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MATERIALITY ASSESSMENT IN SUSTAINABILITY REPORTING OF THE
UKRAINIAN BANKS IN 2019-2023

Bachelor Thesis

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I have written this Bachelor Thesis independently. Any ideas or data taken from other authors or other sources have been fully referenced.

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Introduction

Companies today have a significant impact on the environment, society, and various aspects of our lives. Their business practices can influence our daily experiences both directly and indirectly, making it essential for them to implement transparent and responsible practices (Serafeim, 2013). Adopting sustainable reporting can benefit companies thanks to people who prefer to purchase products and invest in those businesses with a good reputation not only as a brand but also in environmental, social, and governmental (ESG) terms (Bar Am et al., 2023; Okafor et al., 2021; Shamsuzzoha & Fontell, 2024). However, a company must understand which sustainability topics are important for its sector and stakeholders. Firms that are more successful in terms of identifying important topics in sustainability reporting outperform those that lag in these metrics and have comparatively higher shareholder value (Grewal et al., 2021; Khan et al., 2016). Although Khan et al. (2016) argue that reporting on non-material (unimportant) topics will not bring any harm or benefit to the company, identifying material (important) topics will still be useful. Therefore, businesses should evaluate what issues are material for a specific sector in which they operate.

At the legislative level, sustainability reporting in Ukraine is in the development stage. Ukraine is gradually moving toward alignment with EU directives, but there are no specific requirements for sustainability reporting. The law of Ukraine “On Accounting and Financial Reporting in Ukraine” (No. 996-XIV) obligates public interest entities (PIEs) to include certain non-financial information in their management reports. It aligns with Directive 2013/34/EU on the annual financial statements, consolidated financial statements, and related reports of certain types of undertakings. However, it does not fully implement the detailed ESG disclosure obligations specified in Directive 2014/95/EU, Non-Financial Reporting Directive, which expands 2013/34/EU. (Ministry of Finance of Ukraine, 2017)

On the other hand, the National Bank of Ukraine states that “Directive 2022/2464/EU needs to be implemented in Ukrainian legislation”. But otherwise, there are currently no requirements that regulate sustainability reporting in Ukraine. (Національний банк України, 2024)

Sustainability reporting starts with identifying material topics (GRI 1, 2021). Initially, materiality was considered only from a financial perspective. Thus, the term refers to the point at which information becomes meaningful to investors and stakeholders and can influence their financial decisions or change the overall composition of the information available. However, over time, the concept has also permeated into non-financial sustainability reporting (PGS, 2013; Jones et al., 2016; Mio et al., 2020; Moroney &

Trotman, 2016). In the context of sustainable reporting, materiality determines the most important ESG topics to the business and its stakeholders (KPMG, 2014).

Although the topic of materiality is still evolving and leaves many questions, various studies have already been conducted. Eccles et al. (2012), one of the first authors to discuss the need for sector-specific materiality assessment, suggested that industry-specific standards would improve the quality and comparability of sustainability reporting. Jones et al. (2016a) proved that even while using the very same guidelines, companies implemented them differently. In their other paper, Jones et al. (2016b) also found that materiality assessment differs within even one sector. Various studies dedicated to materiality assessment were conducted on a sector-specific basis. For example, Font et al. (2016) investigated important topics in sustainability reporting of the cruise industry. Similar research was conducted for the EU textile companies by Schoffa (2023) and for the EU forest companies by Mahmoud (2024).

Using a sample of Ukrainian banks, Vasileva and Lasukova (2013) proved that CSR activities positively impact banking business efficiency. Kostyuk et al. (2013) attempted to create a methodology to measure the corporate social responsibility (CSR) performance of Ukrainian banks. They also found that Ukrainian banks were already at the development stage regarding CSR in 2010, though, of course, scoring lower than their counterparts in Sweden. Despite some previous studies on materiality assessment, research on sector-specific material topics in the Ukrainian banking sector remains undiscussed.

Ukrainian banks operate within a unique set of challenges currently specific only to this area in the region, distinguishing them from their peers in neighbouring economies. The lack of studies on the particular conditions and needs of the Ukrainian banking sector spotlights a research gap, although the environment in which they operate may clearly show how the reassessment of material topics happens in response to changes, making it potentially useful research. This gap underlines the need for research that explores how Ukrainian banks identify material topics that reflect local stakeholders' concerns and expectations after two significant points in the history of Ukraine: after the COVID-19 pandemic and the full-scale invasion.

The events of recent years have made adjustments not only to economic conditions but also to the lives of ordinary people in Ukraine. The ongoing war has further highlighted the need for banks to adapt their sustainability reporting to address their stakeholders' arising concerns and priorities. As the situation changes, so do the material issues that matter most to these groups. Therefore, this research aims to uncover what topics Ukrainian banks consider

the most important (material) to report in their sustainability documents for the period of 2019 - 2023 years. To achieve the aim, the following tasks have been set:

- To define materiality in sustainability reporting by conducting a literature review;
- To provide an overview of previous empirical studies about materiality assessment;
- To present and analyze sector-specific and global approaches for materiality assessment, focusing on standards and frameworks for banks;
- To collect and analyze sustainability reports of the banks in Ukraine for the period of 2019 - 2023;
- To interpret the results and identify material topics in the sustainability reports of Ukrainian banks.

The methodology consists of content analysis and automated text analytics (corpus analysis). In a sample of 20 Ukrainian banks' reports for five years, specific keywords are identified using manual coding. General keywords are applied as well. Analysis of ESG topics is performed by AntConc, a tool for conducting corpus linguistics research, which introduces corpus methods and enables data-driven language learning.

The research can be useful for multiple stakeholders. First, the study can help Ukrainian and foreign banks prioritize material issues and implement ESG reporting. Investors could benefit from the data on material sustainability topics – better risk assessment. Investors and policymakers could gain insights into how to enhance ESG reporting frameworks. Lastly, the thesis contributes to the academic field and can serve as a ground for further research.

This thesis consists of two parts: theoretical and empirical. In the first chapter, the author discusses the definition of the materiality concept, global and sector-specific guidelines and frameworks for materiality assessment, as well as previous empirical studies of the topic. The second chapter includes an overview of the banking sector in Ukraine, the methodology used for empirical research, and a discussion of the results. In the end, conclusions are provided.

Keywords: sustainability reporting, corporate social responsibility, materiality assessment, bank(s), Ukraine

1. The concept of materiality and its theoretical background

1.1. Defining materiality for sustainability reporting

Corporate social responsibility (CSR) as a phenomenon started its development in the 1950s, beginning as a concept that aims to bring long-term benefits to shareholders by implementing ethical practices and societal contributions. These actions could be positively reflected in profits, as they improved the image of a company. Over time, stakeholders' interests become included into consideration and understanding that businesses operate within a broader social and environmental context becomes more evident. With the increase of globalization, CSR becomes even more important, affecting both sustainability and stakeholders. (Rodriguez-Gomez et al., 2020)

Many studies prove that sustainable practices benefit companies (Bar Am et al., 2023; Grewal et al., 2021; Okafor et al., 2021; Shamsuzzoha & Fontell, 2024). For instance, Bar Am et al. (2023) and Grewal et al. (2021) highlight how sustainable initiatives can enhance brand reputation, improve operational efficiency, and attract socially responsible investors. Similarly, Okafor et al. (2021) and Shamsuzzoha and Fontell (2024) underline the competitive advantages that companies gain from adopting sustainable practices. Even though it may be a significant share of companies' motivation, in the end, corporate social responsibility becomes a part of core business strategies (Dey et al., 2018). Subsequently, CSR also becomes regulated at the legislative level.

This growing integration of sustainability into corporate strategies and regulations has also brought increased attention to how companies define and communicate what is material in their sustainability efforts. "Materiality, like beauty, is in the eye of the beholder" (Hicks, 1961, p. 159). It is a starting point for sustainability reporting (GRI 1, 2021). There are disagreements about the interpretation and assessment of materiality by different authors and organizations (Huq & Mohammadrezaei, 2024). Moreover, companies may define materiality differently, depending on what they pursue (Adolph & Beckmann, 2024). These differences can influence what information is disclosed and how stakeholders interpret it. Table 1 represents variations of the materiality definition.

Most academic authors do not highlight the definition of the term but concentrate on a more research-oriented side, considering practical application and assessment of materiality. They focus on examining the materiality phenomenon, offering their frameworks and guidelines as well, but do not provide their own interpreted concepts. For this reason, more than half of the definitions in Table 1 belong to practitioners.

Table 1

“Materiality” definitions for sustainability reporting

Author	Definition
Huq & Mohammadrezaei (2024), p. 2	"Materiality refers to the degree of relevance of an (un)disclosed financial and non-financial information (e.g., sustainability) for users (e.g., shareholders and other stakeholders) in their decision-making processes."
IFRS S1 (2023), p.8	"Information is material if omitting, misstating, or obscuring that information could reasonably be expected to influence decisions that primary users of general purpose financial reports make on the basis of those reports, which include financial statements and sustainability-related financial disclosures and which provide information about a specific reporting entity."
GRI 3 (2021), p.4	"Topics that represent an organization’s most significant impacts on the economy, environment, and people, including impacts on their human rights."
Jones et al., (2016) p. 82	"Materiality is concerned with identifying those environmental, social and economic issues that matter most to a company and its stakeholders."
KPMG (2014), p.2	"Materiality is the principle of defining the social and environmental topics that matter most to your business and your stakeholders."
GRI 4 (2013), p. 11	"Materiality is the threshold at which aspects become sufficiently important that they should be reported."
Eccles et al. (2012), p. 66	"Key determinants of materiality are whether it will influence the decisions of users, whether the omission or misstatement would influence a user’s decision, the overall context of quantitative and qualitative information, and the importance of the practitioner’s judgment."

Source: Compiled by the author

All the provided definitions have both similarities and key differences. To begin with, the stakeholder focus is something that all authors except GRI 4 (2013) mention. Stakeholders within this table can be identified as those for whom the information in a report will be important or as those whom the company influences. Thus, Huq and Mohammadrezaei (2024), IFRS S1 (2023), Jones et al. (2016), KPMG (2014), and Eccles et al. (2012) position them as information users, while for GRI 3 (2021) they are subjects affected by an organization's activities. So, in this regard, material information is either something important for stakeholders or something that affects them.

In some definitions, a concept of ‘reporting threshold’ appears. IFRS S1 (2023), GRI 3 (2021), GRI 4 (2013), and Eccles et al. (2012) describe the point at which information or impacts become significant enough to require disclosure. This threshold is a guideline for determining what should be included in reports. The authors’ explanation is that if a piece of information is omitted or misstated, it may influence decision-making. On the other hand, definitions by Huq and Mohammadrezaei (2024), Jones et al. (2016), and KPMG (2014) do

not clearly address this threshold. Thus, Huq and Mohammadrezaei (2024) talk about a “degree of relevance”, and Jones et al. (2016) and KPMG (2014) refer to identifying topics of importance rather than finding them through a threshold. Although they also mention topics that “matter the most”, suggesting that there should also be some point at which information starts to matter.

Based on the information above, it is possible to identify another feature of materiality mentioned by half of the authors: the role of material information in decision-making. Huq and Mohammadrezaei (2024), IFRS S1 (2023), and Eccles et al. (2012) claim that materiality is a tool involved in the decision-making process for users, such as stakeholders, shareholders, and primary users of financial reports. In contrast, the rest of the authors present materiality as a broader concept that aims to be more representative and provide a comprehensive reflection of what is significant in a given context. In other words, according to the rest of the authors, materiality does not directly influence immediate decisions and shows the overall importance of topics or information.

Eccles et al. (2012) are the only authors who mention “the importance of the practitioner’s judgment.” Although their definition is the oldest and no one else has talked about it, emphasis on the subjective aspect of materiality through the importance of professional judgment in determining materiality is relevant for today, as reporting on sustainability matters becomes obligatory and auditors must evaluate whether organizations have appropriately identified and reported material issues. Table 2 presents the peculiarities of definitions discussed in a comparative format.

Table 2

Analysis of the “materiality” definition by different authors

Author(s)	Reporting threshold	Stakeholder focus	Influence on decisions	Internal focus (financial) impacts	External focus (non-financial) impacts	Practitioner's judgment
Huq & Mohammadrezaei (2024)	-	+	+	+	+	-
IFRS S1 (2023)	+	+	+	+	-	-
GRI 3 (2021)	+	+	-	-	+	-
Jones et al. (2016)	-	+	-	-	+	-
KPMG (2014)	-	+	-	+	+	-
GRI 4 (2013)	+	-	-	-	+	-
Eccles et al. (2012)	+	+	+	+	-	+

Notes: “+” – mentioned, “-” – not mentioned

Source: Compiled by the author

Another dimension of materiality that is currently at the peak of interest is the so-called double materiality (DM). This concept was already introduced in the Non-Financial Reporting Directive. However, frameworks for its disclosure were quite ambiguous, and therefore, not many companies included it in their non-financial reports (De Cristofaro & Gulluscio, 2023). Now, this problem is becoming more acute in connection with the coming into force of the Corporate Sustainability Reporting Directive. While the European Sustainability Reporting Standards provide a more comprehensive and detailed understanding of DM, practitioners still talk about the problem of the lack of frameworks and methodologies for identifying DM for companies in their sustainable reports (Link, 2024).

According to ESRS, double materiality consists of two interconnected pillars – financial materiality and impact materiality. Together, they form the definition of double materiality. A graphical representation of the concept is shown in Figure 1.

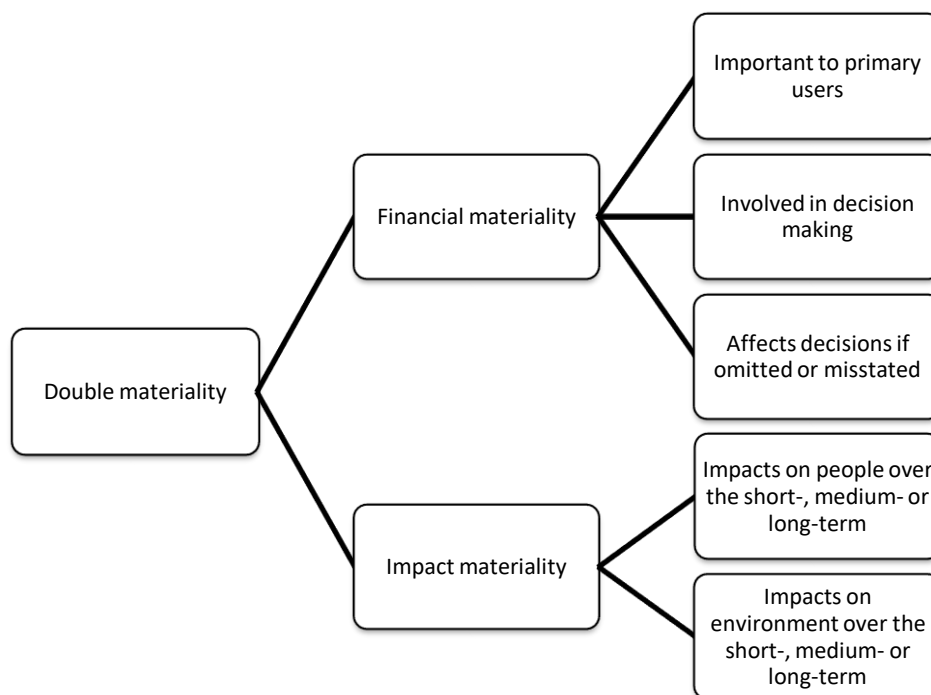


Figure 1. Two pillars of double materiality

Source: Compiled by the author based on ESRS (2023)

Financial materiality focuses on how sustainability issues affect the organization's financial performance and position, aligning with the interests of investors and other financial stakeholders (ESRS, 2023). At first, it might seem that financial materiality is essentially the traditional meaning of materiality for financial reporting, and they are quite similar indeed. However, the difference is simply that financial materiality concerns specifically sustainable issues, unlike the traditional version. Conversely, impact materiality considers a broad range of issues affecting people and the environment, including all real, potential, long or short-

term possible impacts (ESRS, 2023). In other words, it highlights all the positive and negative externalities a company produces.

Both dimensions of double materiality cannot be separated from each other. The circular relationship between them emerges as external impacts often influence the organization's internal financial performance over time. This interconnection is presented graphically in Figure 2.

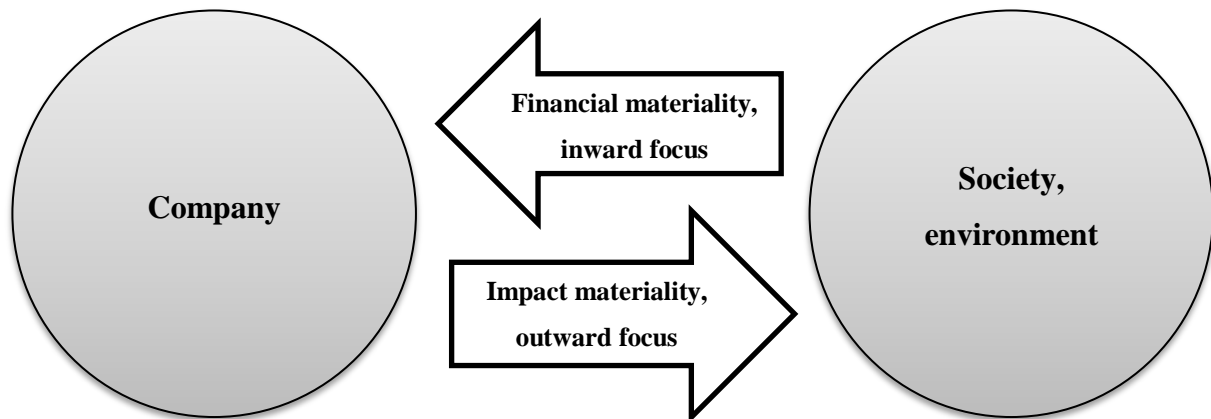


Figure 2. Relationship between financial and impact materiality

Source: Compiled by the author

Returning to Table 1, traces of double materiality in the collected definitions can now be seen. Internal and external focus represent financial and impact materiality, respectively. For instance, IFRS S1 (2023) substantially aligns with financial materiality, emphasizing internal impacts relevant to investors and other primary users of financial reports. In contrast, GRI 3 (2021) and Jones et al. (2016) lean toward impact materiality by highlighting external, non-financial impacts such as environmental and social concerns. Definitions like those of Huq and Mohammadrezaei (2024) and Eccles et al. (2012) attempt to cover both of these perspectives, addressing both financial and non-financial impacts, thus reflecting the dual focus, just like in double materiality.

To sum up, the definition of materiality today should cover several important aspects. The first and most important aspect is involvement and focus on stakeholders. They are both subject and object to materiality assessment. Next, materiality should influence decision-making processes; if it doesn't, the information does not pass the threshold at which it becomes important and, therefore, should not be counted as material. Last but not least, materiality should embrace external factors influencing a company's financial statements and the impacts this company produces on society and the environment. Thus, materiality today

encloses identifying information significant to stakeholders and decision-making processes, serving as a threshold for relevance by addressing both external factors impacting financial performance and the societal and environmental effects generated by the company.

1.2. International standards and materiality assessment across sectors

As sustainable development becomes increasingly popular, many people view it as an opportunity to make a profit. If you simply google “materiality assessment in sustainability reporting”, you will be provided with multiple tools and companies that offer you their help with the matter. The number of options makes it rather difficult for companies, and confusion grows (Link, 2024). Besides, many frameworks often offer different, sometimes even contradictory, instructions for assessing materiality. The problem also relates to the most famous and frequently used by companies guidelines (Jørgensen et al., 2022; Wu et al., 2018).

Appendix A presents popular organizations whose help is often preferred by companies, as well as the new ESRS with the SASB standards. Unlike the rest, the ESRS does not provide specific steps for the materiality assessment process. Therefore, the guide under the ESRS column presented in Appendix A is compiled by the author based on the ESRS document.

Most of the frameworks contain seven steps in the process of materiality assessment, except for GRI, which has only four, making their instructions more flexible and straightforward. Differences between the instructions arise already from the first step. PwC, first of all, suggests identifying and engaging stakeholders. Stakeholder engagement is also present in KPMG’s, ESRS’s, and partially in GRI’s instructions, but in the later stages. KPMG puts them on the last step, assuming feedback from stakeholders, not their direct engagement in the process. For GRI, stakeholders are an object in materiality assessment and are not directly mentioned in the guide.

The second step is similar for all except for SASB. SASB proposes to choose the right tools, while others concentrate on identifying potential sustainability topics and impacts appropriate to a company’s industry/business activity. The third step in GRI is assessing the significance of the impacts, and the last one is the prioritization of the most significant impacts for reporting. Prioritization is also KPMG’s step. It also asks for management engagement before the last stage. PwC requires assessing financial opportunities and risks and encourages aligning sustainability initiatives with business objectives. ESRS emphasizes alignment with regulatory requirements and transparency. It requires documenting the whole assessment process, monitoring, and regular reassessments. SASB’s main purpose, on the

other hand, is to align with investor needs and financial decision-making while also maintaining continuous improvement.

The author has created a simplified and generalized version based on the previously discussed guidelines in Figure 3.

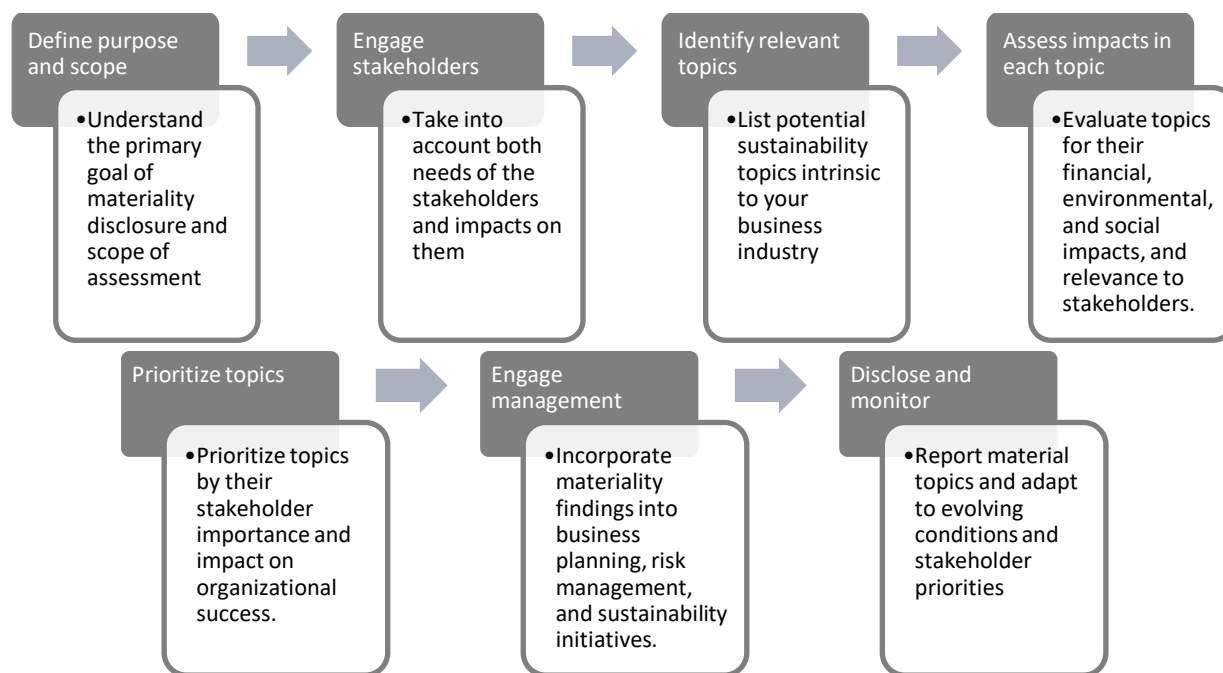


Figure 3. Guideline for materiality assessment and disclosure

Source: Compiled by the author based on GRI, PwC, KPMG, ESRS, and SASB

The first step, defining the purpose and scope, creates the foundation for the following work. Identifying the objective is important, as different companies may have different motivations for the performance of materiality assessment, which provides focus and enhances comparability. The next step, stakeholder engagement, considers both needs, preferences, and impacts on stakeholders. In the identifying relevant topics step, organizations have to list potential sustainability issues specific to their industry, which forms the basis for further assessment. Next, an impact assessment in each topic section is performed, where topics are analyzed for financial, environmental, and social impacts. In prioritizing topics, they are ranked based on stakeholder importance and organizational impact to form a list of topics to be disclosed. Finally, management engagement integrates the findings into strategic business initiatives, while disclosure and monitoring enable transparent reporting and adaptation to changing priorities.

It is important to mention here that there are no significant differences between sectors in materiality assessment processes. ESRS provides a universal tool for identifying

and disclosing materiality matters. However, differences may arise in the third step of the guideline presented in Figure 3. When a company identifies relevant topics, it is important to understand the nature of the business, in order not to waste time and money on collecting data and analysing irrelevant data. It is also obvious from the GRI, which provides universal standards (GRI 1), but then sector and topic standards (GRI 3).

Yet, the problem remains unchanged. The lack of frameworks and methodologies in materiality assessment may jeopardize the comparability of information and question its reliability (Mäkelä, 2024). Thus, Jones et al. (2016a), researching the adoption of GRI G4 (frameworks for sustainability reporting) rules by companies, found that businesses implement the very same guidelines differently. However, the sample consisted of companies from different sectors, which suggests a need for sectoral research. Nevertheless, an important insight from the mentioned study is that topics considered material are focused on business issues and continuity instead of environmental aspects. This, once again, may suggest that the primary motivation for companies to report on sustainability matters is the benefits in monetary and image terms that come along with ESG reporting. Yet, Eccles et al. (2012) already described the need for sector-specific research. According to their findings, fewer variations of material topics in sustainability reporting are expected to arise if a study sticks to a single industry. If a company considers an issue material, other companies within this industry are supposed to do the same unless specific circumstances might prevent the company from doing so (Eccles et al., 2012). For instance, considering this thesis's topic, the material problem for a bank may be consumer data protection. Hence, the issue should be material to the whole banking sector. However, in a sample, there might be a bank that specializes in agriculture, for example, Credit Agricole Bank in Ukraine. One of its most material topics would be access to finance for smallholder farmers. Thus, variations may naturally arise even within a single sector. This was also proved by Jones et al. (2016b), who investigated materiality in UK retail companies. Although, according to their findings, materiality not only varies across a sector but approaches to its assessment and the extent to which it is incorporated into reports differ overall. Moreover, there is no proof that a sector-specific approach was used to determine materiality, as was claimed by the authors. This supports the previously mentioned issue of the lack of clear frameworks and methodologies, contributing to the incomparability of reported information. Similar problems are also related to DM, for which frameworks for disclosure were quite ambiguous, and therefore, not many companies included it in their non-financial reports at all (De Cristofaro & Gulluscio, 2023). Moreover, the DM concept is more complex and newer and requires more effort for a

company to report. Thus, the abovementioned issues of materiality become even more acute for DM.

There are many issues regarding materiality assessment in sustainability reporting. Research by Font et al. (2016) on materiality assessment in the cruising industry revealed that it is surprisingly underdeveloped, despite the cruising industry being considered quite polluting. The study identified that many companies in the cruise sector adopt materiality primarily for compliance or reporting purposes rather than integrating it into core business strategies. Furthermore, companies in this sector struggle to involve stakeholders in the assessment process. Similarly, a newer study by Miettinen (2024), who investigated materiality determination practices in EU pharmaceutical companies, found that while the pharmaceutical companies reflect some progress, there is significant inconsistency in how materiality is defined and reported. Stakeholder engagement is still an issue, as companies tend to have company-centric perspectives rather than adopt broader, stakeholder-driven approaches.

There are not many studies that explore materiality assessment in sustainability reporting (SR) within one sector, especially banking. Banks are not directly related to any environmental impacts and do not cause significant negative effects on nature. Its activities are not comparable in terms of pollution to those of other industries, such as food, transport, energy, cruise, chemical, production, and others. However, these “other” industries should somehow fund their activities and invest in development. Banks are usually the ones who give funding to projects and companies that may indeed harm the environment. (Sardianou et al., 2021) Moreover, the banking sector significantly impacts another dimension of ESG – the social dimension. Thus, materiality assessment in SR should be studied.

A study by Ortar (2016) has quite an old sample of 5 of the world’s largest bank reports from 2008 to 2012. He concludes that although all 5 banks firmly declare their commitment and obligation to sustainable activities, in reality, in most cases, they do not include disclosures of material problems in SRs. Besides, stakeholder engagement is not evident from the reports. Among 22 reports, only one had a materiality matrix, and reports are merely incomparable. On the contrary, Putri et al. (2022) found that most of the banks they researched do have a definition of materiality. Moreover, according to the study, they disclose the identification stages of materiality assessment. However, stakeholder engagement is still an issue. The sample was newer and broader (15 world banks’ reports for the year 2020), suggesting an overall improvement in the matter over recent years. Formisano et al. (2018) also point out problems related to stakeholder engagement in materiality

assessment. They studied reports for 2015 from 56 Italian banks. Using descriptive statistics, Formisano et al. (2018) found that less than half of the indicators are equally material to both the bank and stakeholders, while the rest are evaluated with different levels of importance among observers.

The latest research by Sardanou et al. (2021) found that the most prioritized dimension for banks is economic. They took reports of 37 European banks for 2018 and applied the “SDG Materiality Analysis Framework.” As a result, it was found that there is a low alignment of material issues with the SDG goals. The environmental dimension is entirely inferior to the other two. The social dimension has a higher alignment rate, but the economic dimension has much more weight.

The benefits of CSR adoption are becoming increasingly evident nowadays (Bar Am et al., 2023; Okafor et al., 2021; Shamsuzzoha & Fontell, 2024). It not only shows the responsibility of a reporting entity but also positively influences a company's financial health. Vasileva and Lasukova (2013) proved it empirically using a sample of the 12 biggest Ukrainian banks. Reports were taken from 2006 to 2012, and a Stochastic frontier approach was applied for research. They found a positive correlation between CSR and a bank's stability. Besides, CSR also positively correlates with the efficiency of a banking business. However, an important consideration from their research is that the effect of CSR adoption is not immediate: “Implementation of the CSR measures in the current year does not affect the bank's financial position in the following year” (Vasileva & Lasukova, 2013, p. 93). Ultimately, it can be concluded that the importance of CSR among Ukrainian banks was already seen in that period, even before the modern sustainability trend.

Another study with a sample of Ukrainian banks was carried out by Kostyuk et al. (2013). The sample consists of 40 Ukrainian banks. The methodology is based on Carroll's CSR pyramid, the authors identified 25 indexes from it. A report that includes the index gets “+1” to the CSR index. Otherwise, it gets “0.” Ultimately, the researchers found that the average index was 10. Almost half of the banks scored higher than the average. 12,5% got exactly “10”, and 18% received only “8”. The index is based on economic, legal, ethical, and philanthropic components. Although the study does not show which components were the most popular, it already gives an understanding that some of these were material to banks. Reviewed articles are presented in Table 3.

Table 3

Overview of empirical studies on materiality and sustainability reporting in the banking sector

Author(s)	Sample	Reports' publication year(s)	Methodology	Key findings
Vasileva & Lasukova (2013)	12 biggest Ukrainian banks.	2006-2012	Stochastic frontier approach (SFA).	CSR has a positive impact on efficiency and stability.
Kostyuk et al. (2013)	40 Ukrainian banks.	2010	CSR index with 25 indicators based on Carroll's CSR pyramid.	The average score is 10/25. Usually, larger and non-resident banks perform better.
Ortar (2016)	5 world's largest banks.	2008-2012	Textual examination, thematic comparison using NVivo 8.	The reports are not comparable. Only 1 report presented a materiality matrix. Material issues are much broader than in GRI PI.
Formisano et al. (2018)	56 Italian banks.	2015	Descriptive statistics.	39.84% of indicators are important to both banks and stakeholders, while others vary in value among observers.
Sardianou et al. (2021)	37 European banks	2018	SDG Materiality Analysis Framework (SDGs_MAF).	There is a low alignment of materiality issues with SDGs. The economic dimension is prioritized.
Putri et al., (2022)	15 world banks.	2020	Qualitative approach.	Most banks define materiality and its identification stages, but stakeholder engagement varies; some involve them at all stages, while others do not.

Source: Compiled by the author

To sum up, today, materiality assessment in sustainability reporting faces a lot of challenges. The lack of standardized frameworks leads to inconsistencies across companies and sectors - different guidelines for materiality assessment lead to different results (Jørgensen et al., 2022). Insufficient stakeholder engagement questions the reliability of data. Although researchers indicated that sustainability reporting positively correlates with bank performance, the effectiveness of materiality assessment varies. Besides, new requirements in legislation for reporting do not provide specific methodologies and create much pressure on both companies and auditors. The establishment of order in this area is at an early stage, and a lot of work has to be done in the future in order to receive meaningful, comparable, and reliable reports.

2. Empirical analysis of material topics in the banks of Ukraine

2.1. Methodology of research and data collection methods

As part of the EU Association Agreement, Ukraine is in the process of integrating EU sustainability reporting regulations into its legal framework (Association Agreement with Ukraine, 2017). In 2014, the Non-Financial Reporting Directive (NFRD) was adopted, requiring large companies to disclose their non-financial and sustainability information. Following this, on January 5, 2023, the Corporate Sustainability Reporting Directive (CSRD) came into force, expanding the number of firms that must report and the amount of information to be reported through new requirements, also reckoning for the usage of European Sustainability Reporting Standards (ESRS). Companies from non-EU countries operating in the EU will face compliance requirements that will make global supply chains more transparent. The deepening economic interaction between Ukraine and the EU implies an increasing number of Ukrainian businesses participating in European supply chains and operations, which will put some companies under the direct influence of CSRD. Both directives consider materiality as an important part of the reporting process.

Currently, according to the National Bank of Ukraine (2024), there are no specific requirements for sustainability reporting in Ukraine. However, it is claimed that the matter is under development process and, therefore, companies are encouraged to prepare for it now already. Moreover, most of the legislative requirements developed in Ukraine are based on European ones and are directly influenced by them. (Національний банк України, 2024)

In order to assess the state and processes in materiality assessment in Ukrainian banks, 20 of Ukraine's largest and most popular banks were taken as a research sample. However, one of the banks did not have available reports. Therefore, the sample consists of 19 banks. These banks include both state-owned and private banks, which can be either Ukrainian or foreign-owned. Reports are taken for the period of 2019 – 2023 years. This specific period was chosen because, firstly, it is the most recently available one, and most of the banks have published reports for this period. Secondly, it was chosen for containing two significant events – COVID-19 in 2020, and the war between Russia and Ukraine, which started in 2022. The influence of these incidents is expected to be reflected in the sustainability topics of the reports. The years 2019 and 2021 were taken as pre- and post-pandemic years to compare how exactly the global pandemic influenced material topics. The 2022 and 2023 reports are included for two main reasons: first, they reflect a significant event, the full-scale invasion of Ukraine. Although it is not a post-war period, as the conflict between countries is ongoing, the author still expects to find differences in material topics. Second, they are the most up-to-

date reports, which helps the study to reflect the current situation. Since during the period of the research, less than half of the researched banks posted their reports for 2024, this year was not taken.

Most of the reports are available in English on the banks' websites, although some do not have translations from Ukrainian. The sample is presented and briefly described in Table 4. Some of the reports were not available, and, therefore, overall 91 reports were collected and analysed. The report is either a sole sustainability report or sustainability as a part of a financial report. Even if the sustainability section was missing in published documents, the author still collected the report, since the absence of the data is also an indicator of how widespread materiality assessment and reporting are.

Table 4

Sample of banks and their description

Name of a bank	Country of ownership	Language(s) of reports	Opening year	Assets (in millions UAH)
Accordbank	Ukraine	Ukrainian	2008	17 855,6
Citibank Ukraine	USA	English, Ukrainian	1998	83 966,6
Credit Agricole	France	English, Ukrainian	1993	114 374,4
Credit Dnipro Bank	Ukraine	English, Ukrainian	1993	23 050,4
Idea Bank	Poland	Ukrainian	1989	7 218,5
ING Bank Ukraine	Netherlands	Ukrainian	1994	28 594,8
KredoBank	Poland	English, Ukrainian	1990	57 733,5
Oschadbank	Ukraine, owned by the state	English, Ukrainian	1991	412 369,5
OTP Bank	Hungary	English, Ukrainian	1998	109 490,9
Praveks Bank	Italy	English, Ukrainian	1992	12 244,6
PrivatBank	Ukraine, owned by the state	English, Ukrainian	1992	746 858
ProCredit Bank	Germany	English, Ukrainian	2001	40 764,4
PUMB (FUIB)	Ukraine	English, Ukrainian	1991	173 079,6
Raiffeisen Bank	UK/Austria	English, Ukrainian	1998	216 719,8
Taskombank	Ukraine	Ukrainian	1989	36 840,4
Ukreximbank	Ukraine, owned by the state	English, Ukrainian	1992	274 532,1
Ukrigasbank	Ukraine, owned by the state	English, Ukrainian	1993	193 079,5
Ukrsibbank	France/UK	English, Ukrainian	1990	165 267,2
Universal Bank	Ukraine	Ukrainian	1994	137 100,3

Source: Compiled by the author based on banks' websites and the NBU

The research methodology consists of content analysis of the reports and automated text analytics. Content analysis is a widely used research method that involves identifying patterns, themes, and frequencies of words or concepts within textual data (Krippendorff,

2018). It is especially useful for systematically analyzing large volumes of qualitative data, such as sustainability reports.

For example, Bahadar and Zaman (2022) used content analysis to investigate CSR disclosures in the banking sector during the COVID-19 pandemic. Similarly, Mauro et al. (2020) conducted a content analysis of social and sustainability reports from Italian public universities to assess their alignment with integrated reporting principles. These examples show the method’s relevance and adaptability for studying materiality topics across different periods. The methodology of the empirical part of the thesis is presented in Figure 4.

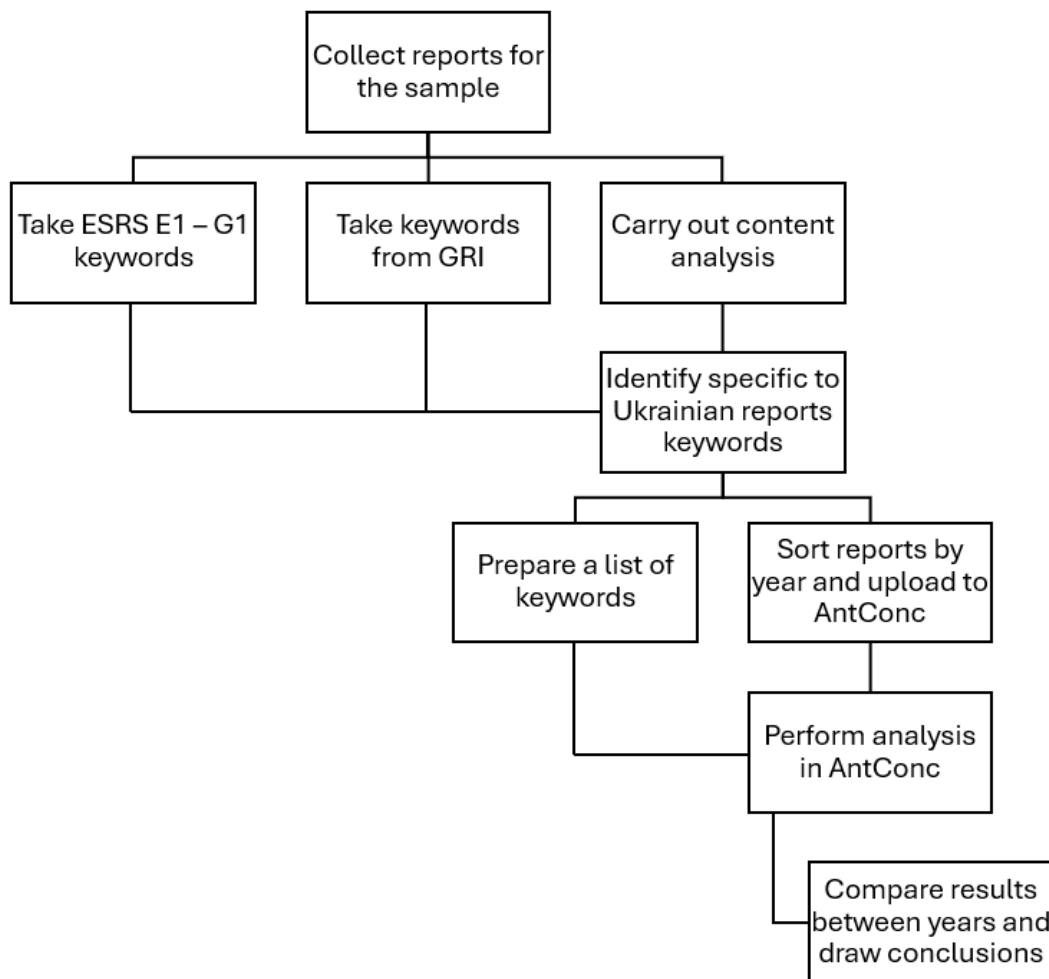


Figure 4. Methodology for the empirical analysis

Source: Compiled by the author

As seen in the previous research, the first step for most of the studies is identifying keywords. In order to cover all of them and not miss any sustainability topics, the keywords for analysis have been chosen from ESRS E1 to ESRS G1, and GRI material topics for the banking sector. These standards provide a broad set of topics covering every dimension of ESG. Next, the reports are manually reviewed to find and add topics specific to the material

themes of the Ukrainian banks. The author sorted all the keywords into five groups: environmental, social, governance, related to the pandemic, and related to the war. This way, it is easier to track changes in every dimension. The coding tree is presented in Appendix B. The following Table 5 is an example from the coding tree.

Table 5

Part of the coding tree

Theme	Category	Keyword
Environmental	1. Natural environment	a. Climate
		b. Water
		c. Biodiversity
		d. Ecosystems
		e. Population
	2. Pollution	a. Pollution
		b. Waste
		c. Carbon footprint
		d. Emissions
		e. Energy

Source: Compiled by the author

The list presented in Appendix B was the base for the analysis. However, it is not absolutely precise. First of all, synonyms were used as well for more comprehensive results. For example, the word “Sustainable” was also referred to as “Sustainability”, “Data privacy” was also analysed as “Data protection”, “Digital banking” as “Digital service”, “Psychological aid” as “Psychological support”, etc. The reason for this is that different banks refer to the same matters with different wording. Besides, reports are initially written in Ukrainian, and the same word could have been translated in a slightly different way. Since some reports were only available in Ukrainian, the author also used these keywords in the Ukrainian language and included the results in the total count, so that the final result is holistic. The last thing that is important to mention regarding the keywords is that some of them are the same for pandemic-related and war-related groups. Such topics are “Mental health”, “Emergency”, “Support for Ukrainian society”, “Psychological aid”, and “Support for entrepreneurs”. They can be considered general for crisis periods and, therefore, included in both groups. This implies that these keywords need to be analysed more carefully; one cannot immediately draw conclusions about the causes of their popularity in a certain period.

The final step is to upload the sustainability reports into AntConc. AntConc is a freeware, multiplatform tool for carrying out corpus linguistics research, introducing corpus methods, and doing data-driven language learning. AntConc is developed in Python and Qt

using the PyInstaller compiler and uses SQLite as the underlying database. (Anthony, 2024) Previous researchers have used different approaches. However, their aims differ between each other and from the author's. What unites them is the usage of statistical tools. Therefore, the text analysis platform was chosen. An overview of material topics is carried out using the software and pre-collected keywords. The frequency of mentions of each keyword and cluster is found and compared between the years 2019 - 2023. To achieve it, the author splits the collected reports into five corpora.

Corpora is a large collection of real-world text. Corpus (corpora) analysis includes finding the most common words or phrases, collocations, and concordance (Kanoksilapatham, 2014). After collecting reports, the author prepared five corpora. Each corpus contains reports from all the banks of a specific year. Using the keywords and AntConc software, the output consists of the frequency of a specific word, the number of files (reports) it was used in, the words that appeared together with the given word, the context it was used in, and the opportunity to see where exactly in the report this word was used. Thus, the author could get a perfect overview of each sustainability topic in a range of reports specifically for each year. In each corpus, the number of reports can be different by 1-2 reports, since some banks' reports were not available. Corpus 2019 and 2020 had all 19 reports, Corpus 2021 and 2022 both had 17 reports, and Corpus 2023 was missing only one report, 18 overall. Because of this, there can be a small error in the results. To visualise results, the author created tables in Microsoft Excel with the frequencies of keywords and their range for each researched year. The WordClouds are prepared and visualized based on AntConc output data.

To conclude, the research consists of two main steps: data collection and data analysis. Data collection includes downloading reports from banks' websites, taking predefined keywords from ESRS and GRI, and collecting sector-specific topics by performing content analysis. The research methodology consists of sorting reports by year, collecting keywords by dimension, and using AntConc as a platform for performing primary analysis.

2.2. Analysis of findings and discussion of the results

The main results of the analysis are presented in Appendix C and Appendix D. From Appendix C, it can be identified which material matters were popular throughout the years. Keywords that reached 10 or more reports are considered trending. This amount was chosen since it represents more than half of the researched documents per year (max19 reports per

year). Thus, Figure 5 presents what topics were popular in each specific year based on the number of reports where they are mentioned.

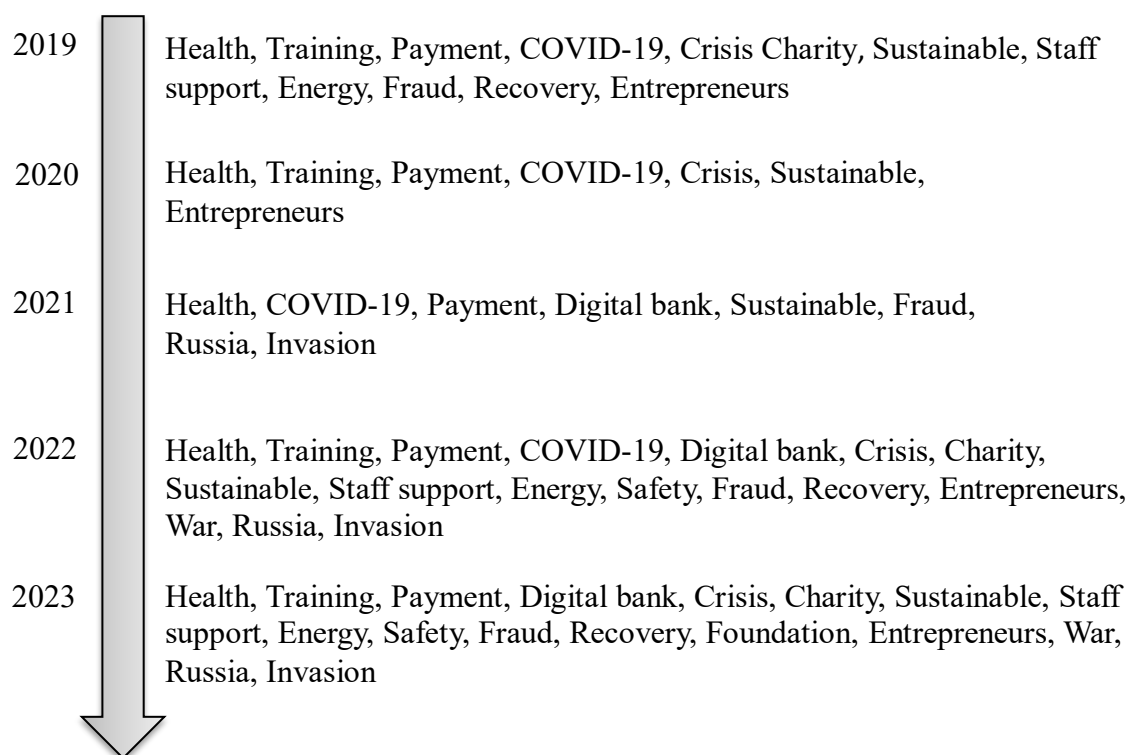


Figure 5. Timeline of material topics in sustainability reports in 2019-2023

Source: Compiled by the author

Several sustainability topics recur consistently across each year of the study period. Those are “Health”, “Payment”, and “Sustainable”, which reflect the enduring focus of Ukrainian society and business in banking. Some other topics that were also frequently mentioned (4 years out of 5) are “Training”, “COVID-19”, and “Entrepreneurs”. While “COVID-19” is most likely a disappearing trend already, as the range of reports it was mentioned in dropped significantly in 2023, the five themes are expected to be material for most of the banks for a long time later, as they show a consistent trend. The finding partially aligns with the research of Sardanou et al. (2021), who found that Economic and Social dimension topics prevail, and Ortar (2016), who reached similar conclusions. They identified that banks promoted health and education, which supports the findings. Nevertheless, “COVID-19” shows how companies adjust to emerging concerns of stakeholders and address them in reports. “Payment” is directly related to the banking activity. Therefore, it is an essential part of sustainable reporting in this sector. “Health” and “Training” show the importance of employee well-being in Ukrainian banks. In addition, support for entrepreneurs also remains a central topic in society, and consistency of “Entrepreneurs” highlights that.

Table 6 below shows a more precise picture of how each topic fluctuated during 2019-2023. At first glance at Table 6, one can see that there are many more material topics in 2022-2023, compared to the first half of the researched years. The first conclusion that appears to be drawn is about the influence of CSRD issuance, which may have caused an overall increased attention to sustainability reporting in Ukraine.

Table 6

Number of reports where material topics were mentioned in 2019-2023

	2019	2020	2021	2022	2023
Health	11	12	14	15	15
Training	15	11	7	12	12
Payment	13	14	10	14	11
COVID-19	10	14	15	13	7
Digital banking	8	9	13	13	12
Crisis	11	13	9	13	12
Charity	10	9	9	10	10
Sustainable	10	11	11	11	13
Staff support	12	9	9	13	11
Energy	11	6	9	12	12
Safety	9	9	8	14	13
Fraud	10	8	11	15	14
Recovery	10	8	9	12	12
Foundation	6	7	7	7	12
War	1	2	8	17	16
Russia	4	3	10	14	16
Invasion	0	0	11	17	18
Military	5	4	11	14	17
Entrepreneurs	12	11	8	12	11

Notes: no color – mentioned in 0 to 4 reports;  - mentioned in 5 to 9 reports;  - mentioned in 10+ reports

Source: Compiled by the author

However, after reviewing what topics emerged, it can be concluded that war had a significant weight. Firstly, the keyword “Crisis” is the main indicator. It initially appeared to be high in 2019-2020, which is likely related to the COVID-19 pandemic. On the same principle, “Crisis” becomes more significant in 2022-2023. Another strong indicator is the keyword “Safety”, which was not so popular in any other year. “Energy” is not such an obvious keyword here. However, if one recalls massive Russian attacks on Ukrainian energy infrastructure, it becomes more justified. Massive destruction of energy systems in Ukraine led to so-called blackouts, when entire districts and cities were left without electricity. This has a direct influence on bank operations. However, it is difficult to explain the trend on “Energy” in 2019. Some direct keywords that indicate the influence of the war are “War”,

“Russia”, “Invasion”, and “Military”. The last keyword is also mentioned in some reports of 2019-2020 in connection with the conflict that has lasted since 2014. It is interesting that the only keyword that splashed in association with the pandemic is “Remote work”, while war-related influence is associated with a much broader range of keywords. Yet, there is another keyword that increased in 2022-2023. “Fraud” is not directly related to the Russian military aggression. But based on the collected information about the number of reports from Table 7, “Fraud” has a similar trend to “War” and related keywords. The case is presented in Figure 6.

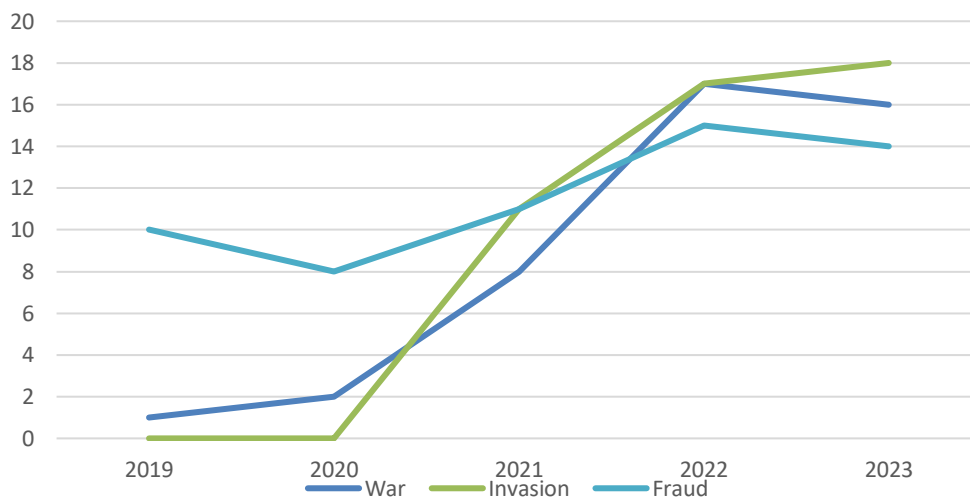


Figure 6. Trends of “Fraud” and war-related keywords

Source: Compiled by the author

In 2020, “Fraud” appeared in 8 (out of 19) reports. But in 2022, it reached 15 (out of 17). To get a better understanding of what kind of fraud is being discussed in the reports, the author ran collocation analysis in AntConc. The following Figure 7 shows the top eight collocations of “Fraud”. The WordCloud was prepared based on the table in Appendix E.

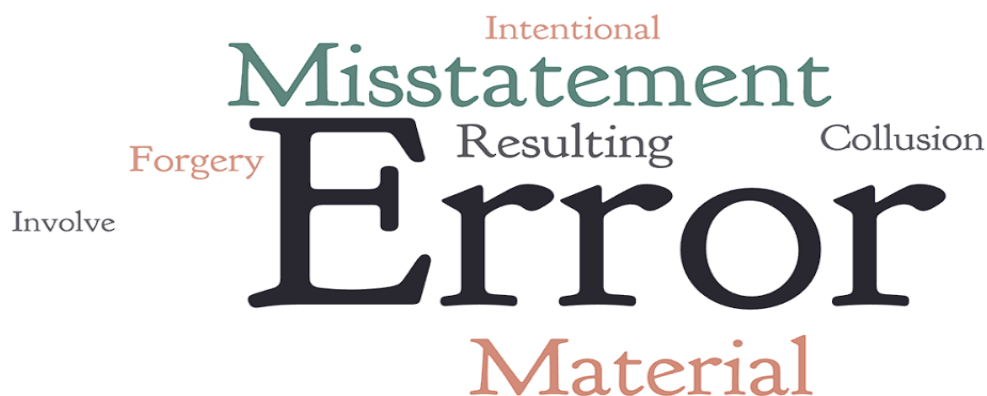


Figure 7. Collocates of “Fraud” in 2022

Source: Compiled by the author, using WordArt.com®

As can be seen in Figure 7, the biggest collocates are related to some error or misstatement. This might be due to the difficulties of report preparation during wartime.

However, smaller words seem to describe criminal activity. For a clearer understanding of the context, the author looked at the reports directly and found that these keywords are used mainly in the audit part of the report. But the reason for the surge in mentions still remains unknown, especially considering that the surge occurred only in 2022. It leaves space for further research.

Other keywords that have not yet been discussed are “Staff support”, “Charity”, “Foundation”, “Digital banking”, and “Recovery”. “Digital banking” is among the keywords that are not related to the war and represent an overall trend in digitalization. “Charity” and “Foundation” both refer to helping people. Since “Charity” also appeared in 2019, the author compared the collocations in Appendix F. In 2019, the help was aimed at providing medical support to children with health issues and other, more general matters. Words like “volunteering”, “run”, “dinner”, and others appeared. In 2022, on the other hand, the focus is more on supporting people affected by the war. Such words as “prosthesis” (protez), “armed”, and “forces” emerged. The last word, “Recovery,” relates to a discussion of ways to deal with the consequences of the war, while at the beginning of the research period, it was related mostly to the children's health issues. Therefore, although some topics remained the same, their context changed as the stakeholder concerns shifted.

To conclude the results of the Appendix C analysis, the following Figure 8 presents the timeline of two major events in Ukraine that caused the main changes in reported sustainability themes.

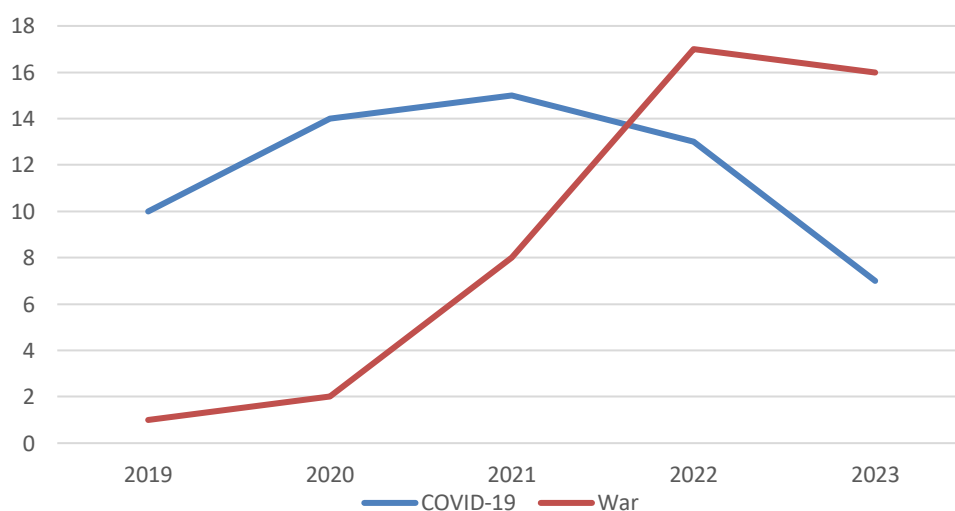


Figure 8. Number of reports that included “War” and “COVID-19”

Source: Compiled by the author

The reason the topics were mentioned before the year a crisis occurred is simple. The pandemic started at the very beginning of 2020, and since reports are published later in the

year following the reported period, half of the banks already mentioned it in 2019. As for the war, it started back in 2014, although it had a lower scope. Therefore, the word is included in 2019 and 2020. But for 2021, the reason is the same as for the pandemic – reports for 2021 were published after the beginning of the full-scale invasion. Besides, the signs of a soon-to-begin conflict started to appear already in the autumn of 2021.

Some keywords in the sample reached either an exceptionally low range of reports or zero at all. However, the author believes they are important for banks to consider and report in their sustainability documents. One such keyword is “Green financing”. Banks are usually the ones who give funding to projects and companies that may harm any of the ESG dimensions (Sardianou et al., 2021). Therefore, banks must acknowledge their responsibility in this regard. Other topics that deserve higher attention include “Working time”, “Privacy”, and “Customer rights”. They were expected to earn a high range of reports, but ended up with a result close to zero.

When analysing Appendix D, the frequency of keyword mentions, the author encountered an issue related to the bank outliers. Some topics experienced sudden drops throughout the period. 2021 showed a decline in most of the environmental topics. “Climate”, “Energy”, “Water”, and other topics decreased in 2021, but then quickly recovered. Besides them, the most noticeable decline was in “Safety”, “Health”, “Training”, “Staff support”, and “Energy”. At the same time, “CSR” peaked during this year. Firstly, it was assumed that there was a correlation with the drop. The trend is presented in the following Figure 9.

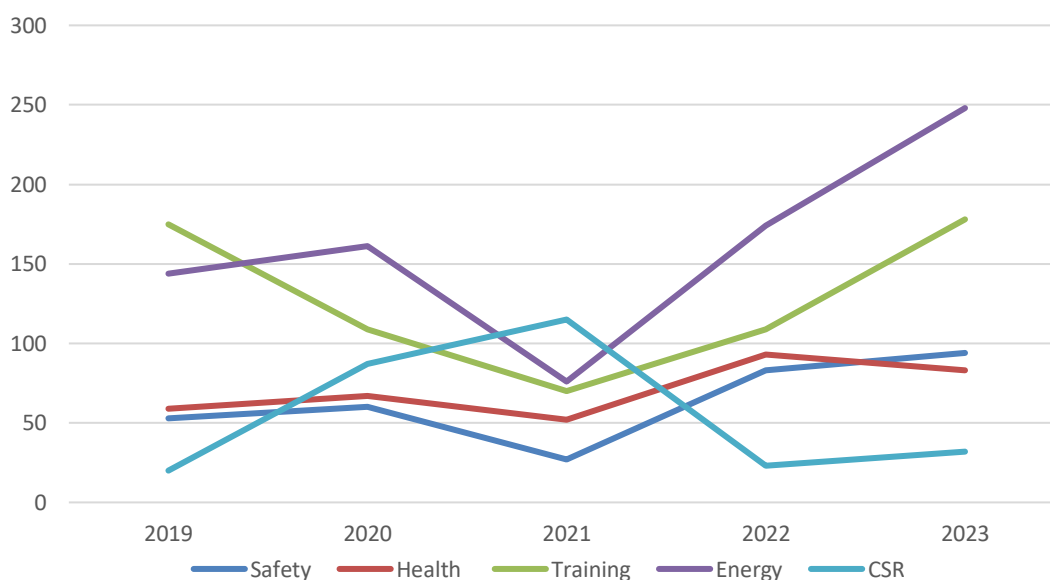


Figure 9. Dynamics of “Safety”, “Health”, “Training”, “Staff support”, “Energy”, and “CSR”

Source: Compiled by the author

The next step was to understand the reason for such a phenomenon. The explanation turned out to be related to the research limitations. As was mentioned in 2.1. subchapter, some of the banks did not publish their reports. Thus, there were two banks that had missing reports: Raiffeisen did not publish in 2021 and 2023, and Ukrgasbank for 2021 and 2022. Ukrgasbank is the reason for the drop among the keywords shown in Figure 9. Topics with the most noticeable drops were chosen for deeper analysis to understand the cause. Results of a closer analysis are presented in the following Table 7.

Table 7

The reason for a sudden decline in the frequency of some keywords in 2021

	2020		2021	
	Bank name	Freq	Bank name	Freq
Energy	Ukrsibbank	12	Ukrsibbank	21
	Oschadbank	11	Oschadbank	14
	PUMB (FUIB)	11	PUMB (FUIB)	9
	Credit Agricole	5	Credit Agricole	7
	Ukrgasbank	118	Praveks Bank	6
	Raiffeisen Bank	4	PrivatBank	2
			OTP Bank	12
			Ukreximbank	2
			Accordbank	3
			Ukrsibbank	91
Sustainable	Ukrsibbank	32	PUMB (FUIB)	7
	PUMB (FUIB)	6	Credit Agricole	4
	Credit Agricole	7	Oschadbank	5
	Oschadbank	5	OTP Bank	4
	OTP Bank	1	PrivatBank	4
	PrivatBank	3	Ukreximbank	3
	Ukreximbank	1	Citibank	2
	Citibank	2	Idea Bank	6
	Idea Bank	3	Ukrgasbank	2
	Ukrgasbank	127	Raiffeisen Bank	1
Raiffeisen Bank	11	Kredo Bank	1	

Source: Compiled by the author

Thus, the issue lies in banks that mention some keywords much more frequently compared to others. Ukrgasbank had a particularly high frequency of keywords, and since the reports for 2021 and 2022 are absent, it caused a relatively significant drop. As can be seen in Table 7, “Energy” was mostly mentioned by Ukrgasbank in 2020. But then the absence of Ukrgasbank’s reports in 2021 caused the described effect. Another outlier is Ukrsibbank. Its influence was first perceived as the correlation between a drop in keywords and the surge in “CSR”, but the essence of the effect is the same as in the case of Ukrgasbank.

Another question that needs a closer look is the sudden jump in “Climate” and “Biodiversity” in 2022. It turned out that most of their citations belong to the ING Bank report. In addition, until 2022, ING Bank published reports in the format of a scan of the paper version, which made it impossible to include these in the statistics due to the format being unreadable by software. Thus, the reason for the effect is again the same: a report had a remarkably high rate of mentions of some keywords, and the absence of the report in some years of the researched period causes the twisted result. The issue is presented in Appendix G.

In 2.1. subchapter, the author mentioned a possible error due to the absence of some reports. Thus, all the keywords that had unexplainable jumps over the years occurred mainly due to the influence of outliers and limitations in terms of unpublished reports. Yet, it does not mean that the data received is fully biased. The issue only relates to the frequency of mentions and does not affect the range of keywords. Besides, Appendix D helps to understand the extent to how deeply specific topics are described in the reports. The following Figure 10 shows what keywords were most discussed during the 2019-2023 period.



Figure 10. The most discussed sustainability topics in 2019-2023

Source: Compiled by the author, using WordArt.com[©]

Keywords that were mentioned at least 100 times during 2019-2023 were taken. This number assumes that a keyword had to be mentioned by each report at least 1-2 times (sample size is 91). As seen from Figure 10, the majority of the most discussed topics repeat the most popular topics based on the number of reports. However, one can see some additional themes that did not make it into Figure 5. Such topics are “Education”, “Women”, and “Gender”. While these align with the findings of Sardianou et al. (2021), “Paper” that appeared here among the most discussed contradicts the researchers’ statement about low focus on environmental themes. According to Formisano et al. (2018), great attention is paid by banks to the philanthropic aspects aimed at helping local communities. Such keywords as “Charity”, “Foundation”, “Society”, and “Population” support the previous findings.

Overall, the period 2019-2023 can be described as follows:

- 2019: Focus on traditional ESG topics and emerging issues like COVID-19 (early mentions);
- 2020: Pandemic-driven focus;
- 2021: Transition year, digital banking and Russian invasion emerged as key themes;
- 2022: War-related topics (“War”, “Invasion”, “Safety”, and others) dominated;
- 2023: Continuous war response, charity context shift.

In 2019, Ukrainian sustainability reports focused on traditional corporate responsibility themes, with some early signs of future disruptions. This year shows a stable ESG landscape. The early mentions of COVID-19 and fraud suggest that Ukrainian businesses were already aware and ready to react to emerging global and local risks. Similarly to the findings of Kostyuk et al. (2013), the author found that larger banks provide more thorough sustainability information. However, they found that non-resident banks performed better, while in current research, the author noticed much broader discussion of ESG in state-owned and resident banks, and foreign-owned banks performed poorly or did not include sustainability in reports at all. This may be due to the absence of laws regulating sustainability reporting in Ukraine, so foreign banks do not volunteer to prepare sustainability reports, which may bring additional costs.

In 2020, the pandemic was broadly discussed and led to, in general, non-significant changes in reported material topics, which does not align with the research of Bahadar and Zaman (2022), who found a correlation between COVID-19 and sustainability topics mentions.

The transitional year 2021 is marked by the rise of digital banking and the first clear signs of impending war. Ukrainian banks' sustainability reports began addressing both geopolitical instability and pandemic consequences. The February 2022 invasion caused a dramatic shift toward security, humanitarian aid, and emergency measures. Sustainability reporting became a tool for crisis documentation, with businesses focusing on employee safety, fraud measures, and community support. 2023 continues the war response with a remaining focus on war-related topics. This year is the beginning of a "new normal," with sustainability strategies balancing wartime needs with recovery planning. This reporting period shows how well banks can address the arising needs and concerns of their stakeholders.

To conclude the analysis part, the following Figure 11 presents the material topics reported by the majority of banks in 2023 and their significance (based on the size of the word). These are currently the most material topics in Ukrainian banking sector.



Figure 11. Material topics in 2023

Source: Compiled by the author, using WordArt.com[©]

The findings of this study reveal both alignments and differences with previous research on materiality assessment in sustainability reporting within the banking sector. Similarly to the conclusions of Sardianou et al. (2021), who found that European banks prioritized economic dimensions over environmental and social ones, Ukrainian banks in this study consistently emphasized governance-related topics like "Payment", "Fraud", "Crisis", and others. However, unlike their European counterparts, Ukrainian banks demonstrated a strong focus on social issues ("Health", "Staff support", "Charity", etc.). Under the influence

of major events, reports shifted the focus of their topics, reflecting the local impact of the war and the pandemic. This aligns with Putri et al. (2022), who noted that banks increasingly integrate stakeholder concerns during disruptions.

Conversely, the study contrasts with Ortar's (2016) observation that banks often neglect materiality matrices and stakeholder engagement, while their reports are incomparable. Ukrainian banks, especially state-owned ones, provided detailed disclosures on war-related impacts ("Energy", "Fraud", "Charity", etc.), suggesting a quick and transparent approach to stakeholder concerns. Similarly to Formisano et al. (2018), this study found differences in how materiality is framed. Different reports had varying scopes of sustainability data, but at the same time, some topics are consistent among most of the reports, and, therefore, comparability is in place.

Overall, the findings of the thesis mainly align with the previous research conclusions, but also have differences that highlight the uniqueness of the Ukrainian banking sector in the turbulent period.

Conclusion

This thesis aimed to uncover what topics Ukrainian banks consider the most important (material) to report in their sustainability documents for the period of 2019 - 2023 years. The field remains under-researched despite its growing relevance. As sustainability becomes increasingly important to both regulatory frameworks and stakeholder expectations, banks need to identify and report on material topics, as the banking sector fuels the development of other fields that significantly impact ESG dimensions (Sardianou et al., 2021). The Ukrainian banking sector, in particular, faces challenges and transformations unique to the region due to the ongoing war, pandemic, and regulatory transitions aligned with European standards. These conditions highlight banks' need to reassess what is actually material and communicate their sustainability impacts in reports.

The theoretical part of the study provided a review of the concept of materiality. It highlighted the term's evolution from a strictly financial principle to a broader sustainability-oriented perspective. The author provided a full definition of the concept based on the previous research. Double materiality and the relationship between its components are explained and synthesized into illustrative figures. The study examined global frameworks and sector-specific guidelines proposed by ESRS, GRI, SASB, and consulting firms to assess how materiality is determined in sustainability reporting. Based on these, the author suggests a unified general guide for materiality assessment and disclosure.

In the empirical part, the study revealed sustainability topics that are currently the most material. “Health”, “Payment”, “Sustainable”, “Training”, and “Entrepreneurs” are consistent over the years and can be considered a starting point for materiality assessment by banks. The research shows the influence of external events on the material topics reported in Ukrainian banks. According to the findings, the COVID-19 pandemic had a relatively low influence on what banks considered to be material. A few new topics still emerged and reached most of the collected reports. The main keyword associated with the COVID-19 influence is “Remote work”. On the other hand, the full-scale invasion of Ukraine caused significant changes in the reported topics, some of which are directly related to the war. Overall, 2022-2023 showed a doubling of material themes compared to the previous years investigated. The event caused both the emergence of new topics and shifts in the context of already existing ones. Results of the research suggest that the influence on the reported topics depends on the severity and scale of some event, which affects stakeholder concerns and risks important to investors, which, in the end, is reflected in the reports.

Ukrainian banks may use the findings to enhance their sustainability reporting practices and focus on materiality topics that lacked attention. Regulators such as the National Bank of Ukraine can benefit from the insights when developing ESG disclosure requirements. Investors and financial analysts may find the analysis helpful for identifying key ESG risks and opportunities in the Ukrainian banking sector. Additionally, international organizations and development institutions focused on sustainable finance may use the findings to support their work in Ukraine’s financial sector.

Several limitations should be acknowledged. First, some banks did not publish sustainability disclosures, leading to potential gaps in data and representativeness. Secondly, since there are no regulations regarding sustainability reporting in Ukraine, there might be a risk of greenwashing. The study does not include direct input from stakeholders (e.g., customers, employees, investors), which limits the ability to assess how well reported material topics align with stakeholder expectations. Finally, the fast-evolving regulatory environment and political situation in Ukraine mean that material topics may shift rapidly, making findings potentially time-sensitive.

As the field of sustainability is quite new and continues to develop, there is a lot of space for future research. In Ukraine, it would be relevant to examine other sectors besides banking and compare whether there are differences in response to major events among sectors. Simply comparing material topics across countries and regions would help understand the local context, assess the risks of running a business or investing in a specific

country. Work can be expanded by directly analyzing stakeholder perceptions and carrying out interviews. Finally, panel research has good potential in materiality assessment studies. As sustainability continues to shape the global financial landscape, materiality assessment will remain a critical tool for ensuring accountability, resilience, and stakeholder trust in the banking sector.

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Appendices

Appendix A.

Guidelines for materiality assessment by different organizations

Guidine	PwC	KPMG	GRI	ESRS	SASB
Step 1	Identify and engage stakeholders	Define purpose and scope	Understand the organization's context	Understand Double Materiality	Establish a foundation
Step 2	Draw up a list of potentially relevant sustainability matters	Identify potential topics	Identify actual and potential impacts	Identify Relevant Sustainability Topics	Choose the right tools
Step 3	Define impacts, risks, and opportunities	Categorize	Assess the significance of the impacts	Engage Stakeholders	Decide where to disclose
Step 4	Assess impacts	Gather information about impact /importance of topics	Prioritize the most significant impacts for reporting	Assess and Prioritize Material Topics	Understand SASB standards
Step 5	Assess financial opportunities and risks	Prioritize material topics	-	Document the Materiality Assessment Process	Assess your readiness
Step 6	Draw up the materiality overview	Engage management	-	Continuous Monitoring and Reassessment	Develop your disclosures
Step 7	Strategic implications	Seek stakeholder feedback	-	Report Material Topics	Enable continuous improvement

Source: compiled by the author based on the mentioned organizations' frameworks

Appendix B.

Coding tree for the analysis

Theme	Category	Keyword	
Environmental	1. Natural environment	a. Climate	
		b. Water	
		c. Biodiversity	
		d. Ecosystems	
	2. Pollution	e. Population	
		a. Pollution	
		b. Waste	
		c. Carbon footprint	
		d. Emissions	
	3. Recycling	e. Energy	
		a. Circular economy	
		b. Sorting	
		c. Recycling	
		d. Paper	
	4. Sustainability	e. Disposable	
		a. Green financing	
b. Sustainable			
c. Sustainable infrastructure			
Social	1. Working environment	a. Working conditions	
		b. Working time	
		c. Employment	
		d. Wage	
		e. Child labour	
		f. Staff support	
	2. Wellbeing	a. Safety	
		b. Health	
	3. Equality in the workplace	a. Gender	
		b. Equality	
		c. Disabilities	
		d. Society	
		e. Inclusiveness	
		f. Women	
	4. Education	a. Training	
		b. Education	
	5. Digitalization	a. Privacy	
		b. Cybersecurity	
		c. Digital banking	
		d. Data privacy	
	6. Other	a. Housing	
		b. Customer rights	
	Governance	1. Management	a. Corporate culture

		b. Corporate social responsibility
		c. Crisis management
		d. ESG
	2. Banking activity	a. Payment practices
		b. Fraud
		c. Corruption
	3. External environment	a. Politics
		b. Continuity
Pandemic-related	1. Pandemic	a. Pandemic
		b. COVID-19
		c. Emergency
		d. Global threats
	2. Work life	a. Remote work
	3. Health and well-being	a. Mental health
		b. Psychological aid
		c. Vaccination
	4. Support and charity	a. Support for Ukrainian society
		b. Support for entrepreneurs
		c. Foundation
War-related	1. War	a. Russia
		b. Invasion
		c. War
		d. Military
		e. 3CY
		f. Global threats
	2. Support and charity	a. Humanitarian aid
		b. Charity
		c. Support for entrepreneurs
		d. Support for refugees
		e. Support for Ukrainian society
		f. Internally displaced persons
		g. Foundation
		h. Veterans
	3. Wellbeing	a. Mental help
		b. Psychological aid
		c. Mental health
	4. Rebuilding	a. Recovery
		b. Reconstruction
		c. Critical infrastructure



Source: Compiled by the author based on ESRS E1-G1, GRI, and content analysis of reports

Appendix C.

Number of reports where sustainability topics were mentioned

	2019	2020	2021	2022	2023
Environmental					
Biodiversity	1	1	1	2	4
Carbon footprint	1	1	2	1	2
Circular economy	1	1	0	2	2
Climate	4	4	4	5	8
Disposable	0	1	1	2	0
Ecosystems	0	3	1	2	1
Emissions	3	2	1	3	5
Energy	11	6	9	12	12
Green financing	1	2	1	1	1
Paper	8	6	5	7	7
Pollution	1	2	0	1	3
Population	6	5	7	11	11
Recycling	5	3	3	4	2
Sorting	3	5	3	2	2
Sustainable	10	11	11	11	13
Sustainable infrastructure	0	0	0	0	1
Waste	6	6	6	3	6
Water	3	3	6	6	7
Social					
Child labour	1	1	0	0	0
Customer rights	0	0	0	1	0
Cybersecurity	3	2	3	5	6
Data privacy	4	0	2	3	2
Digital banking	8	9	13	13	12
Disabilities	5	4	4	4	5
Education	7	7	5	10	11
Employment	8	8	8	10	11
Equality	4	4	4	4	6
Gender	6	6	5	8	10
Health	11	12	14	15	15
Housing	6	3	6	11	9
Inclusiveness	1	1	2	1	2
Privacy	1	1	0	1	1
Safety	9	9	8	14	13
Society	6	5	7	7	10
Staff support	12	9	9	13	11
Training	15	11	7	12	12
Wage	1	2	6	6	7
Women	4	3	3	5	8
Working conditions	5	9	5	4	8
Working time	0	0	0	1	0
Governance					
Continuity	7	6	8	11	11
Corporate culture	5	7	9	5	10
Corporate social responsibility	3	3	5	8	9

Corruption	8	7	7	9	11
Crisis	11	13	9	13	12
ESG	1	1	3	4	8
Fraud	10	8	11	15	14
Payment practices	13	14	10	14	11
Politics	1	1	0	0	0
Pandemic related					
COVID-19	10	14	15	13	7
Emergency	5	4	6	9	10
Foundation	6	7	7	7	12
Global threats	1	0	0	1	0
Mental health	1	0	1	4	7
Pandemic	7	12	11	7	5
Psychological aid	1	3	3	8	10
Remote work	3	8	6	6	6
Support for entrepreneurs	12	11	8	12	11
Support for Ukrainian society	0	0	0	2	0
War related					
Charity	12	9	9	12	10
Critical infrastructure	0	0	3	5	9
Emergency	5	4	6	9	10
Foundation	4	7	7	7	12
Global threats	1	0	0	1	0
Humanitarian aid	0	1	2	7	7
Internally displaced persons	0	0	0	0	1
Invasion	0	0	11	17	18
Mental health	1	0	1	4	7
Mental help	0	0	1	4	7
Military	5	4	11	14	17
Psychological aid	1	3	3	8	10
Reconstruction	8	7	7	9	10
Recovery	10	8	9	12	12
Russia	4	3	10	14	16
Support for entrepreneurs	12	11	8	12	11
Support for refugees	0	0	0	2	2
Support for Ukrainian society	0	0	0	2	0
War	1	2	8	17	16
Veterans	2	2	1		5
3CY	0	0	0	2	3

Notes: no color – mentioned in 0 to 4 reports;  - mentioned in 5 to 9 reports;  - mentioned in 10+ reports

Source: Compiled by the author

Appendix D.

Frequency of sustainability topics mentioned

	2019	2020	2021	2022	2023
Environmental					
Biodiversity	4	3	1	32	4
Carbon footprint	5	1	3	2	9
Circular economy	1	1	0	4	3
Climate	13	27	26	175	57
Disposable	0	1	2	5	0
Ecosystems	0	9	2	12	4
Emissions	14	17	17	29	41
Energy	144	161	76	174	248
Green financing	1	2	1	1	1
Paper	16	19	11	48	27
Pollution	5	5	0	4	3
Population	10	9	23	59	62
Recycling	8	4	7	7	4
Sorting	5	5	13	4	3
Sustainable	111	198	129	342	487
Sustainable infrastructure	0	0	0	0	1
Waste	16	16	8	18	16
Water	14	24	7	14	31
Social					
Child labour	4	4	0	0	0
Customer rights	0	0	0	2	0
Cybersecurity	10	3	3	39	16
Data privacy	4	0	3	21	10
Digital banking	61	71	59	140	131
Disabilities	12	8	14	6	29
Education	18	21	16	17	68
Employment	18	18	19	59	44
Equality	9	10	21	8	11
Gender	13	18	25	45	24
Health	59	67	52	93	83
Housing	11	15	11	38	37
Inclusiveness	2	1	3	2	9
Privacy	1	1	0	11	1
Safety	53	60	27	83	94
Society	17	40	51	69	66
Staff support	101	63	92	168	86
Training	175	109	70	109	178
Wage	1	2	12	10	14
Women	28	36	68	33	40
Working conditions	17	16	8	5	14
Working time	0	0	0	2	0
Governance					
Continuity	17	21	42	106	97
Corporate culture	9	7	12	16	17
Corporate social responsibility	20	87	115	23	32

Corruption	64	76	119	136	140
Crisis management	60	137	107	133	107
ESG	1	2	15	159	65
Fraud	75	66	80	174	89
Payment practices	214	209	245	353	340
Politics	1	1	0	0	0
Pandemic related					
COVID-19	35	283	188	71	18
Emergency	7	6	26	38	34
Foundation	12	19	35	51	47
Global threats	1	0	0	1	0
Mental health	1	0	1	14	28
Pandemic	20	139	100	48	13
Psychological aid	1	4	6	28	36
Remote work	11	25	16	9	6
Support for entrepreneurs	44	53	46	67	74
Support for Ukrainian society	0	0	0	5	0
War related					
Charity	32	43	46	42	56
Critical infrastructure	0	0	9	30	36
Emergency	7	6	26	38	34
Foundation	12	19	35	51	47
Global threats	1	0	0	1	0
Humanitarian aid	0	1	8	22	25
Internally displaced persons	0	0	0	0	2
Invasion	0	0	34	137	120
Mental health	1	0	1	14	28
Mental help	0	0	1	14	28
Military	7	4	103	278	242
Psychological aid	1	4	6	28	36
Reconstruction	27	18	10	19	49
Recovery	52	85	128	211	222
Russia	24	6	72	429	264
Support for entrepreneurs	44	53	46	67	74
Support for refugees	0	0	0	9	3
Support for Ukrainian society	0	0	0	5	0
War	1	2	63	476	510
Veterans	2	2	1	0	51
3CY	0	0	0	5	7

Source: Compiled by the author

Appendix E.

Collocates of “Fraud” in 2022

Collocate	Range	Likelihood
error	9	469.805
misstatement	9	238.047
material	9	213.278
resulting	9	124.307
collusion	9	94.136
forgery	9	94.136
intentional	9	87.850
involve	9	75.127

Source: Compiled by the author

Appendix F.

Comparison of “Charity” collocations in 2019 and 2022

2019			2022		
Collocate	Range	Likelihood	Collocate	Range	Likelihood
event	2	42.575	foundation	3	101.932
chestnut	2	38.097	help	2	44.301
giving	1	31.887	initiative	2	34.542
sport	1	29.589	programs	2	28.579
dinner	1	26.595	sponsorship	2	27.023
saint nicholas	2	26.595	brave	1	25.332
supporting	3	25.083	forces	2	25.053
cardiovascular	2	23.719	cooperates	1	24.147
surgery	2	23.719	medicine	1	22.493
auction	2	23.719	fundraising	2	17.642
down syndrome	1	23.540	campaign	1	17.261
children	3	23.020	organised	1	17.261
volunteering	1	22.065	support	2	16.089
run	1	20.899	medical	1	15.643
medical	1	19.999	armed	1	14.323
disabilities	2	19.999	care	1	14.323
			protez	1	13.509

Source: Compiled by the author

Appendix G.

Jump of “Climate” frequency in 2022

Bank name	Freq
ING Bank	163
Ukrsibbank	7
Credit Agricole	3
OTP Bank	1
Pravex Bank	1

Source: Compiled by the author

Resümee

OLULISUSE HINDAMINE UKRAINA PANKADE JÄTKUSUUTLIKKUSE ARUANDLUSES AASTATEL 2019-2023

Kateryna Makarenko

Käesoleva bakalaureusetöö eesmärk on välja selgitada, milliseid teemasid on Ukraina pangad pidanud aastatel 2019–2023 oma jätkusuutlikkuse aruandluses oluliseks. Uuring keskendub sellele, kuidas olulisuse käsitlus on aja jooksul muutunud ning millised tegurid, sh ühiskondlikud ja geopoliitilised kriisid, on mõjutanud aruandluse fookust. Ukraina pangandussektor tegutseb keerulises kontekstis, mida iseloomustavad sõda, pandeemia taastumine ning regulatiivne ühtlustamine Euroopa standarditega. Seetõttu pakub olulisuse hindamise analüüs väärtuslikku ülevaadet sellest, kuidas pangad reageerivad muutuvale sidusrühmade ootuste maastikule.

Töö teoreetilises osas käsitletakse olulisuse mõiste arengut finantsaruandluse põhimõttest laiemaks jätkusuutlikkusega seotud kontseptsiooniks. Töös esitatakse sünteesitud määratlus kahekordsest olulisusest, tuuakse välja selle kaks peamist komponenti ning võrreldakse juhtivate standardite ja raamistike (nt ESRS, GRI, SASB) poolt pakutavaid lähenemisviise. Lisaks esitatakse soovituslik juhised olulisuse hindamiseks ja selle avalikustamiseks organisatsioonide aruandluses.

Empiiriline analüüs tugineb 91 jätkusuutlikkuse aruande sisuanalüüsile, mis pärinevad 19 Ukraina suuremalt pangalt aastatel 2019–2023. Analüüs näitab, et teatud teemad, nagu „tervis“, „maksmine“, „jätkusuutlikkus“, „koolitus“ ja „ettevõtlus“, esinevad järjepidevalt ning võivad olla aluseks tulevastele olulisuse hindamistele. Samuti ilmneb, et oluliste teemade käsitlus on tundlik väliste šokkide suhtes. Näiteks COVID-19 pandeemia mõjutas mõõdukalt teemat „kaugtöö“, kuid 2022. aasta Venemaa täiemahuline sissetung tõi kaasa märgatava muutuse – oluliste teemade arv aruannetes peaaegu kahekordistus ning paljude varasemate teemade käsitlus muutus sisuliselt. Tulemused viitavad sellele, et sidusrühmade ootused ja investorite tajutavad riskid muutuvad vastavalt kriiside ulatusele ja intensiivsusele.

Uurimistöös kombineeritakse kvalitatiivne sisuanalüüs ja kvantitatiivne tekstianalüüs. Märksõnad valiti ESRS-i ja GRI standardite alusel ning grupeeriti viieks temaatiliseks kategooriaks: keskkond, sotsiaalne vastutus, juhtimine, pandeemia ja sõda. Analüüsi toetamiseks kasutati tekstikaeve tarkvara AntConc, mis võimaldas hinnata märksõnade sagedust ja konteksti erinevatel ajaperioodidel.

Töö tulemused pakuvad väärtuslikke teadmisi pankadele, regulaatoritele, investoritele ja rahvusvahelistele organisatsioonidele. Pangad saavad parandada oma ESG-andmete avalikustamise kvaliteeti, käsitledes paremini seni alaesindatud teemasid. Reguleerivad asutused, näiteks Ukraina keskpang, võivad uuringu tulemusi kasutada jätkusuutlikkuse aruandluse juhendite täiustamiseks. Investoritele ja analüütikutele võimaldavad tulemused paremat ESG-riskide ja -trendide tuvastamist, samas kui rahvusvahelised organisatsioonid võivad kasutada neid andmeid Ukraina kestliku rahastamise edendamisel.

Töö piiranguteks on andmete ebatäielikkus – mitte kõik pangad ei avaldanud jätkusuutlikkuse aruandeid, mis võib vähendada tulemuste esinduslikkust. Kohustusliku aruandluse puudumine võib samuti suurendada nn rohepesu riski. Lisaks muudab kiiresti muutuv regulatiivne ja poliitiline kontekst Ukrainas tulemused ajaspetsiifilisteks.

Tulevased uuringud võiksid laiendada fookust sidusrühmade vaadetele, võrrelda olulisuse hindamist erinevates riikides ja sektorites ning uurida muutusi pikema aja jooksul. Kuna jätkusuutlikkus muutub finantssektoris järjest olulisemaks, jääb olulisuse hindamine keskseks läbipaistvuse, aruandekohustuse ja usalduse suurendamise vahendiks pangandussektoris.

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