems, procedures and protocols).

Some of the scientist (Serafeim, 2015 and Abeisekera, 2013) disagree regarding the gap between the companies book value and market value, because the firm value contains a high percentage of intangible resources. However, this type of undestanding is as much new as IR concept. Some findings from scientists shows (Imbrisca, Claus and Luciana, 2015), that non-financial information is more relevant for making investments decisions than among others. This is one of the reason, why the disclosure of intellectual capital in the annual report grows significantly.

Human capital is embodied in indviduals, who owns their human capital and can facilitate the creation of different forms of well-being, unlike a physical capital. In relation to human capital management, the concept human capital may be used to show the realtionship between people, who works in the company and the company by itself, as well as a relationships between the company and stakeholders outside it, for example indviduals within communities the company impacts, human rights of people within the supply chain – from whom risk should be decreased (International Integrated Reporting Council, 2013).

The intellectual capital concept could be based on the wide recognition that organisational knowledge needs to be managed (Dumay, Bernardi, Guthrie and La Torre, 2017). According to the newest researbers findings, the development of Intellectual capital resources creates the value for organisations, especially due to the fact that the majority of an organisation's assets are inatngible and there is no ways, who it can be presented on the balance sheet.

Intellectual capital is ussually clasiffied in three capitals (Virkus, 2014):

- Human capital. The capital refers to the competences and people skills, education and trainings, experience and other value characteristics of an organisation's workforce that in the minds of indviduals: know-how, experience, competences, skills, knowledge, expertise of the human members of the organization.
- Relational Capital. Includes all raletions a company entertains with extenal subjects, such as clients, partners, suppliers. Usually, external capital comprises relationship with suppliers and customers, trademarks, reputations and brands.
- Structual capital. This capital is separable from the Human capital by one sentence "that which is left after employees go home for the night". Therefore, it is clear, that the Capital consist of information systems, databases, intelecctual property, processes, policies, culture, etc.

In conclusion, the Intellectual capital involves organisational, knowledge-based intangibles, such as intellectual property, organisational capital and intangibles, which associate withe the brand and reputation. Intellectual capital can be used in the Company in order to assess the wealth of organizations.

2.4.5. Social capital

Social capital is easier to understand by company, as it is related to the relationship within and between the communities, groups, stakeholders and other networks. The main purpose of this capital is the ability to share information to enhance indvidual and collective well-being. It may consist of values and especially shared norms, and the relationships based on trust and demonstrated commitment to the benefit of external stakeholders. Social capital is very close to the Intellectual capital as it is also includes intangibles related to the brand and repurtation of the organisations, together with it's social license for its operations(Abeysekera, 2013).

According to the researchers, the social capital, could be norm, which might be define as as the levels of mutual trust and altruistic tendency in a society. Some findings may defien social capital as the existence of certain set of informal values or norms shared among the members of a group or community that permits cooperation among them. It may look like a set of networks from which benefits are received (International Integrated Reporting Council, 2013). If the set is strong it can be a resource by itself. For example, the strong network could lead to the greater cost for misbehavior. Moreover, the monitoring could be more effective because they may share the information.

To summarize, the whole Social capital is based on the relationship and networking. The participant sof that networking is not only the human, but it might be organizations, suppliers, stakeholders and the society. The strong network later can become a resource for the company and bring new perspectives.

2.4.6. Natural capital

Natural capital is defined as a composition of both renewable and nonrenewable resources and operations. These resources are used for goods or services producing to the benefit of the organization. When companies are describing the Natural capital in reports, ussually they explains about air, water, minerals, land and forest together with biodiversity and ecosystem health (Serafeim, 2016). Increasing pressures on nature, from climate change to biodiversity loss are degrading the ecosystems on which our economies depend. This creates the high risk for busines, especially for that business, which is based only on natural resources.

Numerous reasons exist why companies should deal with Natural capital and the economic valuation (Haustermann, 2018):

- Monetization allows to compare the environmental impacts as they are converted into one unit. This allows to integrate it in companies decision-making tools, for example cost-benefit-analysis.
- It helps to identify of hotspots in the supply chain or risk management. The potential disruption, due to environmental damages or resources-scarcities can be avoided and it can increase efficiency in sustainability iniciatives.
- Environmental damages can lead to the reputational risk. Company could be build their reputation for decades, but it hey do not evaluates the impact to the Natural capital, one mistakes can ruin the Company. Additionally, economic valuation permits to compare the sustainability performance of two products or companies, which might increase a competitive advantage.
- The economic valuation could increase the Companies image in society. Many companies, which have direct impact to the nature, use the economic valuation to highlight the benefit they are creating to the sociaty, this might to strengthen the social license to operate.

To sum up, the Natural capital is based on the renewable and nonrenewable resources, which have an impact for the companies performance. Some companies directly depends on the Natural capital and can increase the trust of the brand or reputation through the economic evaluation.

2.5. Integrated reporting cross-sectorial perspective

Not a huge amount of researchers worked on analysis based on cross-sectorial perspective, however it is very important and revelvant topic in nowadays. As Integrated reports are focusing into business model, influence to external environment and the role of the human capital, not only on financial aspects, those reports might become a competative advantage of the company or even industry.

According to Adams (2013), fiancial services sector adopts integrated reporting and thinks beyond compliance requirements not without a reason. Usually, the traditional banking sector has been focused on financial capital and human capital (IIRC, 2015). Therefore, the price/book vaue for banks has been below that of many other industries in the wake of financial crisis. This decrease in price/book value has been expressed by the market as a loss of conficence of financia services. The financial services sector in nowadays is based on the intellectual, human, social and relationship capitals to create competetive advantage and their relevant values are generated through deliberate,

tergeted and sustained efforts. In 2014, the Integrated Reporting Council have questioned around 20 financial services companies around the world and find out that (IIRC, 2015):

- Only 8 banks from 20, have been applied IR capitals terminology, while other 3 did not apllied it, but shared similar reports/concept.
- Those 8 banks, which are preparing the reports based on the IR Framework, had a tendency to report all six capitals.
- KPIs, which are provided from financial services antities, is related to outputs and outcomes.
- The Brand is assigned to the intellectual capital.
- The greatest consistency in KPIs relates to financial capital.

Overall, financial services sector, based on the previous researches, were built on outputs rather than inoputs or net contribution, when the capitals-related performance was applied. Moreover, the KPIs of all banks, which wew prepared the reports based on Integrated reporting framework, were overlap and focusing more on financial perspective rather than relationship or social capital. There is a high posibility that previous studies have had an impact on the financial services sector and the Integrated reports of this industry are more complete and unique than five years ago.

There is no doubts, that energy and utilities and oil and gas industries, have a significant impact to the society and environment. Therefore, the previous researches are related to these two sectors. For example, the Aluchna, Hussain and Roszkowska-Menkes (2019), have been analyzing on of the largest Polish petroleum company – LOTOS group and find out, that on operational level, Integrated reports represents a story, which the entity provides to its constituencies, translating external expectations Aluchna, Hussain and Roszkowska-Menkes (2019). Overall, the research have been sorted out the evolution of LOTOS's reporting practise, combiantion of strategies and the moral context emerging from the communication.

Yildirim, Kocamis and Oker (2017) have analyzed the energy sector's Integrated reports around the world and compare with Turkey. The reaearch have disclosed that due to greenhouse gases and other pollutants, these entities are liable to generate more human-oriented and environmentally sustainable politics, while they are maximating their energy supply. According to the researchers, the most widely described capital is natural, while other three capitals – intellectual, social and relationship had only several KPIs, such as employee satisfaction, customer hapiness, supplier satisfaction, donation and sponsorships, patent applications, R&D investments.

Almost all researchers in the past in Integrated reporting energy, gas sectors, have been focused on natural capital and its KPIs as entities have been marked out as the main capital of these two industries. Therefore, there is a lack reasearches, which will present, how other capitals have an influence to above mentioned sectors and create value for the entities or contributes to theirs strategies, business models.

One more sector, which was analyzed in the past – consumer goods industry. Eventhough, this sector has a significant impact to society, it is not analyzed so widely as other industries. However, the International Integrated Reporting Council (2013), agrees that this is sector is the most motivated to prepare Integrated reports because it enables communication long-term value and enhancing trust and transperancy. Sometimes, the consumer goods sector Integrated reports might show the holistic

picture of business model, which leads to reporting on various capitals. Unfortunatey, this sector is still not analyzed as much as others, threfore, it is a great exmaple for the future researches.

Finally, all four above mentioned industries have a significant impact for all six Integrated reporting capitals and are the most analyzed by other authorts if we will compare with other sctors. Therefore, the deepen analysis of four above mentioned sectors will be chosen in this report in order to determine the Integrated reporting general and sector-specific implications.

Based on all above analyzed articles of the researches of the IR, we can assume, that IR framework should consist of 8 content elements Hughen, Lulseged and Upton (2014):

- The organization's internal and external environment
- Management
- Business model
- Threats and opportunities
- Strategy and resources allocation
- Efficiency
- Perspetive
- Preparation of the report

Those 8 content elements might present the Company's general implementation of IR, as well as all 6 capitals disclosure:

- Financial
- Manufactured
- Human
- Intellectual
- Natural
- Social

Presentation of the 6 capitals might disclose the sector-specific implementation of IR. Without two requirements (8 content elements and 6 capitals disclosure), according to the Kaya, Erguden and Sayar (2016) the reports should be comparable, which will be, if the entity will follow the IR preparation guidlines, and entity should apply standards consistently and correctly. Additionally, entity's IR must present long-term value creation.

Finally, based on theoretical framework and prior researches (Adams, 2013, IIRC,2015, Yildirim, Kocamis and Oker, 2017 and Aluchna, Hussain and Roszkowska-Menkes, 2019) in sectorialperspective, we can assume, that sector have an impact in disclosure of capitals in IR. For example, energy and utilities sector might disclose more information about nature sector, while financial services sector will be more focused on Intellectual and human capitals. Therefore, after reviewing the scientific literature and prior researches, based on IIRC recommendations regarding IR preparation, IR general implementation and sector-specific implementation will be evaluated.

3. Research methodology

In order to to assess and verify the theoretical aspects an empirical research was conducted. The main purpose of this empirical research is to present the general implementation of IR in selected sample, based on the IIRC (2013) presented content elements and reveal, how different IR development and presentation are based on industry (sector-specific implementation). For this reason, a quality assement framework was developed and presented in 3.2. chapter.

The main tasks for this empirical research are:

- 1. Based on the correlation analysis, present the relationships between the criterias.
- 2. Using conduct content analysis method review entities' IRs and determine, how each criteria have been fulfilled.
- 3. Describe the sector's IR general implementation and sector-specific implementation, using score analysis method.

The methods, which will be used in reasearch. Content analysis will help to evaluate the qualitative IR information (Eccles and Ambrester, 2011). Based on the Adams (2017) the relationship between criterias in selected sample IR will be presented using correlation analysis. Meanwhile, score analysis will help to present the impementation of IR on general purpose – the whole sample IR preparation level, as well as sector-specific implementation, according to the Pistoni, Songini and Bavagnoli (2018).

3.1. Sample selection and data source

The sample of research was selected based on the number of entities, which prepares the Integrated reports, and previous researches. Based on the IIRC website (<u>http://examples.integratedreporting.org/organisations</u>), there are 228 entities from 13 industries, which prepared the IR in 2017. Some of these entities prepared the reports in previous periods also. Figure 8 presents, how the entities are distributed across the sectors.

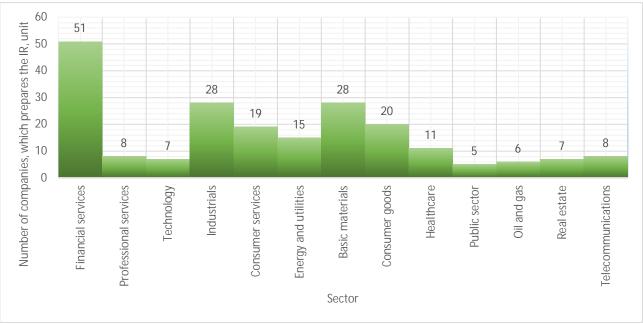


Fig. 8. Entities, which prepare IR, distribution based on the industries (prepared by author, based on IIRC website).

Based on Figure 8, it was decided to choose sector – financial services for the research, as the 51 company from 228 operate in the mentioned industry. In order to have two similar sectors and compare the results between them it was decided to choose the consumer goods sector.

Previous theoretical researches (Yildirim, Kocamis and Oker,2017) deeply analyze the energy and utilities sector, therefore this sector was selected as one of the cross-sectorial research object. Additionally, as competitor sector was selected the smallest sector from Figure 8 – oil and gas industry.

	Europe	e South America North America		Asia	Africa	Australasia
Financial convisas	22	3	1	7	14	3
Financial services	23	3	I	/	14	3
Professional services	4	0	1	0	2	1
Technology	4	0	1	0	2	0
Industrials	12	1	1	5	8	1
Consumer services	10	0	0	3	5	1
Energy and utilities	9	0	2	1	2	1
Basic materials	12	1	1	2	12	0
Consumer goods	7	2	3	4	3	1
Healthcare	5	0	0	4	2	0
Public sector	1	0	0	0	3	1
Oil and gas	3	0	0	1	1	1
Real estate	4	0	1	0	1	1
Telecommunications	2	0	0	2	4	0

Table 4. Distribution between industries and continents.

As selected sectors consist of companies from different continents (Table 4), it was decided to choose 6 companies from each sector and different region. Additionally, the selected companies were choosen by the criteria, that company should have been prepared IR at least for 3 years (2015-2017).

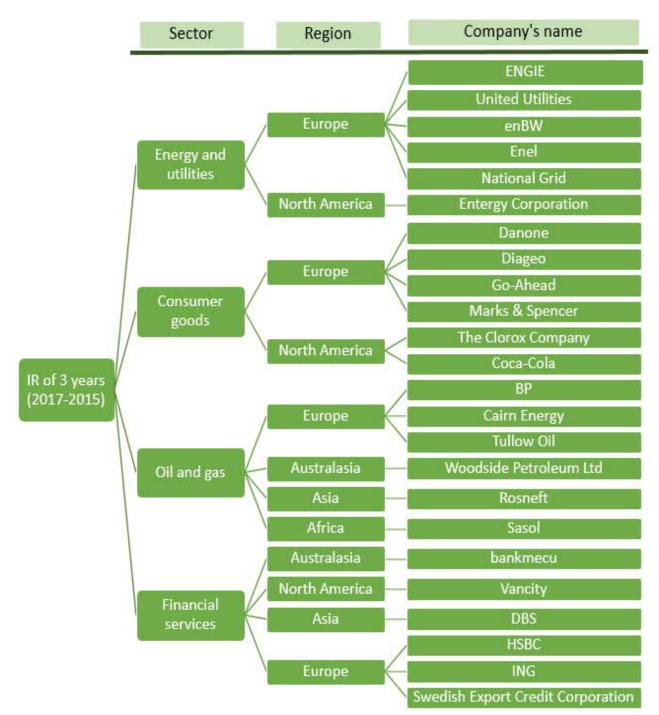


Fig. 9. The final sample for the cross-sectorial research.

The final selected sample is presented on the Figure 9. The majority of the companies are established in Europe and there is no companies from South America due to limitations of the years of IR and industries.

3.2. Research evaluation methodology

Content analysis is widely used for social sciences for qualitative and quantitative content analysis. Quantitative content analysis is more related to making statistical inferences from text populations, comparison between them, and hypothesis testing, while qualitative content analysis non-statistical and explanatory methods involving inductive reasoning (Kurkartz, 2014). Qualitative content analysis is therefore more interested in the text itself and based on text in its entirety (Bortkowski, Welsh and Wentzel, 2010). Thus, qualitative content analysis was chosen to approach the research objective.

Additionally, based on IR theoretical framework content analysis method will be used together with the score analysis method. Scoring system is usually apply and valid in the fields of CSR and sustainability, with reference to social and environmental reporting (Pistoni, Songini and Bavagnoli, 2018), especially in the field of accounting, concerning disclosure in financial reports. Both methods will let measuring the general implementation of IR and how capitals are disclosed in IR depending on the sector. This analysis leads to two research questions and hypotheses:

Correlation analysis was performed to determine factors dependencies. The correlation analysis determines the strength of the statistical relationship between the observed variables. Correlation indicates the direction of the relationship - with the value of one variable increasing, the value of the other variable may increase or decrease. Therefore, the correlation coefficients gain values from -1 to 1 (Figure 10). A positive correlation coefficient indicates that as the variable increases, another variable increases. A negative correlation indicates that one variable decreases as the one increases. The value closer to -1 or 1 means that the relationship between the variables is stronger (Čekanavičius, Murauskas, 2002).

Size of Correlation	Interpretation
.90 to 1.00 (90 to -1.00)	Very high positive (negative) correlation
.70 to .90 (70 to90)	High positive (negative) correlation
.50 to .70 (50 to70)	Moderate positive (negative) correlation
.30 to .50 (30 to50)	Low positive (negative) correlation
.00 to .30 (.00 to30)	negligible correlation

Fig. 10. Rule of Thumb for Interpreting the Size of a Correlation Coefficient (Med, 2012).

Research Question 1: What is the general implementations of integrated reports?

Hypothese 1: General implementation of Integrated Reports of selected sample is a medium, based on the selected attributes.

Reasearch Question 2: What is the sector-specific implementations of integrated reports?

Hypothese 2: Financial services and consumer goods sectors show a high sector-specific implementation, while energy and utilities, oil and gas sectors show a low sector-specific implementation.

3.2.1. Score analysis

In order to answer these questions and to test the hyphoteses, firstly was developed a framework for quality assemenet of integrated reports. To define the list of items and build a scoring model for the research, we have referred to the 18 attributes of the implementation of Integrated Reporting (IIRC,2013; Adams, 2017; Pistoni, Songini and Bavagnoli, 2018; Eccles and Armbrester, 2011):

- the report includes all 6 capitals;

- the report creating the holistic image of business;
- the report shows the engagement to stakeholders;
- streamlines communication;
- the report disclose the risks and opportunities of business;
- internal processes are optimized;
- makes reporting is more efficient;
- shares and disclosed the best practice;
- the report reveal the improvement of reputation;
- the report creates the trust and transperancy;
- demonstrate the long-term value creation;
- shortly describe the story of the company;
- the context is revealed understandable and simple for society;
- the report includes financial ratios;
- entity disclose main struggles and challenges, which were faced during the year;
- the company has received the acknowledgements and awards for IR;
- internal audit;
- third-party verification has been carried out.

All these criterias was grouped into four groups, based on the purpose:

- Content: the report shows the engagement of the stakeholder; streamlines communication; the report identifies the risks and opportunities of the business; shares and discloses the best practice; the context is revealed understandable and simple for society; the company disclose the main stuggles and chalenges, which were faced during the year.
- Assurance and reliability: the company has received the acknowledgements and awards for IR; internal audit or third-party verification has been carried out.
- Value creation: the report creating an image of holistic business; internal processes are optimized; makes reporting is more efficient; the report reveals the improvement of reputation; demonstrate the lont-term value creation.
- Form: the report includes all 6 capitals in the report; the report creates the trust and transperancy; shortly described the story of the Company; report includes financial ratios.

The following step was to develop a scoring system to assess each variable comprised in each of the four areas of the Integrated reporting scoring method. Quantitative scales have been defined to measure comparative positions and allow further analysis (Pistoni, Songini and Bavagnoli, 2018).

Concerning the Content area, the proposed variables were evaluated. All 6 criterias will be scored between 0 - 5, based on the additional descriptions in table 5. 0 points will be given if the content criterias is absent and 5 will be given if it is high quality. The maximum score of this part is 30.

Table 5. Scoring system of each variable of the content area.

Score	Description
0	Content element is absent
1	Content element is used, but the disclosure is poor and do not based on IR requirements
2	Content element is used, but the disclosure is low and there are some minimal requirements used from IR framework
3	Content element is used, but the disclosure is medium and there are some minimal requirements used from IR framework
4	Content element is used, but the disclosure is high and there are some minimal requirements used from IR framework
5	Content element is used, but the disclosure is high and there are all requirements used from IR framework

Value creation area score was determine based on the scoring system in table 5. All 5 elements in this area are scored between 0 - 5, when 0 is content element is absent and 5 the content element is used, but he disclosure is high and there are all requirements used from IR framework. The maximum score of this part is 25.

Form area will be scored by two scoring method. Firstly, the content element: integrated report included all 6 capitals in the report, will be scored by the table 6 - number of pages. While the rest content elements will be scored by table 5. The maximum score of this part is 20.

Score	Description
0	Not applicable
1	0-1 pages
2	2-4 pages
3	6-8 pages
4	8-10 pages
5	10 and more pages

Table 6. Scoring system of the form area: all 6 capitals presentation and disclosure.

Concerning the Assurance and reliability area, a score of 0 was given in the case of the absence of each of the three items, while a score of 1 was assigned in the case of the presence of the item. The maximum score for this area is 3. The final scoring system is resented on the Figure 11.

Content

- Engagement of stakeholders;

- Streamlineds communication;

- Identification of risk and opportunities of business;

- Shares and discloses the best practise;

- The context is understandable and simple for society;

- Disclosure of the main struggles and challanges between the last year.

Maximum score - 30.

Value creation

- Creating an image of holistic business;
- Internal processes are optimized;
- Reporting is more efficient;

- Report reveal the improvement of reputation;

- Demonstrate the lont-term value creation.

Maximum score - 25.

Assurance and reliability

- Received the acknowledgements and awards for IR;

- Internal audit;

- Third-party verification has been carried out.

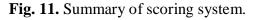
Maximum score - 3.

Form

- Includes all 6 capitals in the report;

- The report creates the trust and transperancy;
- Shortly described the story of the Company;
- Report includes financial ratios.

Maximum score - 20.



The whole scoring system will be applied to 24 entities, from 4 sectors, for 3 years (2017-2015). The total amount of reports, which will be analyzed, is 72.

4. Integrated report research on cross-sector perspective

Based on the theoretical framework and chosen methods the section below indicates the result from the research. First sub-section indicates correlation analysis results based on each sector for 2017. The second sub-section indicates score and content analysis results. Both of these methods will provide an information about IR general level in industry, the correlation between different indicators and which capital dominates in each sector.

4.1. Corelation analysis results

To determine if there is a statistically significant correlation between the observed variables, we use Bartlet's sphericity criterion. Firstly, the correlation is checked for energy and utilities sector only for 2017. We have 6 entities from this sector and the criteria are: employee numbers, revenues, EBITDA, net debt amount, the number of KPIs for financial capital evaluation, pages of the report. The 4 table indicates the results in energy and utilities industry.

	Number of employees (number)	Revenues (Eur million)	EBITDA (Eur million)	Net debt (Eur million)	The number of KPI in financial capital (number)	Number of pages of the report (number)
Number of employees (number)	1,00					
Revenues (Eur million)	0,82	1,00				
EBITDA (Eur million)	0,71	0,98	1,00			
Net debt (Eur million)	0,69	0,97	1,00	1,00		
The number of KPIs in financial capital (units)	0,14	0,10	0,00	-0,01	1,00	
Number of pages of the report (number)	-0,14	0,41	0,55	0,55	-0,30	1,00

Table 7. Correlation matrix from energy and utilities sector's entities.

Based on the Figure 10 and Table 7, we can notice, that the strongest direct connection is between revenues and number of employees, EBITDA and number of employees, EBITDA and revenues and Net debt and Revenues. The direct link between net debt and number of employees is also strong. The medium direct connection can be noticed between number of pages of the report and EBITDA, number of pages of the report and Net debt and number of pages of the report and revenues. The indirect connection can be seen between number of the pages of the report and the number of KPIs in financial capital, however, this connection is very weak. There is almost no connection between the number of KPIs in financial capital and number of employees, revenues, EBITDA and Net debt.

To sum up, if the revenues of the company is increasing in the energy and utilities sector, the EBITDA and Net debt have a tendency increase also. Moreover, there is no indicators in the matrix, which might have the stong indirect connection for the rest criteria.

The correlation matrix between consumer goods sector's entities are indicated in the table 8. The matrix information is from 6 entities' integrated reports from 2017.

	Number of employees (number)	Revenues (Eur million)	EBITDA (Eur million)	Net debt (Eur million)	The number of KPI in financial capital (number)	Number of pages of the report (number)
Number of employees (number)	1,00					
Revenues (Eur million)	0,45	1,00				
EBITDA (Eur million)	0,21	0,82	1,00			
Net debt (Eur million)	-0,22	0,37	0,80	1,00		
The number of KPIs in financial capital (units)	0,47	0,32	0,04	-0,25	1,00	
Number of pages of the report (number)	-0,47	-0,49	-0,19	0,04	-0,90	1,00

Table 8. Correlation matrix from consumer goods sector's entities.

Consumer goods industry shows different correlations between criteria than energy and utility sector. The strong direct connection is between EBITDA and revenues and Net debt and EBITDA. However, in consumer goods sector there is a strong indirect connection between number of KPIs in financial capital and number of pages of the report. This means, that if we have an increase in number of pages, the number of KPIs in financial capital is revealed less. Medium direct connection could be found between number of employees and revenues, net debt and revenues, number of employees and number of pages of the report. The other direct and indirect connections between citerias are very low and do not affect each other.

To sum up, the correlation matrix from goods consumer secotr entities in 2017, strongly affect each other only between 3 pairs, while one of them indicates very strong indirect connection. The radically different situation may be in the oil and gas sector (table 9).

	Number of employees (number)	Revenues (Eur million)	EBITDA (Eur million)	Net debt (Eur million)	The number of KPI in financial capital (number)	Number of pages of the report (number)
Number of employees (number)	1,00					
Revenues (Eur million)	0,22	1,00				
EBITDA (Eur million)	-0,04	0,82	1,00			
Net debt (Eur million)	0,09	0,99	0,87	1,00		
The number of KPIs in financial capital (units)	-0,39	0,09	0,19	0,14	1,00	
Number of pages of the report (number)	-0,63	0,57	0,67	0,66	0,51	1,00

Table 9. Correlation matrix from oil and gas sector's entities.

Oil and gas sector's correlation matrix shows ony strong connection between EBITDA and revenues, net debt and revenues, net debt and EBITDA. However, the number of pages criteria has an affect for all other criterias, for revenues, EBITDA, net debt and number of KPIs the connection is medium, but negative, while connection between number of employees the connection is negative and medium. This means, that there might be a tendency in the market, that more employees the company, which prepares IR has, the shorter report it prepares. The rest connections do not affect each other significantly.

	Number of employees (number)	Revenues (Eur million)	EBITDA (Eur million)	Net debt (Eur million)	The number of KPI in financial capital (number)	Number of pages of the report (number)
Number of employees (number)	1,00					
Revenues (Eur million)	0,84	1,00				
EBITDA (Eur million)	1,00	0,88	1,00			
Net debt (Eur million)	0,99	0,90	1,00	1,00		
The number of KPIs in financial capital (units)	-0,06	0,31	0,00	0,06	1,00	
Number of pages of the report (number)	0,56	0,88	0,62	0,65	0,27	1,00

Table 10. Correlation matrix from financial services sector's entities.

Based on the financial services sector's matrix (table 10) there is a very strong positive connection between EBITDA and number of employees, net debt and EBITDA, Net debt and number of employees, revenues and net debt. The more revenues the entities in financial service sector earn the Integrated report pages number tends to increase, while the other criteria have a medium positive connection between number of pages of the report. The only one negative connection there is between KPIs number and number of employees, however this connection is very weak.

In order to, compare the results between sectors and the tendency of all analyzed companies, the separate correlation matrix was prepared (table 11).

	Number of employees (number)	Revenues (Eur million)	EBITDA (Eur million)	Net debt (Eur million)	The number of KPI in financial capital (number)	Number of pages of the report (number)
Number of employees (number)	1,00					
Revenues (Eur million)	0,66	1,00				
EBITDA (Eur million)	0,73	0,62	1,00			
Net debt (Eur million)	0,76	0,60	0,97	1,00		
The number of KPIs in financial capital (units)	0,07	0,14	-0,01	-0,01	1,00	
Number of pages of the report (number)	0,11	0,52	0,47	0,44	-0,07	1,00

The overall result shows, that there is no strong negative connection between criterias for all analyzed companies. However, the strongest positive connection is between net debt and EBITDA. The matrix shows, that there is a positive connection between EBITDA, net debt and number of employees, which indicates that the growth in employee number tends to grow the EBITDA and net debt. The number of KPIs almost do not have a connection between other criteria, except the revenue. However, this connection is weak.

The correlation analysis shows the different connections between each sector. This means that each sector might has its own view on the business model and financial indicators, for example, financial services sector's entities are more willing to cover their assets with liabilities than capital. Therefore, the correlation analysis shows that differencies in sectors might have a significant impact for 6 capitals disclosure in the Integrated reports, each sector might disclose more information about one of the capital, which has the biggest impact for the company.

4.2. Score analysis results

To assess the quality of integrated reporting in the four different areas: Content, Assurance and reliability, Value creation and Form (in order to answer RQ 1 What is the general implementations of integrated reports? and test HP 1 Integrated Reports issued by selected companies show a medium general implementation and RQ 2 What is the sector-specific implementations of integrated reports? and test HP 2 Financial services and consumer goods sectors show a high sector-specific implementation, while energy and utilities, oil and gas sectors show a low sector-specific implementation.), firstly, findings referring to different sectorial sample of 6 reports per 4 industries, when overall sample findings of 24 reports and, then will be examined the differences between 2017, 2016 and 2015 reports (total amount of reports -72).

4.2.1. Score analysis results of energy and utilities sector

Table 12 shows the result of score analysis assurance and reliability area, when 6 reports of 2017 were analyzed. Based on results, the majority of the selected company's, which operates in energy and utilities sector (83,33%) were awarded for IR, some of them were awarded for sustainability view in IR, while others for the whole IR as a concept. Only half sample described and presented the internal audit procedures in IR, while enBW, Enel and Entergy Corporation skipped this part and decided to reveal any information about entity's internal audit procedurs in 2017. The same company – Entergy Corporation did not presented the infomation about external audit, while the rest 5 companies did.

Assurance and reliability elements	Yes	Yes, %	No	No, %	Total	Total, %
The company has received the acknowledgements and awards for IR	5	83,33	1	16,67	6	100,00
Internal audit	3	50,00	3	50,00	6	100,00
Third-party verification has been carried out	5	83,33	1	16,67	6	100,00

Table 12. Results of assurance and reliability area of scoring analysis of energy and utilities sector.

Table 13 shows the results of other 3 areas – Content, Value creation and Form. Based on the results, each element is distributed differently, however in some elements where is a possibility to see the tendency, for example value creation element – disclosure of improvement of reputation, all 6 reports presented the information in high quality, however the description meet only minimal requirements, according to IR framework.

Element	Frequencies								
Content	0	1	2	3	4	5	Total		
Report shows the engagement of the stakeholder	0,00%	0,00%	33,33%	50,00%	16,67%	0,00%	100,00%		
Streamlines communication	0,00%	0,00%	0,00%	50,00%	50,00%	0,00%	100,00%		
The report identifies the risks and opportunities of the business	0,00%	0,00%	0,00%	16,67%	50,00%	33,33%	100,00%		
Shares and discloses the best practise	0,00%	0,00%	33,33%	50,00%	16,67%	0,00%	100,00%		
The context is revealed understandable and simple for society	0,00%	0,00%	0,00%	66,67%	33,33%	0,00%	100,00%		

Content	0	1	2	3	4	5	Total
Company disclose the main stuggles and challenges, which were faced during the year	66,67%	16,67%	16,67%	0,00%	0,00%	0,00%	100,00%
Value creation							
Report creating an image of holistic business	0,00%	0,00%	16,67%	33,33%	33,33%	16,67%	100,00%
Internal processes are optimized	0,00%	0,00%	0,00%	66,67%	33,33%	0,00%	100,00%
Reporting is more efficient	0,00%	16,67%	16,67%	50,00%	0,00%	16,67%	100,00%
The report reveal the improvement of reputation	0,00%	0,00%	0,00%	0,00%	100,00%	0,00%	100,00%
Demonstrate the long-term value creation	0,00%	16,67%	0,00%	0,00%	16,67%	66,67%	100,00%
Form							
Information included all 6 capitals in the report	0,00%	0,00%	0,00%	33,33%	33,33%	33,33%	100,00%
The report creates the trust and transperancy	0,00%	0,00%	0,00%	66,67%	33,33%	0,00%	100,00%
Shortly described the story of the Company	0,00%	0,00%	0,00%	0,00%	16,67%	83,33%	100,00%
Report includes financial ratios	33,33%	0,00%	50,00%	16,67%	0,00%	0,00%	100,00%

The frequencies do not present the overall information about each element from all three areas. In order to understand the overall results between the elements and sector, the descriptive analysis was done (table 14).

Table 14. Descriptive analysis results of content, value creation, form areas of scoring analysis of energy and utilities sector.

Element	Desc	criptives		
Content	Mean	Median	Mode	Stand. Dev.
Report shows the engagement of the stakeholder	2,83	3,00	3,00	0,75
Streamlines communication	3,50	3,50	4,00	0,55
The report identifies the risks and opportunities of the business	4,17	4,00	4,00	0,75
Shares and discloses the best practise	2,83	3,00	3,00	0,75
The context is revealed understandable and simple for society	3,33	3,00	3,00	0,52
Company disclose the main stuggles and challenges, which were faced during the year	0,50	0,00	0,00	0,84
Value creation				
Report creating an image of holistic business	3,50	3,50	4,00	1,05
Internal processes are optimized	3,33	3,00	3,00	0,52
Reporting is more efficient	2,83	3,00	3,00	1,33
The report reveal the improvement of reputation	4,00	4,00	4,00	0,00
Demonstrate the long-term value creation	4,17	5,00	5,00	1,60
Form				
Information included all 6 capitals in the report	4,00	4,00	4,00	0,89
The report creates the trust and transperancy	3,33	3,00	3,00	0,52
Shortly described the story of the Company	4,83	5,00	5,00	0,41
Report includes financial ratios	1,50	2,00	2,00	1,22

According to the table 14, most of the companies do not provide or provide on a poor-quality information about main stuggles and challenges over the last years, the mean of this element is only 0,50. For example, 5 elements mean is equal to 4 or more, this means that information is provided on highly quality, but provided information do not fit to IR framework. Median and mode for each element are almost the same, except streamlines communication element, creation of holistic picture of the business elements. Based on standard deviation results, 4 elements are deviated from the mean more than 1 - creation of the holistic image of business, making reporting more efficient, demonstration of long-term value creation and inclusion of financial ratios.

To understand the overall result of the scoring analysis of the energy ant utilities sector for all four areas, the summary table was prepared (table 15).

	Range	Min	Max	Mean	Median	Mode	Stand. Dev.
Total Content score	0-30	14	20	17,17	17,00	17,00	2,14
Total Assurance and Reliability score	0-3	0	3	2,17	2,50	3,00	1,17
Total Value Creation score	0-25	15	21	17,83	17,50	#N/A	2,32
Total Form score	0-20	10	16	13,67	13,50	16,00	2,25

Table 15. Overall scoring analysis results of energy and utilities sector.

The overall energy and utilities sector scoring analysis shows that the sector-specific implementation of IR is in medium quality, as the results shows that the mean of content and assurance and reliability is close to the maximum, while other two areas – value creation and form, mean is close to them medium. Mean, median nad mode results are close to all areas, except value creation, the result of mode is not applicable, because there are no repetitive values. The standard deviation of all areas are similar and vary between 1 and 2.

Overall, the second hyphotesis of the research is deny, because the scoring results presents medium quality of sector-specific implementation.

4.2.2. Score analysis results of oil and gas sector

Table 16 shows the result of score analysis assurance and reliability area, when 6 reports of 2017 were analyzed from oil and gas sector. All sample companies from oil and gas sector have disclosure the information about internal and third-party audit in IR. However, not all of the companies were awarded for IR implementation.

Table 10. Results of assurance and renability area of scoring analysis of on and gas sector.									
Assurance and reliability elements	Yes	Yes, %	No	No, %	Total	Total, %			
The company has received the acknowledgements and awards for IR	2	33,33	4	66,67	6	100,00			
Internal audit	6	100,00	0	0,00	6	100,00			
Third-party verification has been carried out	6	100,00	0	0,00	6	100,00			

The frequencies result of the other three areas scoring analysis is presented on the table 17. The results present the lower results than in energy and utilities sector. The high results shows 4 elements – report reveals the improvement of reputation (16,67% of score 4), demonstration of long-term value creation

(33,33% of score 4), report includes all 6 capitals (16,67% of score 4, 16,67% of score 5), short description about the somnay (16,67% of score 4).

Element	Frequencies									
Content	0	1	2	3	4	5	Total			
Report shows the engagement of the stakeholder	0,00%	0,00%	33,33%	66,67%	0,00%	0,00%	100,00%			
Streamlines communication	16,67%	16,67%	66,67%	0,00%	0,00%	0,00%	100,00%			
The report identifies the risks and opportunities of the business	0,00%	0,00%	50,00%	50,00%	0,00%	0,00%	100,00%			
Shares and discloses the best practise	0,00%	33,33%	50,00%	16,67%	0,00%	0,00%	100,00%			
The context is revealed understandable and simple for society	0,00%	16,67%	50,00%	33,33%	0,00%	0,00%	100,00%			
Company disclose the main stuggles and challenges, which were faced during the year	66,67%	16,67%	16,67%	0,00%	0,00%	0,00%	100,00%			
Value creation										
Report creating an image of holistic business	33,33%	50,00%	16,67%	0,00%	0,00%	0,00%	100,00%			
Internal processes are optimized	50,00%	33,33%	16,67%	0,00%	0,00%	0,00%	100,00%			
Reporting is more efficient	16,67%	50,00%	33,33%	0,00%	0,00%	0,00%	100,00%			
The report reveal the improvement of reputation	16,67%	50,00%	16,67%	0,00%	16,67%	0,00%	100,00%			
Demonstrate the long-term value creation	0,00%	16,67%	16,67%	33,33%	33,33%	0,00%	100,00%			
Form										
Information included all 6 capitals in the report	0,00%	0,00%	16,67%	50,00%	16,67%	16,67%	100,00%			
The report creates the trust and transperancy	0,00%	33,33%	50,00%	16,67%	0,00%	0,00%	100,00%			
Shortly described the story of the Company	0,00%	16,67%	0,00%	66,67%	16,67%	0,00%	100,00%			
Report includes financial ratios	33,33%	33,33%	16,67%	16,67%	0,00%	0,00%	100,00%			

Table 17. Frequencies results of content, value creation, form areas of oil and gas sector.

Table 18 identifies the descriptives analysis result of all three areas. The lowest mean presented on the elements – disclose of the main struggles and challenges during the year (0,50), internal process optimization (0,67) and report creation of the holistic image of business (0,83). Median resuls are very similar to mean and mode. The standard deviation results are small and do not exceed the 1,5.

Table 18. Descriptive analysis results of content, value creation, form areas of scoring analysis of oil and gas sector.

Element	Descriptives					
Content	Mean	Median	Mode	Stand. Dev.		
Report shows the engagement of the stakeholder	2,67	3,00	3,00	0,52		
Streamlines communication	1,33	1,50	2,00	0,82		

Content	Mean	Median	Mode	Stand. Dev.
The report identifies the risks and opportunities of the business	2,50	2,50	3,00	0,55
Shares and discloses the best practise	1,83	2,00	2,00	0,75
The context is revealed understandable and simple for society	2,17	2,00	2,00	0,75
Company disclose the main stuggles and challenges, which were faced during the year	0,50	0,00	0,00	0,84
Value creation				
Report creating an image of holistic business	0,83	1,00	1,00	0,75
Internal processes are optimized	0,67	0,50	0,00	0,82
Reporting is more efficient	1,17	1,00	1,00	0,75
The report reveal the improvement of reputation	1,50	1,00	1,00	1,38
Demonstrate the long-term value creation	2,83	3,00	4,00	1,17
Form				
Information included all 6 capitals in the report	3,33	3,00	3,00	1,03
The report creates the trust and transperancy	1,83	2,00	2,00	0,75
Shortly described the story of the Company	2,83	3,00	3,00	0,98
Report includes financial ratios	1,17	1,00	1,00	1,17

The overall results of the all four areas are presented on the table 19. Based on the table, the range between minimum and maximum numbers is high in value creation and form areas. This tendency is showing the standard deviation indicator, which fluctuate between 2,64 - 3,58.

	Range	Min	Max	Mean	Median	Mode	Stand. Dev.
Total Content score	0-30	10	13	11,00	10,50	10,00	1,26
Total Assurance and Reliability score	0-3	2	3	2,33	2,00	2,00	0,52
Total Value Creation score	0-25	3	12	7,00	6,50	#N/A	3,58
Total Form score	0-20	5	13	9,17	9,50	10,00	2,64

Table 19. Overall scoring analysis results of oil and gas sector.

Overall, the second hypothesis of the research is verified in oil and gas sector, as scoring analysis shows a high standard deviation between areas and the mean of three areas is lower than a half of the range. The exception is assurance and reliability area, where IR presenting the high quality and presentation level.

4.2.3. Score analysis results of consumer goods sector

Consumer goods sector analysis in Assurance and reliability area presented the similar results to the other two above analyzed sectors (table 20). However, only 2 companies have received the awards for IR, and only 1 company do not presented any information about internal audit in IR.

Table 20. Results of assurance and reliability area of scoring analysis of consumer goods sector.

Assurance and reliability elements	Yes	Yes, %	No	No, %	Total	Total, %
The company has received the acknowledgements and awards for IR	2	33,33	4	66,67	6	100,00
Internal audit	5	83,33	1	83,33	6	100,00
Third-party verification has been carried out	б	100,00	0	0,00	6	100,00

On table 21, there is shown a frequencies of scores between separate elements.Consumer goods sector results are high, especially content area, the only exception is one element from content area – company's disclose the main struggles and challenges during the year. 8 elements received 5 points in scoring, which means that reports are made in high quality and accroding to the IR framework.

Table 21. Frequencies results of content, value creation, form areas of consumer goods sector.

Element				Freque	encies		
Content	0	1	2	3	4	5	Total
Report shows the engagement of the stakeholder	0,00%	0,00%	0,00%	0,00%	66,67%	33,33%	100,00%
Streamlines communication	0,00%	0,00%	16,67%	33,33%	33,33%	16,67%	100,00%
The report identifies the risks and opportunities of the business	0,00%	16,67%	16,67%	33,33%	33,33%	0,00%	100,00%
Shares and discloses the best practise	0,00%	0,00%	16,67%	50,00%	16,67%	16,67%	100,00%
The context is revealed understandable and simple for society	0,00%	0,00%	16,67%	16,67%	16,67%	50,00%	100,00%
Company disclose the main stuggles and challenges, which were faced during the year	33,33%	33,33%	16,67%	16,67%	0,00%	0,00%	100,00%
Value creation							
Report creating an image of holistic business	16,67%	16,67%	16,67%	16,67%	16,67%	16,67%	100,00%
Internal processes are optimized	0,00%	16,67%	16,67%	33,33%	33,33%	0,00%	100,00%
Reporting is more efficient	16,67%	33,33%	0,00%	16,67%	33,33%	0,00%	100,00%
The report reveal the improvement of reputation	16,67%	33,33%	16,67%	33,33%	0,00%	0,00%	100,00%
Demonstrate the long-term value creation	0,00%	0,00%	16,67%	16,67%	33,33%	33,33%	100,00%
Form							
Information included all 6 capitals in the report	0,00%	0,00%	16,67%	16,67%	50,00%	16,67%	100,00%
The report creates the trust and transperancy	0,00%	0,00%	33,33%	33,33%	33,33%	0,00%	100,00%
Shortly described the story of the Company	0,00%	0,00%	0,00%	0,00%	83,33%	16,67%	100,00%
Report includes financial ratios	0,00%	0,00%	50,00%	33,33%	16,67%	0,00%	100,00%

In order to understand the variation between elements in the sector, the descriptive analysis is presented on the table 22. The mean of each element identifies the high scores from the reports, however, there is some elements, which are close to the poor quality – disclosure about struggles and

challenges during the year and the report presentation the improvement of reputation. The is no repetitive scores in element - report creating an image of holistic business, therefore this part is marked as not applicable. The standard deviation do not exceed more than 2, however the majority of elements standard deviation fluctuates between 1-2.

Element	Descriptives						
Content	Mean	Median	Mode	Stand. Dev.			
Report shows the engagement of the stakeholder	4,33	4,00	4,00	0,52			
Streamlines communication	3,50	3,50	3,00	1,05			
The report identifies the risks and opportunities of the business	2,83	3,00	3,00	1,17			
Shares and discloses the best practise	3,33	3,00	3,00	1,03			
The context is revealed understandable and simple for society	4,00	4,50	5,00	1,26			
Company disclose the main stuggles and challenges, which were faced during the year	1,17	1,00	0,00	1,17			
Value creation							
Report creating an image of holistic business	2,50	2,50	#N/A	1,87			
Internal processes are optimized	2,83	3,00	3,00	1,17			
Reporting is more efficient	2,17	2,00	4,00	1,72			
The report reveal the improvement of reputation	1,67	1,50	3,00	1,21			
Demonstrate the long-term value creation	3,83	4,00	4,00	1,17			
Form							
Information included all 6 capitals in the report	3,67	4,00	4,00	1,03			
The report creates the trust and transperancy	3,00	3,00	4,00	0,89			
Shortly described the story of the Company	4,17	4,00	4,00	0,41			
Report includes financial ratios	2,67	2,50	2,00	0,82			

Table 22. Descriptive analysis results of content, value creation, form areas of scoring analysis of consumer goods sector.

The overall result of all four areas are presented on the table 23. None of all four elements have collected the maximum amount of the scores. The mean of all four elements have exceeded the medium score amount. Based on the mode results, the most common score where 18 in content area, 3 in assurance and reliability area, 17 in value creation area and 13 in form area. The highest standard deviation is in value creation area, where it exceeds the 5.

Table 23. Overal	1 scoring ana	alvsis results	of consumer	goods sector.
				8

	Range	Min	Max	Mean	Median	Mode	Stand. Dev.
Total Content score	0-30	14	25	19,17	18,50	18,00	3,66
Total Assurance and Reliability score	0-3	2	3	2,50	2,50	3,00	0,55
Total Value Creation score	0-25	7	18	13,00	14,50	17,00	5,10
Total Form score	0-20	10	18	13,50	13,00	13,00	2,74

To sum up, the consumer goods sector high quality of IR have verified the second hypothesis. This means, that consumer goods sector companies have issued IR based on the IR framework and have kept the high quality. The highest scores from this sector have collected the form area.

4.2.4. Score analysis results of financial services sector

On the table 24 presented the result of assurance and reliability area of financial services sector. Only two companies – HSBC and ING have been awarded for IR (especially for sustainability part disclosure). All selected companies provided an information about the internal audit procedures, however one company – Swedish Export Credit Corporation, did not provide any information about thirs-party verification.

Assurance and reliability elements	Yes	Yes, %	No	No, %	Total	Total, %
The company has received the acknowledgements and awards for IR	2	33,33	4	66,67	6	100,00
Internal audit	6	100,00	0	0,00	6	100,00
Third-party verification has been carried out	5	83,33	1	16,67	6	100,00

Table 24. Results of assurance and reliability area of scoring analysis of financial services sector.

The content, value creation and form areas score analysis results have been provided on the table 25. The selected companies from financial services sector demonstrate the high quality of IR, the only element, which presents the poor quality or not applicable is disclosure about company's struggles, challenges during the last year.

Element		Frequencies						
Content	0	1	2	3	4	5	Total	
Report shows the engagement of the stakeholder	0,00%	0,00%	0,00%	0,00%	50,00%	50,00%	0,00%	
Streamlines communication	0,00%	0,00%	16,67%	16,67%	66,67%	0,00%	0,00%	
The report identifies the risks and opportunities of the business	0,00%	0,00%	0,00%	33,33%	33,33%	33,33%	0,00%	
Shares and discloses the best practise	0,00%	0,00%	16,67%	83,33%	0,00%	0,00%	0,00%	
The context is revealed understandable and simple for society	0,00%	0,00%	0,00%	66,67%	33,33%	0,00%	0,00%	
Company disclose the main stuggles and challenges, which were faced during the year	50,00%	50,00%	0,00%	0,00%	0,00%	0,00%	50,00%	
Value creation								
Report creating an image of holistic business	0,00%	0,00%	0,00%	16,67%	33,33%	50,00%	0,00%	
Internal processes are optimized	0,00%	0,00%	16,67%	33,33%	50,00%	0,00%	0,00%	
Reporting is more efficient	0,00%	0,00%	16,67%	33,33%	50,00%	0,00%	0,00%	
The report reveal the improvement of reputation	0,00%	0,00%	16,67%	50,00%	16,67%	16,67%	0,00%	
Demonstrate the long-term value creation	0,00%	0,00%	0,00%	0,00%	33,33%	66,67%	0,00%	
Form								
Information included all 6 capitals in the report	0,00%	0,00%	16,67%	50,00%	33,33%	0,00%	0,00%	

Table 25. Frequencies results of content, value creation, form areas of financial services sector.

Form	0	1	2	3	4	5	Total
The report creates the trust and transperancy	0,00%	0,00%	0,00%	0,00%	100,00%	0,00%	0,00%
Shortly described the story of the Company	0,00%	0,00%	0,00%	16,67%	50,00%	33,33%	0,00%
Report includes financial ratios	0,00%	0,00%	33,33%	66,67%	0,00%	0,00%	0,00%

Descriptive analysis presents the results of mean, median, mode and standard deviation of three areas. The highest mean (4,50) has element – report shows the engagement of the stakeholder, while the lowest (0,50) belongs to the disclosure of the main struggles and challanges during the year.

Table 26. Descriptive analysis results of content, value creation, form areas of scoring analysis of financial services sector.

Element		Desc	riptives	
Content	Mean	Median	Mode	Stand. Dev.
Report shows the engagement of the stakeholder	4,50	4,50	4,00	0,55
Streamlines communication	3,50	4,00	4,00	0,84
The report identifies the risks and opportunities of the business	4,00	4,00	4,00	0,89
Shares and discloses the best practise	2,83	3,00	3,00	0,41
The context is revealed understandable and simple for society	3,33	3,00	3,00	0,52
Company disclose the main stuggles and challenges, which were faced during the year	0,50	0,50	0,00	0,55
Value creation				
Report creating an image of holistic business	4,33	4,50	5,00	0,82
Internal processes are optimized	3,33	3,50	4,00	0,82
Reporting is more efficient	3,33	3,50	4,00	0,82
The report reveal the improvement of reputation	3,33	3,00	3,00	1,03
Demonstrate the long-term value creation	4,67	5,00	5,00	0,52
Form				
Information included all 6 capitals in the report	3,17	3,00	3,00	0,75
The report creates the trust and transperancy	4,00	4,00	4,00	0,00
Shortly described the story of the Company	4,17	4,00	4,00	0,75
Report includes financial ratios	2,67	3,00	3,00	0,52

The overall scoring analysis of the financial services sector presents the summary of all four areas, which were analyzed in the IR. The value creation area's mean is the highest from the all analyzed sectors (19,00), while others areas means are similar to consumer goods sector results. The highest standard deviation belongs to the value creation area and exceeds 3, while the lowest deviation belongs to the assurance and reliability area.

 Table 27. Overall scoring analysis results of financial services sector.

	Range	Min	Max	Mean	Median	Mode	Stand. Dev.
Total Content score	0-30	15	22	18,67	18,00	18,00	2,50
Total Assurance and Reliability score	0-3	1	3	2,17	2,00	2,00	0,75
Total Value Creation score	0-25	15	23	19,00	19,00	#N/A	3,22
Total Form score	0-20	13	15	14,00	14,00	13,00	1,10

The final result of the financial sector analysis shows that the total sector-specific implementation in IR is high and this lead to the second hypothesis verification. This means that sector shows not only high quality in IR implementation, but the information is presented based on the IR framework.

4.2.5. Score analysis results of the whole sample in 2017

Table 28 presents the result of whole 24 companies on assurance and reliability area in 2017. Overall, the first element – awards acknowledgements for IR, between companies divided almost equally, while with other two elements (internal audit and third-parties audit) dominates postive answer, which means that almost all companies from the sample disclose the information about internal audit or third-party verification.

Assurance and reliability elements	Yes	Yes, %	No	No, %	Total	Total, %
The company has received the acknowledgements and awards for IR	13	54,17	11	45,83	24	100,00
Internal audit	20	83,33	4	16,67	24	100,00
Third-party verification has been carried out	22	91,67	2	8,33	24	100,00

Table 28. Results of assurance and reliability a	area of scoring analysis of whole sample of 2017.
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The summary of all 24 companies frequency is presented on the table 29. The frequencies shows the distribution between element and the received scores from companies IR. There is no any element, which will be scored by one mark for all companies, this leads to the result that the quality of general implementation is not very understandable without descriptive analysis.

Element		Frequencies								
Content	0	1	2	3	4	5	Total			
Report shows the engagement of the stakeholder	0,00%	0,00%	16,67%	29,17%	33,33%	20,83%	100,00%			
Streamlines communication	4,17%	8,33%	20,83%	25,00%	37,50%	4,17%	100,00%			
The report identifies the risks and opportunities of the business	0,00%	4,17%	16,67%	33,33%	29,17%	16,67%	100,00%			
Shares and discloses the best practise	0,00%	8,33%	29,17%	50,00%	8,33%	4,17%	100,00%			
The context is revealed understandable and simple for society	0,00%	4,17%	16,67%	45,83%	20,83%	12,50%	100,00%			
Company disclose the main stuggles and challenges, which were faced during the year	54,17%	29,17%	12,50%	4,17%	0,00%	0,00%	100,00%			
Value creation										
Report creating an image of holistic business	12,50%	16,67%	12,50%	16,67%	20,83%	20,83%	100,00%			
Internal processes are optimized	12,50%	12,50%	12,50%	33,33%	29,17%	0,00%	100,00%			
Reporting is more efficient	8,33%	25,00%	16,67%	25,00%	20,83%	4,17%	100,00%			
The report reveal the improvement of reputation	8,33%	20,83%	12,50%	20,83%	33,33%	4,17%	100,00%			

Table 29. Frequencies results of content, value creation, form areas of all 24 companies sample.

Value creation	0	1	2	3	4	5	Total
Demonstrate the long-term value creation	0,00%	8,33%	8,33%	12,50%	29,17%	41,67%	100,00%
Form							
Information included all 6 capitals in the report	0,00%	0,00%	12,50%	37,50%	33,33%	16,67%	100,00%
The report creates the trust and transperancy	0,00%	8,33%	20,83%	29,17%	41,67%	0,00%	100,00%
Shortly described the story of the Company	0,00%	4,17%	0,00%	20,83%	41,67%	33,33%	100,00%
Report includes financial ratios	16,67%	8,33%	37,50%	33,33%	4,17%	0,00%	100,00%

The results of the frequencies was systemized using descriptive analysis (table 30). Even 6 elements from 15, exceeded the score -4, which means that in these areas companies prepares reports in high quality and use IR framework as a guidline. Standard deviation do not exceed 1,5, which means that the scores of the companies are similar to mean and there might be a tendency to keep certain level of each element.

Table 30. Descriptive analysis results of content, value creation, form areas of scoring analysis of the whole sample.

Element	Descriptives						
Content	Mean	Median	Mode	Stand. Dev.			
Report shows the engagement of the stakeholder	4,50	4,50	4,00	0,55			
Streamlines communication	3,50	4,00	4,00	0,84			
The report identifies the risks and opportunities of the business	4,00	4,00	4,00	0,89			
Shares and discloses the best practise	2,83	3,00	3,00	0,41			
The context is revealed understandable and simple for society	3,33	3,00	3,00	0,52			
Company disclose the main stuggles and challenges, which were faced during the year	0,50	0,50	0,00	0,55			
Value creation							
Report creating an image of holistic business	4,33	4,50	5,00	0,82			
Internal processes are optimized	3,33	3,50	4,00	0,82			
Reporting is more efficient	3,33	3,50	4,00	0,82			
The report reveal the improvement of reputation	3,33	3,00	3,00	1,03			
Demonstrate the long-term value creation	4,67	5,00	5,00	0,52			
Form							
Information included all 6 capitals in the report	3,17	3,00	3,00	0,75			
The report creates the trust and transperancy	4,00	4,00	4,00	0,00			
Shortly described the story of the Company	4,17	4,00	4,00	0,75			
Report includes financial ratios	2,67	3,00	3,00	0,52			

The overall sample result is presented on table 31. According to it, The content area and value creation area are deviated the most and it might exceed even 6, while assurance and reliability area do not have such high deviation due to the smaller range of scores. All four areas have the most common collected amount of scores: content area – 18, assurance and reliability area – 2, value creation area – 17 and form area – 13.

	Range	Min	Max	Mean	Median	Mode	Stand. Dev.
Total Content score	0-30	10	25	16,50	17,50	18,00	4,09
Total Assurance and Reliability score	0-3	0	3	2,29	2,00	2,00	0,75
Total Value Creation score	0-25	3	23	14,21	16,00	17,00	5,93
Total Form score	0-20	5	18	12,58	13,00	13,00	2,93

Table 31. Overall scoring analysis results of sample of 2017 IR.

Overall, the final sample analyses of 24 integrated reports, shows the medium general implementation of IR and verifies the first hypothesis. In order to determine, if this general implementation level appeared only in 2017 reports or even earlier, the second part of the research will present the results of the whole sample in different years.

4.2.6. Score analysis results of the whole sample

The score analysis results on the whole sample – 72 reports are presented separately by different area. Therefore, table 32 presents the results of content area. According to the table, 4 elements from the content area have a tendency to growth from 2015 until 2016. However, two elements decreased by 1 score in 2016, it means that some of the companies decided to disclose less information or did it with worse quality than previous years. From 2016 until 2017 almost all elements have a tendency to growth, except the streamlines communication element. The highest growth during the 2017 shows the element – disclose of the best practise, which increased by 13,33 percentage.

Content	2015	2015 %	2016	2016 %	2017	2017 %	2016- 2015	2016- 2015 %	2017- 2016	2017- 2016 %
Report shows the engagement of the stakeholder	10	33,33	12	40,00	14	46,67	+2	+6,67	+2	+6,67
Streamlines communication	10	33,33	12	40,00	12	40,00	+2	+6,67	0	0,00
The report identifies the risks and opportunities of the business	10	33,33	11	36,67	14	46,67	+1	+3,33	+3	+10,00
Shares and discloses the best practise	8	26,67	7	23,33	11	36,67	-1	-3,33	+4	+13,33
The context is revealed understandable and simple for society	10	33,33	12	40,00	13	43,33	+2	+6,67	+1	+3,33

Table 32. Scoring results of the content area based on the IR year.

Content	2015	2015 %	2016	2016 %	2017	2017 %	2016- 2015	2016- 2015 %	2017- 2016	2017- 2016 %
Company										
disclose the										
main stuggles										
and challenges,	3	10,00	2	6,67	3	10,00	-1	-3,33	+1	+3,33
which were										
faced during										
the year										

There is no significant growth or decrease in the assurance and reliability area. There was no changes between 2015 and 2016 and between 2016 and 2017 only one element increased by 1 score (table 33).

Assurance and reliability	2015	2015 %	2016	2016 %	2017	2017 %	2016- 2015	2016- 2015 %	2017- 2016	2017- 2016 %
The company has received the acknowledgements and awards for IR	1	33,33	1	33,33	2	66,67	0	0	+1	+33,33
Internal audit	3	100,00	3	100,00	3	100	0	0	0	0
Third-party verification has been carried out	3	100,00	3	100,00	3	100	0	0	0	0

Table 33. Scoring results of the assurance and reliability area based on the IR year.

Table 34 shows the changes between value creation elements over the years. Demonstration of long-term value creation element have increased by 12 % between 2015 and 2016, while other elements have a tendency to maintain the current level. However, the same element (demonstrate the long-term value creation) have a tendency to growth next years, but this time the growth was only 8 %.

Value creation	2015	2015 %	2016	2016 %	2017	2017 %	2016- 2015	2016- 2015 %	2017- 2016	2017- 2016 %
Report creating an image of holistic business	10	40,00	10	40,00	11	44,00	0	0,00	+1	+4,00
Internal processes are optimized	10	40,00	10	40,00	10	40,00	0	0,00	0	0,00
Reporting is more efficient	8	32,00	9	36,00	10	40,00	+1	+4,00	+1	+4,00
The report reveal the improvement of reputation	10	40,00	10	40,00	11	44,00	0	0,00	+1	+4,00
Demonstrate the long-term value creation	11	44,00	14	56,00	16	64,00	+3	+12,00	+2	+8,00

Table 34. Scoring results of the value creation area based on the IR year.

Finally, the last area of the scoring analysis – form, have a tendency to growth in 2016 and 2017 (table 35). The highest growth in 2016 belongs to the first element, which grew by 15 %, second element grew by 10 %, the third – 5 % and the last one maintain the same level. However, there were different tendency in growth in 2017: first and seconf element grew by 5 %, while second and third one by 15%.

Form	2015	2015 %	2016	2016 %	2017	2017 %	2016- 2015	2016- 2015 %	2017- 2016	2017- 2016 %
Information included all 6 capitals in the report	10	50,00	13	65,00	14	70,00	+3	+15,00	+1	+5,00
The report creates the trust and transperancy	9	45,00	11	55,00	12	60,00	+2	+10,00	+1	+5,00
Shortly described the story of the Company	12	60,00	13	65,00	16	80,00	+1	+5,00	+3	+15,00
Report includes financial ratios	5	25,00	5	25,00	8	40,00	0	0,00	+3	+15,00

Table 35. Scoring results of the form area based on the IR year.

Overall scoring analysis of 72 reports between the 2015-2017 verify the first hypothesis, that current 2017 general implementation quality is medium and showed, how the quality grew during the past 3 years. All four areas have a tendency to growth during the last years, half of them the growth were minor, while others managed to growth by 15-30%. The second hyphotesis was verified only partially, as financial services and consumer goods IR sector-specific implementation is high, while energy and utilities IR sector-specific implementation is medium, oil and gas - low.

Conclusions

- 1. The theoretical review of IR opportunities disclose that benefits of IR might be dividable into 3 parts by risk: internal, external and managing regulatory risk, or into 4 groups by framework: greater clarify, better decisions, deeper engagement and lower reputation. The framework might push a company towards more integrated risk management processes. However, one of the main challenges of IR is still outstanding audit, due to the lack of legislation in the field of social audit and its effect on the level of uniformity of social audit.
- 2. The theoretical review of IR value creation presented two groups, for which IR creates value: the organization itself and others (stakeholders, society, etc.) The value creation for others might not come only from company activities, but also from relationship and interactions and it cannot be created through the maximization of one capital, as usually it is created over different time horizons and for different stakeholders through different capitals. Therefore, IR creates a higher value than other reports, due to disclosure of a bigger framework of company and reports might be presented to a large extent of audience, as they are filled understandably and seeks streamlines communication.
- 3. Based on the theoretical review of the literature, IR should follow the 8 principles: strategic focus and future orientation; connectivity of information, stakeholder relationships, materiality, conciseness, reliability and completeness, consistency and comparability, and disclose information about 6 capitals: financial, manufactured, human, intellectual, natural and social. Therefore, many researchers agree that the content elements of IR are 8 and companies should follow: organization's internal and external environment, management, business model, threats and opportunities, strategy and resources allocation, efficiency, perspective, preparation of the report. All these guidelines and principles based on literature review, might be different disclose, based on the sector. This means, that energy and utilities, oil and gas sectors might disclose more information about nature capital, while financial service sector will broadly disclose information about intellectual, relationship and human capitals.
- 4. For data collection, the study responded to key issues by identifying that general implementation of IR is a medium, while financial services and consumer goods sectors show a high sector-specific implementation, while energy and utilities, oil and gas sectors show a low sector-specific implementation. It was determined to choose 18 attributes, which will let to investigate the implementation and those attributes was grouped in four criteria by the purpose: content, assurance and reliability, value creation, form. The sample of the research was determined 72 reports, from 4 different sectors (energy and utilities, oil and gas, financial services, consumer goods), from 6 companies in each sector (total 24), for three years (2017-2015).
- 5. Correlation analysis of the research presented the relationships between 6 criteria: number of employees in the company, revenues, EBITDA, Net debt, the number of KPI in financial capital and number of pages of IR. The strongest relationship was direct and it was between net debt and EBITDA, two also strong direct relationship were between number of employees and EBITDA and number of employees and net debt. The score analysis results verify the first hypothesis about medium level of general implementation of IR in the sample, while second hypothesis was verified only partially, because energy and utilities sector-specific implementation is in medium level instead of low. Based on the research, the general implementation of IR in the sample tends to growth during 2015 2017, however oil and gas sector-specific implementation is still low.

Recommendations. Based on the research results, several recommendations for companies were prepared:

- 1. The general implementation of IR might be increased by providing more information about recent years challenges and struggles in reports, as well as include more financial information, which will be expressed by financial ratios, not only the full financial statements.
- 2. Companies might disclose the most important capitals more in IR, however, it should not forgive, that in order to fit to guidlines, all 6 capitals should be presented, not only sector-specific ones.
- 3. Companies should seek to provide the information about internal, external audits in all IR reports and additionally to present the information about acknowledgements and awards for IR in order to increase the Assurance and reliability area in reports.

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List of information sources

No.	Company name	IR year	Information source
1	ENGIE	2017	https://www.engie.com/wp- content/uploads/2017/05/2017_integratedreport.pdf
2	ENGIE	2016	https://www.engie.ro/corporate/wp- content/uploads/2016/08/POD_ENGIE_rapportintegre2016_EN_rev 01_bd.pdf
3	ENGIE	2015	https://www.unglobalcompact.org/system/attachments/cop_2015/18 8421/original/POD_ENGIE_RAPPORT-INTEGRE- 2015_EN_REV01_bd.pdf?1442241148
4	enBW	2017	https://www.enbw.com/enbw_com/downloadcenter/annual- reports/enbw-integrated-annual-report-2017.pdf
5	enBW	2016	https://www.enbw.com/enbw_com/downloadcenter/annual- reports/enbw-integrated-annual-report-2016.pdf
6	enBW	2015	https://www.enbw.com/enbw_com/downloadcenter/annual- reports/enbw-report-full-year-2015.pdf
7	Enel	2017	https://www.enel.com/content/dam/enel- com/governance_pdf/reports/annual-financial-report/2017/annual- report-2017.pdf
8	Enel	2016	https://www.enel.com/content/dam/enel- com/governance_pdf/reports/annual-financial- report/2016/Annual_Report_2016.pdf
9	Enel	2015	https://www.enel.com/content/dam/enel- com/home/Annual_Report_2015.pdf
10	United Utilities	2017	https://www.unitedutilities.com/globalassets/z_corporate- site/investor-pdfs/annual-reports/united-utilities-ar2017-web- ready.pdf
11	United Utilities	2016	https://www.unitedutilities.com/globalassets/z_corporate- site/investor-pdfs/annual-reports/united-utilities-annual-report- 2016.pdf
12	United Utilities	2015	https://www.unitedutilities.com/globalassets/z_corporate- site/investor-pdfs/annual-reports/united-utilities-annual-report-2015- acc17.pdf
13	Entergy Corporation	2017	http://integratedreport.entergy.com/interactive/
14	Entergy Corporation	2016	http://fliphtml5.com/tqxd/mgic/basic
15	Entergy Corporation	2015	http://integratedreport.entergy.com/2015/company/mission.php
16	National Grid	2017	https://investors.nationalgrid.com/~/media/Files/N/National-Grid-IR-V2/reports/2017-18/annual-report-and-accounts.pdf
17	National Grid	2016	https://investors.nationalgrid.com/~/media/Files/N/National-Grid-IR-V2/reports/2016-17/ara-2016-17-plc-06-06-2017.pdf

18	National Grid	2015	https://investors.nationalgrid.com/~/media/Files/N/National-Grid-IR-V2/reports/2015-16/national-grid-plc-annual-report-and-accounts-2015-16.pdf
19	The Clorox Company	2017	https://s21.q4cdn.com/507168367/files/doc_financials/annuals/2017/CLX-2017-IAR-Final.pdf
20	The Clorox Company	2016	https://s21.q4cdn.com/507168367/files/doc_financials/annuals/2016/ CLX-2016-Integrated-Report_Final-for-Web.pdf
21	The Clorox Company	2015	http://www.annualreports.com/HostedData/AnnualReportArchive/t/ NYSE_CLX_2015.pdf
22	Coca-Cola	2017	https://coca-colahellenic.com/media/3046/coc122_cch-iar-2017_final-web-ready-pdf_180315.pdf
23	Coca-Cola	2016	https://coca- colahellenic.com/media/2736/cchbc_integrated_annual_report_2016 .pdf
24	Coca-Cola	2015	https://coca-colahellenic.com/media/2390/coca-cola-hbc_2015- integrated-annual-report.pdf
25	Danone	2017	https://www.danone.com/content/dam/danone-corp/about-us- impact/publications/en/2018/Danone-RA2017-EN-PDF-e- accessible_03.pdf
26	Danone	2016	https://www.danone.com/content/dam/danone-corp/investors/en-all- publications/2016/integratedreports/Danone-Integrated-Report- Summary-2016.pdf
27	Danone	2015	https://www.danone.com/content/dam/danone-corp/investors/en-all- publications/2015/integratedreports/DANONE- economic_and_social_reports.pdf
28	Diageo	2017	https://www.diageo.com/pr1346/aws/media/3960/diageo-2017- annual-report.pdf
29	Diageo	2016	https://www.diageo.com/pr1346/aws/media/1199/diageo_annual_report_2016_interactive_7pdf
30	Diageo	2015	https://www.diageo.com/pr1346/aws/media/1429/diageo_interactive _ar2015.pdf
31	Go-Ahead	2017	file:///C:/Users/guoda.norutaviciute/Downloads/GO129_AnnualRep ort_Final_170919.pdf
32	Go-Ahead	2016	file:///C:/Users/guoda.norutaviciute/Downloads/Go-Ahead_AR2016.pdf
33	Go-Ahead	2015	file:///C:/Users/guoda.norutaviciute/Downloads/Annual%20report% 202015%20-%202.pdf
34	Marks & Spencer	2017	https://corporate.marksandspencer.com/documents/reports-results- and-publications/annual-report-2017.pdf
35	Marks & Spencer	2016	http://www.annualreports.com/HostedData/AnnualReportArchive/m /OTC_MAKSF_2016.pdf

36	Marks & Spencer	2015	http://annualreport2015.marksandspencer.com/M&S_AR2015_Full %20report.pdf
37	BP	2017	https://www.bp.com/content/dam/bp/business- sites/en/global/corporate/pdfs/investors/bp-annual-report-and-form- 20f-2017.pdf
38	BP	2016	https://www.bp.com/content/dam/bp-country/de_ch/PDF/bp-annual-report-and-form-20f-2016.pdf
39	BP	2015	https://www.bp.com/content/dam/bp/business- sites/en/global/corporate/pdfs/investors/bp-annual-report-and-form- 20f-2015.pdf
40	Cairn Energy	2017	https://www.cairnenergy.com/media/2285/crnp-27828-annual- report-2017-web-pdf.pdf
41	Cairn Energy	2016	https://www.cairnenergy.com/media/1139/annual_report_2016_web _spreads.pdf
42	Cairn Energy	2015	http://www.annualreports.com/HostedData/AnnualReportArchive/c/ LSE_CNE_2015.pdf
43	Woodside Petroleum Ltd	2017	https://woodsideannouncements.app.woodside/14.02.2018+Annual+ Report+2017.pdf
44	Woodside Petroleum Ltd	2016	http://www.annualreports.com/HostedData/AnnualReportArchive/W/ASX_WPL_2016.pdf
45	Woodside Petroleum Ltd	2015	http://www.annualreports.com/HostedData/AnnualReportArchive/W/ASX_WPL_2015.PDF
46	Rosneft	2017	https://www.rosneft.com/upload/site2/document_file/a_report_2017 _eng.pdf
47	Rosneft	2016	https://www.rosneft.com/upload/site2/document_file/a_report_2016 _eng.pdf
48	Rosneft	2015	https://www.rosneft.com/upload/site2/document_file/a_report_2015 _eng1.pdf
49	Tullow Oil	2017	https://www.tullowoil.com/Media/docs/default- source/3_investors/tullow-oil-plc-2017-annual-report.pdf?sfvrsn=2
50	Tullow Oil	2016	https://www.tullowoil.com/Media/docs/default-source/2016-Annual-Report-Accounts/2016-Annual-Report-Accounts.pdf?sfvrsn=18
51	Tullow Oil	2015	https://www.tullowoil.com/Media/docs/default- source/3_investors/2015-annual-report/tullow-oil-2015-annual- report-and-accounts.pdf
52	Sasol	2017	https://www.sasol.com/sites/sasol/files/content/files/Integrated%20R eport%2C%2030%20June%202017.pdf
53	Sasol	2016	https://www.sasol.com/sites/default/files/financial_reports/Annual% 20Integrated%20Report%202016_1.pdf
54	Sasol	2015	https://www.sasol.com/sites/default/files/financial_reports/Sasol_AI R_2015_%28Web2%29_1.pdf

55	bankmecu	2017	https://bankaust.com.au/globalassets/about-us/customer-centre/corp-report/2017/corporate-report-2017.pdf
56	bankmecu	2016	https://bankaust.com.au/globalassets/bau156-corporate-report- hyperlinked-fa2.pdf
57	bankmecu	2015	https://bankaust.com.au/globalassets/about-us/reports/corporate-reports/full-corporate-report-2015-pdf.pdf
58	Vancity	2017	https://annualreport.vancity.com/_doc/2017_Vancity_AR%20PDF_ LINKS.pdf
59	Vancity	2016	https://www.vancity.com/SharedContent/documents/AnnualReportArchives/Vancity_AR2016.pdf
60	Vancity	2015	https://www.vancity.com/SharedContent/documents/AnnualReportArchives/Vancity_AR2015.pdf
61	DBS	2017	https://www.dbs.com/annualreports/2017/pdfs/DBS-AR17-full.pdf
62	DBS	2016	https://www.dbs.com/annualreports/2016/english/pdf/01_DBS%20A nnual%20Report%202016-Full.pdf
63	DBS	2015	https://www.dbs.com/annualreports/2015/pdfs/dbs-annual-report-2015.pdf
64	HSBC	2017	file:///C:/Users/guoda.norutaviciute/Downloads/180220-annual-report-and-accounts-2017.pdf
65	HSBC	2016	file:///C:/Users/guoda.norutaviciute/Downloads/170221-annual-report-and-accounts-2016.pdf
66	HSBC	2015	file:///C:/Users/guoda.norutaviciute/Downloads/hsbc-holdings-plc- annual-report-and-accounts-2015%20(1).pdf
67	ING	2017	file:///C:/Users/guoda.norutaviciute/Downloads/2017- Annual%20Report%20Groep%20N.Vpdf
68	ING	2016	file:///C:/Users/guoda.norutaviciute/Downloads/2016%20Annual%2 0Report%20ING%20Groep%20N.Vpdf
69	ING	2015	file:///C:/Users/guoda.norutaviciute/Downloads/ING%20Bank%20A nnual%20Report%202015.pdf
70	Swedish Export Credit Corporation	2017	https://www.sek.se/en/wp-content/uploads/sites/2/2018/04/Annual-Report-2017-20180426.pdf
71	Swedish Export Credit Corporation	2016	https://www.sek.se/en/wp- content/uploads/sites/2/2014/02/SEK_annual_report_2016.pdf
72	Swedish Export Credit Corporation	2015	https://www.sek.se/en/wp- content/uploads/sites/2/2016/03/SEK_AR_2015_EN.pdf