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THESIS SUMMARY

The magnitude and impact of environmental accounting over accountants and stakeholders

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Thesis Introduction

The environmental responsibility of the companies has been in the attention of the media and stakeholders in recent years. The environmental performance of the companies started to be measured because of different environmental hazards that occurred, as biodiversity degradation, greenhouse gas (GHG) emissions or climate change (Parker, 2005; Solovida and Latan, 2017). The financial performance is not sufficient nowadays to measure the performance of companies, therefore the accountants and the accounting profession need also to be aware of these aspects in the reporting process. Companies started to elaborate sustainability reports/environmental reports/annual reports in which they make disclosure about different environmental aspects (materials recycling, energy, water and air pollution, biodiversity, climate change, GHG emissions).

As a consequence of the increasing demand for environmental information, stakeholders started to focus more on environmental performance and environmental information disclosed by companies and therefore encouraged managers to focus more on it (Rodrigue et al., 2013a; Solovida and Latan, 2017).

In order to meet the requirements from stakeholders, companies started to improve their environmental performance and disclose more environmental information by implementing an environmental strategy and using an environmental management accounting (EMA) system (Lisi, 2015; Solovida and Latan, 2017). However, the reporting of environmental performance remains voluntary in some countries, while for others there is a low level of disclosure (emergent countries – e.g. Romania), therefore is not clear if this two practices can improve the environmental performance of the companies (Clarkson et al., 2008; He and Loftus, 2014).

Accounting responds to “concerns that economic systems (embedded in systems of cultural expectations) create outcomes that undermine the ecological systems on which human (and other species) prosperity rests” (Bebbington and Thomson, 2013, p.281).

The social and environmental accounting practice has evolved over time. At the beginning, before 1960, “social accounts” have fallen to other disciplines for examination and exploration (Eugenio et al., 2010). Then, between the years 1960-1970, social and environmental accounting was defined as a research area which developed through corporate social responsibility (CSR) and explored relationships between accounting, organizations and society (Parker, 2005). Afterwards, Adams (2004) suggests that in the 1980s there was a domination of labour concerns and an increase in social, environmental and ethical disclosure. Finally, by the 1990s, Gray (2002) highlighted that there is a domination of environmental issues over labour concerns and the disclosures are not so focused on social matters, but rather on environmental questions.

Different studies demand for further studies in the environmental accounting field (Alewine, 2010; Dagiliene and Sutiene, 2019), as sustainable reporting accounting (includes environmental accounting) is requested from companies by stakeholders. Moreover, other studies demand for more implication of accountants in the environmental reporting process and in the sustainability initiatives (Egan and Tweedie, 2018).

Research Methodology

For the subject development, we have performed both quantitative and qualitative research. In each chapter, we have exposed the research methodology, methods and techniques through which we have proposed to respond to our research objective and research questions.

In the first chapter, we have performed an extended literature review from general to specific concepts related to accounting, financial reporting and connections to environmental reporting. Furthermore, we have advanced other specific concepts related to environmental reporting (e.g. sustainability accounting, CSR). To set the proper boundaries, we have considered for analysis scientific books, book chapters and articles published in academic journals. Afterwards, we have downscaled to general and specific regulations related to environmental reporting. To identify the past regulations related to environmental reporting we have consulted books, book chapters and articles published in academic journals, while for current regulations, we have considered most online sources related to regulations (BIG4 Audit companies’ websites, national and international regulators).

In the second chapter, we performed in the first part a meta-analysis for environmental disclosure by analysing studies from scientific books, book chapters and articles published in academic journals. The classification of studies was organized worldwide by regions, afterwards by developed and emergent economies and then, downscaled to a specific emergent economy (Romania). Afterwards, we analysed dependent and independent variables as influential factors of environmental disclosure. For the dependent variables, we have examined layouts used for the disclosure index, while for independent variables we have analysed influential factors. Both analyses were performed on studies published in scientific articles. Based on this analysis, in the second part of this chapter, we have performed an empirical analysis of a European emerging context (Romania). We have selected as a

methodology for this analysis, the content analysis for data collection and the Qualitative Comparative Analysis (QCA) for the empirical analysis. The content analysis was applied for the data collection from environmental, sustainability, annual, or administrator's reports by case. This data was centralized for the outcome (dependent variable) and conditions (independent variables). Based on the data collected for the outcome and conditions, we have applied for each year under our analysis (2017-2020), the following steps from QCA: calibration (setting values between 0, 0.5 and 1 for outcome and conditions), necessary condition analysis (determining which conditions fulfill the necessary and sufficient condition criteria) and fuzzy truth table algorithm (identifying the combination of conditions which determines the outcome).

For the third chapter, we have performed in the first part a literature review of the contributions of the accounting profession to sustainability and environmental reporting, respectively the implication of accountants in sustainability and environmental reporting. We have performed the literature review to acknowledge methodologies and make a state-of-the-art for other developed or emerging contexts. For the second part, we have developed a case study regarding the environmental reporting implementation, involvement of accountants in the process and audit assurance for a Romanian company from an environmentally sensitive industry. To construct the case study, we have first analysed the environmental reports, the climate change and decarbonisation strategy and the integrated health, safety, security and environment statement of the company. Afterwards, we created an interview instrument consisting of 12 questions related to environmental reporting implementation, the implication of accountants in the environmental reporting process and audit assurance which was applied to the company subject' employees. The interviews lasted between 13-30 minutes and the responses were coded through MAXQDA24 software.

Chapter 1. Conceptual and regulatory boundaries

In **Chapter 1** of this thesis, we have performed an extensive literature review on environmental accounting discipline by setting boundaries from general to specific concepts regarding environmental accounting; analysing past, present and future accounting regulations and ending by researching other specific environmental regulations (environmental certifications). The literature review developed sets boundaries on the environmental accounting discipline.

In the first part it makes a delimitation between general concepts (e.g. accounting, financial reporting and disclosure), where accounting is considered to be an important measurement for business activities (Çalışkan, 2014) and a “process of identifying, measuring and communicating economic information to permit informed judgements and decision by users of information (Sterling, 1967, p. 104). Then, as environmental accounting is part of the sustainable accounting together with social accounting, it downscales to specific concepts such as sustainability accounting, CSR and environmental reporting. Then, it sets the boundaries from environmental reporting to connection with stakeholders, the impact over decision of stakeholders and highlighting other notions and concepts related to environmental accounting.

In the second part, the research focuses on the regulations that appeared in the discipline. We have identified various international mandatory and voluntary regulations (GRI standards, Triple Bottom Line Reporting, Environmental accounting externalities, Value Reporting Foundation, EU Directive 95/2014, CSRD and IFRS regulation) and other specific voluntary regulations (ISO certification and EMAS certification) from where we denoted an abundance of regulations that raises the concerns among companies on which standard to follow. As the regulation processes started in 2021 to be in a continuous change (integration of Integrated Reporting and SASB under Value Reporting Foundation and appearance of GSSB standards on sectors), it started a concern in literature on which standard to follow. As there are various standards, with various focuses (Stolowy and Paugam, 2023), is difficult to set convergence between them as there are a diversity of reporting requirements between international standard setters, the most influential being EFRAG, ISSB and SEC. Moreover, as there is an abundance of state regulations and voluntary initiatives, it is difficult for a particular initiative to be attributed to state (legislative and executive) or non-state actors (epistemic communities, institutional entrepreneurs, carriers, regulators and reporters) and to conform to characteristics of hard or soft law (Larrinaga and Senn, 2021). The authors suggest that various European countries made regulations on non-financial reporting by relying on mechanisms (GRI guidelines and sustainability assurance) produced by non-state actors after the transposition of the EU Directive 95/2014 into the national regulation.

Chapter 2. Environmental disclosure. Evaluation of the current status of Romania

In **Chapter 2** of this thesis, we have investigated the environmental disclosure of Romanian companies for the period 2017-2020 during the enactment of the EU Directive 95/2014. In order to reach our objective, we have performed in the first part a literature review on environmental disclosure for non-European and European countries, developed and emergent contexts and downscaled to a particular emergent context (Romania).

Africa remains an underexplored area of research where studies focus more on quantitative research, rather than qualitative. Only in South Africa exists mandatory regulation for disclosing environmental information, therefore only companies listed on the stock exchange have a mandatory regulation on disclosure. However, companies from pollutant industries from Africa disclose voluntary environmental information in their reports due to public pressure. There are different environmental problems as deforestation, biodiversity, extinction of threatened species, environmental degradation, pollution, water spills and other social aspects caused by inactions and actions of different stakeholders (people, governments, corporations), for which research can be conducted to make them more visible and find policy solutions. As a further direction of studies, for more developed countries (e.g. South Africa) would be interesting to analyse if the regulation for companies listed on the stock exchange can be adaptable to European regulations and stimulate companies to disclose more environmental information. For underdeveloped countries, researchers can consider the Sustainable Development Goals (SDGs) and their implications at the global and local level to develop environmental accounting research.

In the Asian context, environmental disclosure was more explored by researchers than in the case of Africa. China, Malaysia, Singapore and Japan implemented in their national regulation different developments regarding environmental regulation. The disclosure of environmental information came as a requirement from local governments and local stock exchanges. Even though there were pressures from institutions, there is still a low level of environmental disclosure in the reports in the Chinese context. Further directions of studies in the Asian context can go further to analyse for developed and emerging Asian countries, similarities and differences regarding environmental disclosure practices. As it was mentioned above the implication of local governments and local stock exchanges in the environmental disclosure process, another direction of future research could focus on the implication of different stakeholders (auditors, managers, accountants) on the quality of the environmental disclosure process.

For the MENA region, in the Levant area, there are countries where environmental regulation exists (Jordan), countries where does not exist (Syria and Lebanon) and countries where does not exist, but there is encouragement from the academic area for this kind of practices towards business companies (Palestine). Overall, it can be observed that Jordan (a more developed country) has also gained more attention from researchers than Palestine, Lebanon and Syria (emerging countries). The GCC area was more studied by researchers than the Levant region, also in this area the countries are divided into developed (Kuwait, Saudi Arabia and UAE) and emerging (Bahrain, Oman, Qatar and Iraq). The main studies are concentrated on the whole region, rather than on individual countries. There are environmental regulations at the national level for the developed countries (Kuwait, Saudi Arabia, UAE), while for the emerging countries there does not exist a set of standards for environmental regulation. The last category North Africa (Arab countries) is characterised as being resource-poor. There are very scarce studies regarding environmental disclosure in comparison to other regions. The sector that is mostly analysed by researchers is the oil and gas industry. The environmental information provided by companies in their reports is voluntary, as there does not appear as a mandatory regulation for either of the countries from the region. In this context, as well as for other underdeveloped African countries, a future area of research can consider the implication of SDGs at global and local levels for the development of environmental accounting research.

For the North American context, Canada and the United States are the main countries in which researchers concentrated their studies regarding environmental disclosure. For this region, we have found different types of studies with diverse methodologies and on a variety of subjects. However, researchers emphasized more with studies on legitimacy theory, further studies could research also on other theories, not limited to accounting. Both countries have their regulations and agencies to which companies comply, even though there is not a convergence between the countries regarding the regulation. Moreover, what draws our attention when analysing the studies for this region, as we have searched until now, is the exclusion of the other large economy (Mexico) in the environmental disclosure research. As further studies, the research could investigate by comparing the environmental disclosure for all North American developed countries (Canada, United States and Mexico). Another

direction of future research could go further and make an analysis also for underexplored areas (Caribbean islands and Greenland).

For the Pacific regions, the researchers focused their studies more on Australia and New Zealand. Companies from this region tend to disclose environmental information based on political exposure and listing on the stock market. As we have researched so far, there is no mandatory regulation for these countries. Further studies could investigate different specific directions of environmental research (sea-level rise, ocean acidification, climate crisis). For other islands around the Pacific regions, studies are scarce and we could not identify studies more visible internationally, therefore further studies could investigate specific direction of environmental research or analyse the disclosure of environmental information.

For the South American context, the studies related to environmental disclosure are very scarce as we have researched so far, therefore it is difficult to set conclusions on what was researched until now and which are further directions. However, among the two studies that we have found, we can argue that there is still an emerging market for environmental disclosure, where companies disclose this type of information voluntarily. Further studies could investigate specific environmental topics or disclosure of environmental information for companies from a country or by comparison with other countries.

The European context has the highest number of studies among all regions; we have tried to concentrate on some of the studies that we consider most relevant for some of the developed countries. One important aspect for European countries was the implementation of the EU Directive 95/2014, which made mandatory environmental disclosure in the reports for companies with more than 500 employees; therefore all European countries converged to this directive.

For developed contexts, we have identified studies for companies when the EU Directive 95/2014 did not come into the act. The studies revealed a low level of environmental disclosure, companies that were not prepared to disclose negative environmental information or accountants that did not have sufficient knowledge for this type of reporting. What also draws our attention is the early period since we have found studies regarding environmental disclosure. In developed countries, environmental disclosure is a current practice of companies, for which studies have been performed for over 30 years. Therefore, further directions of studies can focus on the environmental management systems of companies or how companies adapt environmental disclosure in case of an environmental incident.

For emerging contexts, we have identified a lack of national regulation for environmental disclosure. There are not so many studies performed as in the case of developed countries and only after a certain period, researchers focus on these countries. However, there is a variety of methodology instruments used by researchers for analysing these contexts. Further studies can analyse environmental disclosure in emerging contexts by highlighting particularities of disclosure or influences of non-disclosure for companies.

As a particular emergent context, Romania is an ex-communist country (Albu et al., 2021) with no background on environmental disclosure, where accountants consider mainly

relevant just the financial aspects and until the appearance of the EU Directive 95/2014, there was no mandatory regulation for companies on disclosure of environmental information. As part of the European emergent countries, Romania complies with the EU Directive 95/2014 which was transposed by the Act of Ministry of Public Finance OMFP 1938/2016.

The second part presents an empirical study for an emerging context (Romania) for the period 2017-2020 (after the enactment of the EU Directive 95/2014) regarding the environmental disclosure of companies listed at Bucharest Stock Exchange (BVB) and companies are reporting following GRI standards. The majority of studies employed regression models for determining the environmental disclosure level and its correlation with other variables (Clarkson et al., 2008; Monteiro and Aibar-Guzman, 2010a; van de Burgwal and Oliveira Vieira, 2014). In this research, we have considered the fsQCA methodology which analyzes data sets that are too large for cross-case analysis and too small for linear regression analysis (Ragin, 1987). Furthermore, as it is based on configuration approach, the environmental disclosure can also be asymmetric and follow complex paths (Ragin, 2009; Schneider and Wageman, 2012). Also, for smaller samples as ours, the QCA methodology is recommended (Ragin, 2000).

The results of the analysis revealed that for companies that are reporting following GRI standards disclose more environmental information than those that are listed on the stock exchange. Therefore, companies with more resources will disclose more information, which is in line with the findings of Qiu et al. (2016). Another explanation is that companies from environmentally sensitive sectors have the public pressure to disclose more information, while other companies have the pressure from mandatory regulation (EU Directive 95/2014) to disclose this information. However, there are companies with below 500 employees for that the environmental disclosure remains voluntary and for them, the level of environmental disclosure remains low or they disclose just general aspects, as not having an incentive to disclose this type of information.

Moreover, the results show an increased level of disclosure of environmental information for companies from the following sectors: Energy and Industrials as they are more interested, given the fact that they are also part of the pollutant sector.

Chapter 3. Environmental Reporting and Accountants. The case study of Romania.

In **Chapter 3** of this thesis, we have investigated the process of environmental reporting implementation and implication of accountants for a Romanian company. On the first part, we have made a literature review regarding the accounting profession and connection to environmental reporting, environmental strategy and environmental management accounting, respectively highlighting previous studies related to the implication of accountants in sustainability and environmental reporting for both developed and emergent contexts. Based on the studies identified regarding the involvement of accountants in sustainability and environmental reporting, we have observed a lack of involvement of professional accountants, a low interest of managers and the lack of mandatory regulation can determine a

gap in the environmental reporting (Jaggi and Zhao, 1996). Then, in developing countries, there is an absence of environmental reporting and environmental management accounting because of a lack of competence and voluntary regulation (Lodhia, 2003). Even, in developed countries, accountants are not interested in being involved and designing interpretive schemes, sub-systems or design archetypes for environmental reporting if they do not see the purpose of elaborating them (Monteiro and Aibar-Guzman, 2010b). Others consider non-accountants more capable of identifying decision-useful accounting solutions regarding environmental challenges (Egan, 2018).

On the other hand, literature analysed the contributions that accountants can bring to environmental reporting and sustainability by developing standards at national and sectorial levels, establishing connections between financial and non-financial values of corporations, reporting interactions and results of the activities of corporations related to humankind and planet, make corporate sustainability traceable and manageable and having a role in educating and informing related parties (Çalışkan, 2014). Other studies mention that accountants want to get involved in the environmental reporting process, but they need a clear institutional and regulatory authorities' intervention and an international influence (Kuasirikun, 2005; Islam and Dellaportas, 2011), without mentioning if they want to get involved in designing standards.

Accountants are also viewed inside companies with an intermediary role between higher management and sustainability managers (Schaltegger and Zvezdov, 2015). The engagement of accountants in environmental reporting depends also on the engagement in economic-organizational activities and engagement with novel tasks and professionals (Egan and Tweedie, 2018), as well as training on environmental reporting to perform (Egan, 2018; Egan and Tweedie, 2018; Krasodomska et al., 2020). However, there are various constraints and adaptations between professional habitus, capital and organizational field of accountants and strategies to engage accountants connected to these factors (Egan and Tweedie, 2018) as well as reluctant or eager attitudes of accountants towards environmental reporting (Krasodomska et al., 2020).

In the second part, we have performed a case study on a Romanian company from an environmentally sensitive industry. The name of the company was labelled as "GasEnergy" to preserve anonymity. The selected company is part of the energy sector, listed at BVB and their reporting is assured by a BIG4 company. Starting with the implementation of the EU Directive 95/2014 in 2017, the company has begun to disclose environmental information as non-financial information in the administrators' report. Afterwards, in 2020, GasEnergy started to implement sustainability reports where they delegated one employee from each department to be part of the reporting process and afterwards delivered the information to the reporting department. For the financial part, we have highlighted the position on the sector by turnover, total assets and number of employees and number of shareholders. For the non-financial part, we have highlighted different strategies related to environmental aspects as decarbonisation and climate change, as well as integration management systems and EU Taxonomy. The next step was to construct an interview sample and instrument with 12 questions related to environmental reporting implementation, involvement of accountants and

audit assurance which was applied to employees of the company. The questions were applied to 10 employees from various departments.

For the elaboration of environmental reports, we have acknowledged that different departments from the board of directors until reporting, communication, accounting, finance, budget strategy, environmental, finance-budget and financial planning were involved. From our point of view, the appropriate working team, depending on the resources of the company, would be composed of accounting, marketing, legal and procurement, in the absence of environmental and reporting departments. In this case study, it can be highlighted the existence of both environmental and reporting departments. The environmental department collects data and sends the information to the strategy department, which is considered the reporting responsible and makes the final disclosure after the approval of the board of directors.

Regarding the resistance to change and tools implemented for transition on environmental reporting implementation, the responses highlight the impression management that companies tend to make in front of externals to preserve their image, which came in accordance with (Cho et al., 2012a) and at the same time they try to build a reputation façade (Cho et al., 2015b) in order not to showcase internal problems in front of external people. We agree that was a job task implemented as a legal requirement and there were sessions and meetings on working groups; however, we consider that there were employees who did not agree with these changes and were reluctant to implement the environmental reporting.

In the literature, were identified various studies regarding the involvement of accountants in environmental reporting. In this study, we aim to highlight that the preparers of environmental reporting should be a teamwork that implicates various departments. In this particular case, the elaboration of the reports is made by the strategy department which collects information from the accounting department; environmental, budget and strategy, economic, budget and financial forecast and unifies them into a single report. In this case, the accounting department was not so involved at the moment of disclosing environmental information in administrator's report, but started to get more involved with the implementation of the environmental report. The implication of accountants was to allocate data on cost centres for recognition, calculate net turnover, performing factorial and taxonomy analysis to measure how "green" is the company. From the accounting department's point of view, the involvement in the environmental reporting process is considered a job task and they are implicated based on the requests received and collaboration with other departments. Based on the responses received, the work behind can reflect the reality of the situation, imply impression management (Cho et al., 2012a) or use the reputation façades from organized hypocrisy to look responsible in front of stakeholders (Cho et al., 2015b).

Environmental reporting is important for companies listed at BVB and for those reporting following GRI standards, as it is considered a way to create a better image in front of their stakeholders. The stakeholders interested in this type of reporting can vary from companies from the financial sector, banks, shareholders; organizations at which the company is

affiliated, potential investors, NGOs, communities or public institutions. As they have various and diverse demands, the subject company discloses the information relevant to them through the website of the company, media and BVB website and for more specific requests through email. In the end, it sets conclusions and possible generalization for the absence of communication of environmental aspects from the reports.

Final Conclusions

The purpose of the current thesis was to investigate the status of environmental accounting in Romania during the enactment of the EU Directive 95/2014. We have considered it relevant as the disclosure of non-financial information (including environmental) became mandatory for a certain category of companies. Furthermore, Romania is considered an emerging context, where companies and accountants are involved in the disclosure of financial information, while non-financial information is considered a voluntary aspect. The present chapter aims to summarize the overall conclusions of the thesis, the limits of the research and future directions of the study. Finally, it summarizes the contributions of the thesis to the literature.

For a better understanding of the practice of environmental accounting, we have used mostly the terms environmental disclosure in Chapter 2 and environmental reporting in Chapter 3.

Chapter 1 summarizes an extensive literature review on the environmental accounting discipline by setting boundaries from general to specific concepts regarding environmental accounting; analysing past, present and future accounting regulations and ending by researching other specific environmental regulations (environmental certifications). The literature review developed in this way sets boundaries for the environmental accounting discipline. Firstly, it makes a delimitation between general concepts (e.g. accounting, financial reporting and disclosure), where accounting is considered to be an important measurement of business activities (Çalışkan, 2014). Then, as environmental accounting is part of sustainable accounting together with social accounting, the current thesis sets boundaries between specific concepts (e.g. sustainability accounting, CSR, environmental reporting). Furthermore, the research on the regulations that appeared in the discipline and started to be in a continuous change starting in 2021 raises the concern on which standard to follow. As there are various standards, with various focuses (Stolowy and Paugam, 2023), a clear delimitation between them proved to be necessary.

The limits of the research in the case of Chapter 1 are related to the continuous changes in regulation that are occurring in the environmental accounting area. The abundance of state regulations and voluntary initiatives that started with 2021 denotes a lack of convergence between them.

Future directions of research could investigate differences or convergence between regulations. For the Development of Sector Standards approved by GSSB for more consistency and clarity in reporting, there can be performed analysis to highlight the disclosure of environmental information before and after the implementation of the standards.

Chapter 2 analyses the factors and the level of environmental disclosure for Romanian companies for the period 2017-2020 during the enactment of the EU Directive 95/2014. This chapter is composed of two parts. The first part develops a meta-analysis literature review for spanning studies on environmental disclosure by regions, developed and emergent economies and downscaling to a European emerging context (Romania). This study enriches previous studies made on regions (Al-Hamadeen, 2021; Chavez and Romi, 2021; Denedo and Egbon, 2021; Gomez-Villegas, 2021; Johansen, 2021; Leung, 2021; Scobie et al., 2021), respectively on regions and countries (Fifka, 2011) by focusing on the methodologies, sample and industries used previous on environmental disclosure studies. The second part is an empirical analysis where we investigated how different factors, individually or in combination, influence environmental disclosure. The sample considered for our analysis are companies listed at BVB and companies reporting following GRI standards. Based on different layouts that we have examined, we have chosen to construct our layout as a combination of other layouts that we have previously examined (Ienciu, 2009; Szadzieska et al., 2018) and considering the EU Directive 95/2014 and GRI (2016). For the independent variables, we have considered five factors for our analysis. For the empirical analysis, we have decided to explore the application of fuzzy-set Qualitative Comparative Analysis (fsQCA), which presents different results than traditional statistical approaches (multiple-linear regression, OLS, panel data). However, different perspectives lead to demonstrate that diverse conditions, in some cases opposite, still can lead to the outcome, respectively the disclosure of environmental information by Romanian companies.

The results show that the companies that disclose more information on environmental aspects are the ones from the following sectors: Energy and Industrials as they are more interested, given the fact that they are also part of the pollutant sector.

One limitation of our study is the scarce information provided by Romanian companies in their annual and sustainability reports. There are a few companies that are both listed at the BVB and elaborate the reports following GRI standards. The content of the information provided in their annual reports does not contain very much information in some cases, while in the others is mentioned strictly the indicator and a certification without providing more specific environmental information on monetary and quantitative terms. Moreover, some companies just mention that they are environmentally compliant and post the date and number of the environmental certification.

As future directions of research, based on the new CSRD (2021), there can be performed comparison studies before and after the enactment of the directive to investigate environmental aspects (Materials, Energy, Water, Biodiversity, Emissions, Effluents and Waste, Environmental Compliance, Climate Change) or longitudinal studies on companies to highlight the effects and improvements caused by this directive on the disclosure of environmental information provided by Romanian companies. Moreover, by the current regulations that GSSB performs on each sector to set specific regulations (see Chapter 1), further studies can highlight similarities, differences and increases in environmental disclosures for companies from different sectors over a while, by going further on specific sectors.

Chapter 3 investigates the implementation of environmental reporting and the implication of accountants at the company level. In the first part, we have performed a literature review on the contributors to sustainability and environmental reporting initiatives by accounting profession, environmental strategy and environmental management accounting. Furthermore, we have analysed studies that investigated the implication of accountants in sustainability and environmental reporting. In the second part, we have constructed a case study at the company level for a Romanian company from an environmentally sensitive industry. Inside the case study, we have applied an interview guide of twelve questions related to environmental reporting implementation, the implication of accountants and audit assurance.

Through this research, we attempted to enrich the environmental reporting literature on the Romanian context (emerging) by constructing a case study and organizing interviews inside a company from the energy sector, which is considered an environmentally sensitive industry. This adds to the current literature provided on this particular emerging context (Ienciu, 2009; Jindrichovka and Purcărea, 2011; Dumitru et al., 2017; Albu et al., 2021). Our study differentiates by focusing only on environmental reporting, without social reporting and considering the company and employees' perspectives on environmental reporting.

As a limitation, the study analysed a single company from an environmentally sensitive industry based on the reports disclosed and their shift from disclosing environmental information into administrator's reports to environmental reports. Another limitation is related to the low number of accountants that we were able to take the interview for various reasons. On the other hand, the head of the accounting department at the moment of taking the interview had 3 months of activity inside the company and did not know the answers to some of the questions. Another limitation comes from the fact that state-owned enterprises are reluctant to discuss more detailed the information that they provide and some of them were not even open to having more in-depth analysis (e.g. interviews, surveys) than the strict information provided through their public reports.

Further studies can be analysed by comparing companies listed at BVB or companies reporting following GRI standards and providing more information regarding the involvement of accountants in the environmental reporting process and appropriate working teams in charge. Moreover, starting with the enactment of CRSD in 2024, further studies can also analyse by comparison the audit assurance for companies. Finally, a further investigation can provide a comparison between one company from Romania and a company from another European emerging context.

Thesis Contribution

The academic debate on environmental accounting has been present since the 1990s in the literature; different authors investigated it together or separately from social accounting. Nowadays, emerging countries are exposed more to environmental accounting challenges such as biodiversity loss, climate change or water pollution. With this in mind, the present chapter aims to highlight the contribution of the current thesis to the academic debate on environmental accounting and reporting.

The extensive literature review developed in **Chapter 1** of this thesis covers a large period and provides past, current and future trends in environmental accounting and contributes to the environmental accounting literature by the focus on general and specific concept boundaries. Moreover, since 2021 the regulations went through a process of changes to help users better elaborate environmental reports, this study attempted to have an up-to-date analysis of both voluntary and mandatory regulations to acknowledge general and specific standards and guidelines (mainly at the European level) that companies take into consideration for the disclosure of environmental information. Therefore, by the boundaries on general and specific concepts and by the current updates on the regulations, the current literature review contributes to the general literature by setting the past, current and future trends in the discipline.

The meta-analysis literature review developed in **Chapter 2**, contributes to other similar studies in the field, focusing only on the environmental disclosure studies worldwide to acknowledge methodologies, samples and industries used. Furthermore, our study contributes by showcasing studies not only by regions and countries worldwide, but also considering classifications as developed and emergent, as well as specific country regulations and regulations worldwide. Finally, it analyses for a specific emerging context (Romania) the main studies developed in the domain.

Furthermore, under the methodological area for empirical analysis, the present study enriches the environmental disclosure literature being one of the few studies adopting the set-theoretical method. The adoption of Qualitative Comparative Analysis represents a significant contribution to accounting studies. In this case, investigates how different characteristics such as GRI reporting, quotation on the stock market, size, audit assurance or industry sensitivity contribute to the occurrence of an outcome, respectively environmental disclosure. By adopting the fuzzy-set Qualitative Comparative Analysis, the empirical contribution of our thesis is greater, as it allows the researcher to analyse various aspects that determine environmental disclosure. The other empirical methodology version, mainly crisp-set Qualitative Comparative Analysis, allows researchers to analyse only opposite characteristics without a given condition.

As a contribution of this thesis, the Qualitative Comparative Analysis is a methodology coming from other areas such as sociology or marketing, which brings a different perspective to understanding environmental disclosure. Based on the economic theories that were behind this study, legitimacy theory and stakeholder theory, we proved that organizations disclose environmental information to create a better image in front of their stakeholders and legitimize themselves in society.

Moreover, by considering the case study methodology in **Chapter 3**, this research contributes to the qualitative studies performed in this area in the Romanian context (Ienciu, 2009; Jindrichovka and Purcărea, 2011; Dumitru et al., 2017; Albu et al., 2021), being one of the few studies that focused on the organization level, considering the company and employee perspectives. Another contribution of the research is related to the topics covered during the

interview: environmental reporting implementation, involvement of accountants and audit assurance, being one of the few studies considering all these topics for a case study approach.

Finally, the entire thesis contributes to the literature by showcasing a particular emergent context on environmental accounting in both quantitative and qualitative ways, as well under the form of an external and internal analysis.

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