

Environmental Accounting in Albania: Current Public Disclosure and the Reality Behind Closed Doors

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Abstract

Environmental accounting (EA) has become an essential tool for incorporating environmental costs and performance into corporate reporting and decision-making. This paper analyzes the status of EA in Albania, a developing economy and EU candidate, by evaluating the public disclosure of environmental information and the internal practices of EA within enterprises. A content analysis was performed on the websites and financial reports of 100 big Albanian enterprises, in conjunction with a structured survey of 71 managers. Results indicate a substantial disparity between outward reporting and internal practices. Public environmental disclosures are scant; only a limited number of companies release quantitative or financial environmental data, and almost none produce independent sustainability reports, indicating a "gray" reporting environment. Survey results reveal that approximately one-third of organizations have initiated internal environmental accounting practices or sustainability initiatives, albeit without external communication. Significant obstacles hindering the wider implementation of Environmental Accounting encompass constrained financial resources, the absence of regulatory mandates, inadequate stakeholder pressure, and minimal awareness or expertise in sustainable accounting, as noted by prior literature in developing countries. Analyzing the results via stakeholder, legitimacy, and institutional theories indicates that the lack of external pressures and obligatory frameworks has resulted in complacency in disclosure, notwithstanding increasing internal awareness. The research underscores an

immediate necessity for enhanced regulatory frameworks, capacity development, and stakeholder involvement in Albania. In aligning with the EU's CSRD (2022) and global reporting requirements, it is imperative to bridge the divide between public reporting and private practice to enhance corporate transparency and accountability.

Keywords: Environmental Accounting; Sustainability Reporting; Developing Countries; EU Corporate Sustainability Reporting Directive (CSRD); implementation barriers

Introduction

Sustainable development has emerged as a global necessity due to the escalating threat of environmental degradation to economic and social welfare. Business entities are recognized as significant contributors to environmental degradation and essential participants in implementing solutions. The discipline of environmental accounting has developed to enhance conventional accounting by integrating environmental costs, obligations, and performance indicators into financial reporting and managerial decision-making. Essentially, EA offers a framework for firms to assess and disclose their environmental impacts in both monetary and non-monetary terms, thereby improving transparency and stewardship.

The necessity for environmental accounting, both theoretically and practically, is well-established. Notwithstanding its acknowledged significance, the practice and disclosure of environmental accounting exhibit considerable variation globally. A substantial body of literature has examined why certain firms adopt EA while others fall behind. Several theoretical frameworks have been employed to understand these practices. Stakeholder theory asserts that companies respond to the expectations and pressures of their stakeholders, such as investors, regulators, consumers, employees, and communities, by disclosing pertinent environmental information and improving performance.

Developing countries typically experience weaker external influences on EA, and Albania is no exception. The corporate sector in Albania is in the nascent stages of its sustainability journey, and anecdotal evidence indicates that environmental disclosure by Albanian entities is limited (ICG Research Team, 2020). Until the late 2010s, there was almost no issuance of independent sustainability reports by Albanian companies. A notable exception was a cement manufacturer, part of an international conglomerate, which published an audited sustainability report in accordance with Global Reporting Initiative (GRI) standards.

The financial reporting framework in Albania has not officially incorporated environmental reporting, and previous studies indicate that

Albania's accounting standards lack specific mandates or structure for environmental disclosure (Jupe et al., 2014; Biracaj et al., 2014). The regulatory deficiency, coupled with insufficient stakeholder awareness, indicates that numerous companies may see environmental information as confidential or immaterial, resulting in diminished openness. Nonetheless, activities conducted behind closed doors, such as whether companies monitor environmental costs internally or implement sustainable practices without public disclosure, remain mostly ambiguous due to insufficient prior research.

Given Albania's bid for European Union (EU) membership, the matter of environmental accounting and reporting has acquired heightened significance. Compliance with EU requirements, including the recently enacted Business Sustainability Reporting Directive (CSRD, 2022), would necessitate significant enhancements in business transparency regarding environmental, social, and governance (ESG) issues. This establishes both an expectation and an opportunity for Albanian organizations to enhance environmental accounting procedures (European Commission, 2025). However, a deficiency persists in both the research and practice: to what degree are Albanian enterprises presently involved in environmental accounting, whether publicly or privately? What variables are impacting their behavior?

This study seeks to address the gap by exploring “Environmental accounting in Albania: actual public reporting and the reality behind closed doors.” While prior research acknowledges that environmental accounting practices in developing countries are typically hindered by weak institutional pressures, limited stakeholder engagement, and regulatory deficiencies (Belal & Owen, 2007; Hahn & Kühnen, 2013), little attention has been devoted to explicitly quantifying or comparatively analyzing these conditions in the Albanian context. Although literature identifies broad patterns in developing economies (e.g., limited disclosure due to resource constraints and inadequate regulatory frameworks) (Ali, Wilson, & Husnain, 2022; Belal, 2015), a direct comparative analysis highlighting Albania's unique situation remains absent. By examining both external disclosures and internal practices within Albanian firms and juxtaposing these findings against data and established literature from comparable developing nations, this research aims to clearly quantify and illustrate the distinct nature of Albania's environmental accounting landscape, thus providing a richer, empirically grounded understanding of this critical research gap.

The subsequent research questions (RQs) guiding the investigation:

- RQ1: What environmental information, if any, do Albanian enterprises disclose in their official communications (e.g., financial statements, annual reports, websites)?

- RQ2: What is the internal status of environmental accounting within Albanian enterprises in terms of implemented practices, managerial awareness, and perceived barriers or enablers?

Our report offers a thorough examination of the status of environmental accounting in Albania by answering these inquiries. The results are analyzed using stakeholder, legitimacy, and institutional theories to comprehend how external forces and internal factors intersect to influence EA outcomes. The study not only records the existing disparity between public reporting and internal procedures but also examines its implications concerning Albania's sustainable development commitments and alignment with the EU. In the following sections, we initially examine pertinent literature regarding the global demand for EA and the recognized challenges in developing nations (Section 2). Subsequently, we delineate our methodology, encompassing content analysis and survey methodology (Section 3). Section 4 presents the results, followed by a discussion that connects the findings to theory and expectations in Section 5. Section 6 outlines the study's limitations, Section 7 provides recommendations for policy and practice in Albania, and Section 8 concludes the paper.

Review of Literature

Global Significance of Environmental Accounting and Theoretical Frameworks

Environmental accounting has gained international significance as stakeholders increasingly demand corporate responsibility for ecological effects. Climate change and environmental threats are widely acknowledged as financial challenges, rather than merely ethical concerns, impacting company performance and long-term economic stability. Environmental Accounting is seen as an essential instrument for firms to recognize and address environmental costs (such as waste, pollution, and resource use) that conventional accounting may overlook. By quantifying environmental consequences in monetary terms (such as expenses associated with pollution or the benefits of eco-efficient investments), environmental accounting facilitates improved internal decision-making and conveys sustainability performance to external stakeholders. Research indicates that incorporating environmental factors can stimulate innovation and enhance efficiency; for example, thorough examination of environmental expenses frequently uncovers opportunities for waste reduction, resulting in decreased operational costs and increased long-term profitability (Henri & Journeault, 2010; Burritt & Christ, 2016). Moreover, thorough environmental reporting can bolster a company's reputation and brand equity, as investors and customers increasingly prefer enterprises with robust sustainability credentials. A seminal study by Eccles et al. (2014) identified a positive association between

the quality of sustainability reporting and a firm's financial performance, indicating that "doing good" can coincide with "doing well" financially.

Three theoretical frameworks are frequently employed to elucidate corporate involvement, or the absence thereof, in environmental reporting: stakeholder theory, legitimacy theory, and institutional theory. Stakeholder theory posits that businesses are responsible to a diverse array of stakeholders who can influence or are influenced by the company's actions (Freeman, 1984). In the context of environmental disclosure, stakeholder theory posits that companies will provide more environmental information when subjected to heightened demands or expectations from significant stakeholders, including regulators, investors, customers, local communities, and non-governmental organizations. For instance, when investors seek climate risk information or when significant customers mandate that suppliers adhere to environmental norms, organizations are strongly motivated to implement EA practices and provide relevant information (Fasua & Osifo, 2020; David, 2022). Conversely, in the absence of stakeholder interest or pressure, firms may deprioritize environmental projects.

Legitimacy theory emphasizes the societal “license to operate.” It asserts that firms strive to ensure their operations are perceived as legitimate by society, aligning with social values and expectations. Achieving environmental legitimacy involves demonstrating that the firm’s environmental performance is acceptable to the public. If a company’s activities threaten the environment or draw public scrutiny (after a pollution incident), legitimacy theory predicts the firm will respond by improving environmental disclosures or practices to restore its reputation and align with societal norms (Suchman, 1995; Deegan, 2002). Notably, legitimacy theory can sometimes lead to a different prediction than stakeholder theory: it often suggests that organizations with compromised environmental legitimacy (due to poor performance) might disclose more information to manage perceptions. However, if external scrutiny is minimal (as in a setting where regulators and society show limited interest in corporate environmental performance), even poor performers may feel no need to disclose, resulting in consistently low reporting levels.

Institutional theory provides a broad perspective on how regulatory, normative, and industry forces shape corporate behavior. In developed markets, environmental reporting is increasingly formalized and mandated (through stock exchange rules, sustainability standards, etc.), creating coercive and normative pressures for companies to comply. In such contexts, not reporting can have legitimacy costs or signal non-compliance. In contrast, in many developing countries environmental reporting began as voluntary and

fragmented, with companies selectively adopting frameworks (GRI¹, SASB², TCFD³, etc.) or disclosing only favorable information. The absence of standardized requirements led to inconsistencies and non-comparable reports. Companies may selectively disclose favorable metrics, treating sustainability reports more as public relations tools than accountability instruments. Institutional theory posits that in the absence of coercive pressures (binding laws) and strong normative pressures (professional norms, industry best practices valuing EA), corporate behavior will vary widely. Many firms may simply not engage in environmental reporting, especially if they see no immediate benefit or if competitors are also not reporting (lack of mimetic pressure).

Global developments are now strengthening institutional pressures for EA. The EU's CSRD (2022) extends mandatory sustainability reporting to a broader range of companies and requires the use of uniform standards, while the new ISSB standards (IFRS S1 and S2, 2023) aim to globalize sustainability disclosure. These represent emerging coercive pressures that will likely influence Albanian companies via EU accession obligations and through multinational business networks. IFAC (2024) warns that without embracing international standards, developing markets could become a "gray zone" characterized by unreliable sustainability information and reduced investor trust. In summary, all three theories suggest that where external pressure is weak - a typical scenario in developing economies - corporate environmental transparency will remain low. Our study will later use these frameworks to interpret Albania's specific situation.

Environmental Accounting Challenges in Developing Countries

The difficulties of implementing environmental accounting are exacerbated in underdeveloped nations, where economic and institutional limitations sometimes obstruct the adoption of EA techniques and the scope of public reporting. A previous study delineates many principal obstacles and contributing elements in these contexts:

¹ Global Reporting Initiative is an international independent standards organization that provides guidelines and standards for sustainability reporting, enabling businesses and organizations to communicate their environmental, social, and governance (ESG) impacts transparently

² The Sustainability Accounting Standards Board (SASB) is an independent nonprofit organization that develops industry-specific sustainability standards, enabling companies to disclose financially material environmental, social, and governance (ESG) information to investors.

³ The Task Force on Climate-related Financial Disclosures (TCFD) is an initiative established by the Financial Stability Board (FSB) that develops voluntary, consistent disclosure recommendations to help companies inform investors and stakeholders about climate-related financial risks and opportunities.

Restricted Financial Resources: Enterprises in emerging nations often function under stringent capital limitations and may perceive investments in environmental management systems or certifications as nonessential. The expenses associated with implementing new pollution control technology, acquiring certifications such as ISO 14001, or employing environmental professionals can be exorbitant, particularly for small and medium firms. In the absence of external incentives or subsidies, environmental activities are often deprioritized relative to essential company expenses. According to the resource-based view of the company, organizations with ample resources are more capable of implementing EA, while resource-constrained firms prioritize survival and short-term financial gains. A 2012 global survey conducted by ACCA also identified the notion of elevated costs as a significant factor contributing to reluctance in voluntary environmental reporting. In underdeveloped nations, this obstacle is particularly pronounced: for instance, obtaining inexpensive finance for green initiatives is challenging, and governments infrequently provide financial incentives (such as tax cuts or grants) to mitigate initial expenses.

Expertise and Data Challenges: The implementation of environmental accounting necessitates specialized knowledge to quantify and assign monetary value to environmental impacts. Numerous companies have methodological challenges in evaluating environmental performance, such as assigning a monetary value to a ton of CO₂ emissions or estimating the costs associated with water pollution. Environmental impacts often involve externalities and scientific uncertainty, making quantification complex (Deegan, 2013). In fact, companies may resort to reporting select non-monetary indicators (such as trash or emissions in tons) without including them into financial records, owing to the absence of recognized valuation methodologies. Furthermore, the quality and availability of data are critical concerns. Companies may operate across various locations or suppliers, making the collection of consistent environmental data difficult.

Developing nations frequently lack comprehensive environmental monitoring infrastructure (laboratories, sensors, databases) and depend on manual data collection, resulting in increased variability and inaccuracies. Boiral et al. (2022) observe that discrepancies in data gathering among various sites and suppliers cause managers to doubt the veracity of sustainability metrics in comparison to established financial figures. Moreover, only a fraction of sustainability data, often comprising critical indicators such as carbon emissions, is subject to independent audit or assurance, if it is examined at all, even inside large companies. In 2021, around 69% of large multinational companies received some level of assurance for their sustainability reports, indicating that 31% lacked any assurance, and even those with assurance frequently addressed only a restricted range of criteria.

In poor nations, external verification is exceedingly uncommon, attributable to the scarcity of qualified auditors and experience. These factors erode confidence in environmental data and may deter organizations from comprehensive reporting, as managers might fear that the data will not withstand inspection or find the process overly cumbersome from a technical perspective.

Inadequate Regulatory Frameworks: A recurring observation in emerging economies is the lack or ineffective enforcement of environmental reporting rules. In contrast to financial reporting, which is often obligatory and governed by stringent rules, environmental disclosure in numerous developing nations has predominantly been optional. Governments may implement fundamental environmental regulations (e.g., necessitating an Environmental Impact Assessment for certain projects or pollution discharge licenses), although they frequently do not require firms to disclose environmental performance in annual reports or financial statements. As a result, numerous companies, particularly those concentrating on local markets, opt not to disclose any sustainability statistics publicly. This regulatory void results in a situation where firms possess significantly more knowledge about their environmental impacts than they disclose publicly, hence producing information asymmetry. Belal and Owen (2007) serve as a seminal reference, illustrating that in Bangladesh, the lack of statutory regulations resulted in limited and selective corporate social disclosures, with companies frequently neglecting environmental considerations.

The latest EU CSRD (2022) significantly alters the landscape in applicable jurisdictions by expanding mandatory sustainability reporting to encompass a wider array of organizations, including major unlisted firms, and mandates the use of standardized criteria. Nonetheless, those outside the EU or not adhering to these norms may lag behind. IFAC (2024) cautions that without the integration of international standards, developing markets may transform into a "gray zone" for capital markets, characterized by untrustworthy sustainability information, leading responsible investors to refrain from investment. In conclusion, in the absence of a compelling impetus from regulators, many enterprises in developing countries display inactivity or inconsistency in the adoption of EA.

Insufficient Stakeholder Pressure and Awareness: Stakeholder activity and public consciousness on environmental issues are typically diminished in emerging contexts, hence lessening the informal accountability pressure on companies. Concerns such as poverty alleviation and economic progress frequently overshadow discussions regarding environmental protection. Belal et al. (2015) noted a trend of "prioritizing industrialization over sustainability" in numerous developing nations. Local communities may not request environmental information from companies, and oversight by civil

society or the media is frequently inadequate. In Albania, public and NGO influence on business environmental performance has traditionally been feeble, due to more pressing economic issues. According to stakeholder theory, a significant absent impetus is evident: if customers, investors, and communities do not inquire, companies will not disclose information.

Our analysis indicates that numerous Albanian managers regard the absence of customer or client need for certifications or reports as a primary factor for not participating in EA. A survey of managers (Wilson & Husnain, 2022) in various developing nations identified "low stakeholder interest" as a major impediment to sustainability reporting. Likewise, concerns regarding legitimacy are diminished; companies do not apprehend public reprisal for non-disclosure if society is not attuned to these matters. The outcome is a low-pressure equilibrium in which neither the market nor society significantly urges companies to alter their environmental accounting practices.

Organizational Culture and Management Perspectives: Internal variables are pivotal. Numerous enterprises in emerging economies have a short-term, profit-oriented management strategy, which may foster opposition to innovative methods such as environmental accounting, viewed as costly with unknown advantages. If senior executives lack personal conviction on the strategic importance of sustainability, they may perceive Environmental Assessment as a bureaucratic encumbrance or a transient phenomenon (Gray, 2010; Qian et al., 2018). Organizational culture prioritizing quick financial results sometimes disregards non-financial measures. Stakeholder theory posits that managerial response is contingent upon leaders' perceptions of stakeholders' concern with the issue. If not, people are prone to disregard it. According to legitimacy theory, if a company's leadership perceives no legitimacy threat (due to insufficient external inspection), it lacks motivation to modify internal values or promote environmental openness. In contrast, the uncommon instance of an ecologically aware owner or leader can markedly alter the scenario: research has indicated that the personal values of senior management can propel proactive sustainability implementation (Chang & Deegan, 2008).

In underdeveloped nations, certain small enterprises spearheaded by "green" entrepreneurs may voluntarily exceed compliance due to authentic dedication, even in the absence of external forces. Our findings indicate that several micro-enterprises in Albania adopted sustainability methods solely based on the owner's values, contrary to the prevailing tendency (as elaborated later). Nonetheless, a prevalent assertion is that insufficient managerial support and limited internal awareness regarding EA are obstructive elements (Jamil et al., 2014). Numerous organizations lack training or exposure to environmental accounting ideas, which intensifies leadership's indifference or mistrust. In our survey, 70% of Albanian respondents indicated that they had

never received information or training on environmental accounting, underscoring an educational and cultural deficiency inside firms.

In conclusion, literature and contextual evidence suggest that Albanian firms likely exhibit minimal public environmental reporting, largely due to the hurdles outlined above (regulatory gaps, weak pressures, resource and knowledge constraints). However, it is plausible that some companies have undertaken internal environmental initiatives (like adopting ISO 14001 or tracking certain metrics) without publicizing them. This discrepancy between private action and public disclosure is precisely what our research investigates. We aim to determine whether Albania's "gray" reporting environment signifies an actual lack of environmental management activity or simply a lack of transparency about activities occurring behind closed doors.

Table 1 delineates the relationship between these principal barriers and determinants and the theoretical viewpoints outlined.

Barrier/Factor	Theoretical Link
<i>Financial resource constraints</i>	Resource-Based View / Stakeholder Theory: Firms with limited resources avoid costly EA initiatives. Unless stakeholders (e.g. investors) provide financial support or demand it, cost is a deterrent (Elhossade, et al., 2022; Abubakr, et al., 2024; Hossain, 2019; IFAC, 2024; Zatini, et al., 2025).
<i>Difficulty in measurement & data</i>	Institutional Theory (Normative/Cognitive): Lack of standardized methods and expertise makes EA technically challenging. In weak institutional environments, no normative pressure ensures capability-building, so firms struggle to quantify impacts reliably (Deegan, 2013; Arendt, et al., 2020; Biral, et al., 2022; IFAC, 2021; UNCTAD, 2023)
<i>Weak regulatory requirements</i>	Institutional Theory (Coercive): In absence of coercive laws or standards, firms face no legal mandate to report. Under legitimacy theory, abiding by minimum legal requirements means if none exist for EA, non-disclosure is not seen as illegitimate (Gray & Bebbington, 2001; Oyedokun, 2021; Eljido-Ten, 2004; Hahn & Kühnen, 2013; Latif, et al., 2020; Benvenuto, et al., 2023).
<i>Lack of stakeholder pressure</i>	Stakeholder Theory: If key stakeholders (customers, investors, public) do not demand environmental accountability, firms have little incentive to engage in EA. Legitimacy Theory: Low public awareness means companies do not fear legitimacy loss for ignoring EA (Wilson & Husnain, 2022; Qian, et al, 2021; Ikram & Khalid, 2019; Sarkis, et al., 2010; Alnaim & Metwally, 2024).
<i>Management attitude & culture</i>	Stakeholder/Legitimacy Theories: Management's stance depends on perceived stakeholder expectations. In a profit-focused culture, seen through legitimacy theory, unless external norms shift, internal values resist change. Champions with personal "green" values (agency of leaders) can override these trends (Chang & Deegan, 2008; Nazari, et al., 2015; Benvenuto, et al., 2023; Hahn & Kühnen, 2013; Ali, et al., 2024; Adnan, et al., 2010; Amran, et al., 2013).
<i>Knowledge and training gap</i>	Institutional Theory (Normative): Weak educational and professional infrastructure on sustainability leads to low awareness (no normative pressure to conform to EA best practices). This undercuts adoption, as identified in many developing contexts. Stakeholder theory also implies that if managers don't understand EA, they won't recognize potential stakeholder benefits, perpetuating low engagement (Elhossade, et al., 2022; Zatini, et al., 2025; Ikram & Khalid, 2022; IFAC, 2024).

Table 1. Principal Obstacles/Elements in EA Execution and Their Theoretical Associations
Impediment/Element Theoretical Connection, Sources: Assembled by the author from diverse publications (Belal & Owen, 2007; Hahn & Kühnen, 2013; Dissanayake et al., 2020; Nazari et al., 2015; etc.) and the referenced theoretical frameworks.

The Albanian Context and Research Deficiency

Albania, as an evolving economy in Southeast Europe, illustrates the issues. The nation's accounting and corporate governance systems have been reformed to align with international norms, such as the adoption of IFRS for financial reporting; however, obligations for environmental and sustainability reporting are nearly nonexistent. A 2014 study on environmental liabilities in Albania determined that accounting procedures and regulations failed to establish an adequate framework for reporting environmental concerns. Since that time, there have been gradual enhancements (e.g., heightened discourse on environmental issues in specific companies' annual reports), however, no overarching mandate has been established. Environmental disclosures by Albanian companies are predominantly voluntary and limited.

Before this study, information regarding the involvement of Albanian enterprises in environmental accounting was exceedingly scarce. No academic research has systematically quantified the number of enterprises disclosing environmental information or the extent to which Albanian firms internally implement environmental accounting. Nonetheless, expert assessments and geographical analyses reveal a substantial disparity. For instance, adjacent nations that are EU members or aspirants have commenced the implementation of EU non-financial reporting regulations, but Albania remains behind. The singular significant instance of advanced sustainability reporting in Albania was ANTEA Cement (a subsidiary of the TITAN group), which, until about 2015–2020, was allegedly the only company in the country to produce a GRI-standard sustainability report. The company stated in its integrated report that, to its knowledge, it was the only entity in Albania with such a standardized sustainability report. This underscores the remarkable nature of detailed reporting within the Albanian environment.

Concurrently, Albania has environmental challenges, including urban air pollution, industrial waste management difficulties, and the necessity for sustainable natural resource utilization. In pursuit of EU entry, adherence to European environmental norms is crucial. The EU's CSRD (2022) is expected to be implemented by transposition into national legislation, necessitating that several Albanian enterprises, particularly large and publicly listed entities, will soon be obliged to report on their environmental and social performance in accordance with EU regulations. This forthcoming transition necessitates an evaluation of the current status of Albanian enterprises and the challenges they encounter in adopting environmental accounting.

In conclusion, the literature and contextual analysis indicate that Albanian enterprises likely exhibit minimal public environmental disclosure, possibly attributable to the stated hurdles (regulatory deficiencies, insufficient pressure, etc.). Nonetheless, it is conceivable that certain companies have initiated internal initiatives, such as implementing ISO 14001 environmental

management systems or monitoring certain environmental indicators for internal use, which are not disclosed in public reports. This study investigates both outward reporting and internal procedures and awareness. This approach offers a foundational evaluation for Albania and enhances the discourse on environmental accounting in developing nations, utilizing Albania as a case study to demonstrate the disparity between real practices and public responsibility.

Methods

To address the research questions, we employed a dual-method approach: content analysis of public disclosures and a structured survey of corporate managers. This mixed methodology allowed us to juxtapose companies' external environmental claims with their internal actions (or, at minimum, managers' perceptions of practices and obstacles). By triangulating these methods, we can discern whether a lack of public reporting reflects a genuine absence of internal EA activity or merely a lack of disclosure. All data were collected in line with ethical guidelines. The survey was anonymous, and participants were assured that only aggregated results would be reported. Given the sensitive nature of potentially admitting limited environmental action, ensuring confidentiality was essential to obtaining candid responses.

Content examination of Public Environmental Reporting:

We conducted a qualitative content analysis of environmental information disclosed by a sample of 100 Albanian enterprises. The sample focused on medium and large firms across key industries, primarily drawn from the national registry of major taxpayers (which lists top companies by revenue). The industry composition included approximately 33 manufacturing firms, 25 in trade, 16 in construction, 8 in energy and mining, and the remainder in services (such as transport and telecommunications). For each company, we gathered all publicly available materials related to environmental issues: annual financial statements and notes, annual reports or standalone sustainability reports (if any), press releases, and relevant website content (sections on corporate responsibility, environment, health & safety, etc.). We searched these sources for references to environmental policies, initiatives, performance, or expenditures. Our analysis focused on the period 2020–2023 to capture the current state of reporting.

We performed a manual content review, scanning documents for specific keywords (e.g., “environment,” “sustainability,” “emissions,” “ISO 14001”) and noting the presence or absence of various types of environmental disclosure. The key categories we tracked for each company were:

- **Environmental policy/commitment:** Does the company mention having an environmental or sustainability policy or mission?

- **Environmental management systems:** Any reference to certifications like ISO 14001 or internal environmental management frameworks.
- **Environmental initiatives:** Descriptions of projects or measures aimed at improving environmental performance (energy efficiency, waste reduction, etc.).
- **Quantitative environmental data:** Reporting of metrics such as emissions levels, energy or water usage, waste generation, etc.
- **Environmental expenditures or liabilities:** Disclosure of environmental capital investments, provisioning for environmental remediation, fines or penalties for non-compliance, etc.
- **Risk and governance disclosures:** Mention of environmental or climate-related risks in risk management sections, and any indication of governance structures for environmental oversight (e.g., sustainability committees or dedicated managers).

For each category and each company, we recorded whether such information was disclosed. We then aggregated the results to determine what percentage of companies disclosed each type of information (e.g., the percentage that have an environmental policy statement publicly, the percentage that reported any emissions data, etc.). This content analysis provides a broad overview of public environmental reporting practices (or lack thereof) among Albania's largest enterprises.

Survey of Managers on Internal Practices and Perceptions

To investigate the 'reality behind closed doors', we developed a structured questionnaire aimed at individuals responsible for finance or management within Albanian enterprises. These individuals were often chief financial officers (CFOs), accounting managers, or sustainability managers, when applicable. The survey was disseminated to the identical cohort of organizations utilized in the content analysis (when feasible) and to supplementary enterprises using professional networks and an online survey link. We obtained 71 legitimate responses, encompassing a varied array of sectors akin to the content analysis sample. The sector distribution of the responding companies closely reflected the sample frame: manufacturing (~25% of respondents), trade (~24%), services (~18%), construction (~10%), with additional sectors including energy and transport. This suggests that our study included a broad cross-section of the corporate environment.

The survey instrument was organized into sections aligned with our research topic and informed by the relevant literature on EA:

1. **Company and respondent background:** Questions about the firm's industry, size, and ownership, and the respondent's position (to contextualize responses).

2. **Knowledge and awareness:** Questions evaluating the respondent's familiarity with environmental accounting and sustainability reporting concepts. We asked if they were aware of frameworks like GRI, or if they had any training related to environmental accounting. We also asked about their awareness of national or international sustainability reporting regulations.
3. **Current practices:** Questions on whether the company has implemented any environmental accounting or sustainability practices internally. This included yes/no items on tracking environmental costs, setting environmental performance targets, having an environmental management system (e.g., ISO 14001 certification), measuring carbon footprint or other metrics, producing any sort of sustainability report (even if not public), or sharing environmental information with stakeholders (like investors or a parent company).
4. **Barriers to implementation:** Using a Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), we presented a list of potential barriers identified from the literature (see Section 2.2) and asked respondents to rate their agreement that each was a significant barrier for their company. The listed obstacles included: "Insufficient financial resources for environmental initiatives," "Absence of legal requirements for reporting," "Lack of pressure from customers or investors," "Management does not see environmental accounting as important," "Inadequate expertise or guidance on environmental accounting," and "Belief that environmental reporting is just marketing and not valuable." This section helped identify which barriers were considered most severe by managers.
5. **Perceived benefits and support needs:** Also using Likert scales, we asked about potential benefits of EA and what external support might encourage adoption. For example, we asked respondents to respond to statements like "Adopting environmental accounting could reduce our costs or improve our reputation," and whether they agreed that certain incentives or assistance would help (options included government-provided training or guidelines, subsidies or tax incentives for sustainability initiatives, availability of expert consulting support, opportunities to partner with universities on projects, etc.). This aimed to gauge managers' views on the advantages of EA and what would motivate their companies to engage more in it.
6. **Open comments:** A final open-ended question invited any additional observations or experiences regarding environmental accounting in the company, allowing respondents to elaborate in their own words or provide examples.

The survey questions were developed based on prior research to ensure we covered relevant topics. The list of barriers in section 4, for instance, was directly informed by common challenges found in developing country contexts (as summarized in our literature review). We conducted a pilot test of the questionnaire with a small number of experts and managers to check for clarity and relevance, making minor adjustments prior to full deployment.

Data Analysis

We used descriptive analytical techniques for both the content analysis and the survey data. For the content analysis, we calculated simple frequencies and percentages of companies disclosing each category of information. For example, we determined what fraction of the 100 companies had an environmental policy statement publicly, or how many provided quantitative environmental metrics. These results were primarily descriptive (e.g., “X% of companies report having an environmental policy”).

For the survey, we similarly relied on descriptive statistics. We computed the percentage of respondents who answered “yes” to implementation of various practices, the proportion who agreed (rated 4 or 5) that certain barriers apply, and average Likert-scale ratings for barrier and benefit statements. We also looked at differences between subgroups (e.g., comparing the responses of companies that have adopted EA practices vs. those that have not) in a qualitative manner - such as noting if one group tended to agree more with a statement than another (as we did for the cost barrier, comparing adopters’ and non-adopters’ average ratings). Given the exploratory nature of our study, we did not conduct advanced inferential statistical tests; instead, our analysis focuses on identifying key patterns and themes from the data.

By integrating the content analysis and survey findings, we can triangulate the results. For instance, if many managers claim their firms have implemented a certain internal practice, we can check whether evidence of that practice appears in their public disclosures. Conversely, if the content analysis shows very limited public reporting, the survey responses help us determine whether that reflects a genuine lack of activity or simply reticence to disclose.

This combined approach strengthens our interpretations: a convergence between the two data sources provides confidence in a finding, while a divergence (e.g., internal action present but external reporting absent) points to an interesting gap that warrants explanation.

All data were analyzed at an aggregate level to preserve the confidentiality of individual companies. In the next section, we present the results of the content analysis (public disclosures), followed by the survey results (internal practices and perceptions).

Results

Public Environmental Reporting: Findings from Content Analysis

The content analysis indicates that environmental disclosure among Albanian enterprises is remarkably weak. A significant majority of the 100 companies examined do not disclose any meaningful environmental information in their annual reports or on their websites. Table 2 presents the frequency and types of environmental disclosures among 100 Albanian companies analyzed in this study. Results indicate limited transparency, with 80% of companies providing no environmental disclosures.

Table 2: Frequency and Type of Environmental Disclosures (Content Analysis of 100 Companies)

Type of Environmental Disclosure	Frequency (n=100)	Percentage (%)
No Environmental Disclosure	80	80%
General Environmental Policy Statement	15	15%
ISO 14001 Certification or Environmental Management System (EMS)	12	12%
General Environmental Initiatives (Qualitative)	10	10%
Quantitative Environmental Performance Data (e.g., emissions, waste)	2	2%
Environmental Expenditures or Liabilities	2	2%
Governance Structures (Dedicated roles or committees for EA)	2	2%
Standalone Sustainability Report (GRI or equivalent)	1	1%

Key findings include:

Overall prevalence of environmental information: Merely 20% of companies disseminated any environmental information in their public communications, and this was frequently minimal. Approximately 80 out of 100 companies made no reference to environmental effect, strategies, or performance at all. The variation was sector-specific: around one-third of manufacturing firms referenced environmental issues, whereas only roughly 13% of trading companies disclosed such information. Industries such as services and energy were intermediate, with approximately one in four companies referencing environmental concerns. These references, however, were typically superficial.

Policy statements: Merely 15% of companies expressly indicated the existence of an environmental policy or commitment. Often, this was encapsulated in a solitary sentence inside the corporate profile or CEO statement (e.g., “We are dedicated to environmental protection and regulatory compliance”). Only a few organizations (approximately 2-3) provided additional details, such as specification of policy objectives or environmental

management systems. The majority of companies lacked a clearly articulated environmental policy.

Environmental management systems (EMS): Approximately 12% of the sampled organizations reported the implementation of an environmental management system certified to ISO 14001. These primarily comprised larger manufacturing or construction companies whose activities had considerable environmental influence. The disclosure usually appeared as a statement in the annual report or on the website indicating ISO 14001 certification. Although 12% is a small proportion, it is significant that several companies hold international standard certificates. It indicates that certain companies, particularly those engaging with foreign partners or markets, are willingly implementing these systems to enhance performance or comply with supply chain mandates. Nevertheless, the statistic indicating that over 90% lack such certification underscores the restricted dissemination of environmental management methods within the Albanian corporate sector.

Sustainability reporting and standards: Almost no Albanian enterprises provide independent sustainability or environmental reports that adhere to global standards (e.g., GRI). Historically, one company in the cement industry was the sole example of a comprehensive sustainability report that was both audited and compatible with GRI standards. Excluding that instance, our investigation did not identify any company issuing a GRI report or its equivalent. Certain companies incorporate a segment on environmental and social matters in their annual reports, particularly if they are subsidiaries of overseas multinationals that mandate ESG reporting. However, these parts are generally concise. The absence of uniform reporting results in a deficiency of comparability and depth, aligning with prior observations that GRI-based reporting has been "virtually non-existent" in Albania until recently.

Environmental hazards and compliance: Merely 2 out of 100 organizations were identified as recognizing environmental issues in their public documentation. This suggests that the disclosure of environmental risks, including potential liabilities, regulatory changes, and climate-related threats to the firm, is exceedingly uncommon. Likewise, discourse regarding adherence to environmental regulations was predominantly lacking; companies appear to assume legal compliance as a given and do not expound upon it in their reports. This low occurrence indicates that companies either do not formally evaluate these hazards or, if they do, opt not to disclose them. This also indicates the absence of regulatory mandates to incorporate such information in financial disclosures.

Governance and accountability: We saw a significant lack of transparency about environmental governance frameworks. Only one corporation specifically said that a board committee or a senior executive was accountable for environmental issues. Another corporation reported

possessing a structure, such as a Health, Safety, and Environment (HSE) department, for addressing environmental concerns. No other firm indicated any internal accountability for environmental performance beyond those mentioned. This indicates that environmental concerns have mostly not been incorporated into corporate governance for most companies (e.g., absence of sustainability committees, lack of referenced environmental managers).

Quantitative data about environmental performance: The most notable discovery is the significant lack of empirical data. Merely 2 companies (2%) revealed any quantifiable environmental performance metrics (e.g., emission levels, resource use). In such instances, the disclosures were restricted: for instance, a beverage firm revealed its annual water conservation and CO₂ emission reductions attained through efficiency initiatives. Another company supplied several statistics pertaining to recycling and trash minimization. These are exceptional instances; often, firms refrain from disclosing data such as total greenhouse gas emissions, energy consumption, water usage, or garbage production. Our data indicates that even companies in heavy industry did not publicly disclose such figures. Consequently, stakeholders possess few quantitative criteria to assess the environmental performance of Albanian enterprises.

Environmental expenditures and accounting entries: In alignment with the previously mentioned, financial disclosures about environmental expenditures or liabilities are nearly nonexistent. Merely 2% of companies, specifically two entities, disclosed any financial data pertaining to the environment. One corporation indicated the establishment of an environmental provision, presumably for prospective remedial expenses. None of the companies revealed environmental capital expenditures or fines incurred for environmental violations. This indicates that environmental expenditures are predominantly unrecognized in financial statements - they are either not incurred, unacknowledged, or not delineated from general expenses in reporting. This indicates a near-total absence of environmental accounting integration in external financial reporting: environmental expenses are not specified nor emphasized, and environmental liabilities, if there, are rarely acknowledged or quantified in public disclosures.

Table 3: Sectoral Differences in Environmental Disclosure

Sector	No. of Companies	% with Environmental Disclosure	Average "Environmental Score"
Energy & Hydrocarbons	9	~22% (2 of 9)	0.33 points (very low)
Pharmaceuticals	10	30% (3 of 10)	0.40 points
Construction/Infrastructure	16	~19% (3 of 16)	0.69 points
Manufacturing/Processing	33	33% (11 of 33)	1.12 points
Trade/Services	24	~13% (3 of 24)	0.21 points
Other (Telecom, Media, etc.)	8	25% (2 of 8)	0.75 points
Total/Average	100	~24% (24 of 100)	0.58 points (low)

Table 4 presents a summary of sectoral differences in environmental disclosure among 100 Albanian companies. The data show generally low disclosure rates across all sectors, with the highest rate observed in the Manufacturing/Processing sector (33%, averaging 1.12 points). Conversely, the Trade/Services sector demonstrated the lowest level of disclosure (around 13%, averaging just 0.21 points). Overall, environmental transparency remains limited, reflected by the low average score of 0.58 points across all sectors, highlighting the significant gap in public environmental accountability within Albanian companies.

In conclusion, the public disclosure of environmental issues by Albanian enterprises is largely minimal or non-existent. A limited number of comparatively advanced companies offer minimal disclosures (policy statements, ISO certification, a few performance indicators), although they are the exception. The general assessment is characterized by "gray" reporting, a term used by Gray (1993), who noted that numerous countries' business reports largely lack environmental (green) information. Our findings support the hypothesis derived from legitimacy theory that, in an environment characterized by minimal external demand, companies will not willingly disclose significant information regarding their environmental impact. The subsequent section's findings indicate whether this absence of reporting correlates with a deficiency in action or if certain companies are internally involved in EA without public disclosure.

Internal Practices and Perceptions: Survey Results

The managers' survey offers insight into the developments occurring behind closed doors concerning environmental accounting. The findings indicate that, although public disclosure is limited, there is somewhat increased internal activity, albeit still in the nascent stages for most organizations. Table 3 highlights sectoral differences in the adoption of internal environmental accounting (EA) practices based on survey responses

from 71 Albanian enterprises. The manufacturing sector showed the highest rate of internal EA practice implementation (77.8%), followed closely by construction (71.4%). Service-based sectors and energy/utilities also exhibited notable adoption rates (61.5% and 60%, respectively). In contrast, sectors such as trade/wholesale/retail (47.1%) and transportation/logistics (33.3%) demonstrated lower levels of EA engagement. Overall, approximately 59.2% of surveyed companies reported initiating some form of internal environmental accounting practices, underscoring considerable variability among industry sectors.

Table 4: Sectoral Differences in Internal Environmental Accounting (EA) Practices (Survey Results, n=71)

Sector	Number of Respondents	Companies Implementing EA Practices	Implementation Rate (%)
Manufacturing	18	14	77.8%
Construction	7	5	71.4%
Energy and Utilities	5	3	60.0%
Services	13	8	61.5%
Trade/Wholesale/Retail	17	8	47.1%
Transportation and Logistics	6	2	33.3%
Other	5	2	40.0%
Total/Average	71	42	59.2%

We present the principal findings:

Awareness and training: Respondents possess a limited understanding of environmental accounting. Merely 30% of managers reported having had any training or education in environmental accounting or sustainability reporting in recent years. In contrast, almost 70% reported lacking instruction on these subjects. Indeed, 40% of respondents acknowledged that they had not obtained any information regarding this topic from any source, including training, professional organizations, or media. This underscores a considerable awareness deficiency - numerous financial professionals in Albania remain unacquainted with EA concepts, indicative of the absence of such material in university curricula or ongoing professional development, a notion supported by IFAC (2024), which advocates for the modernization of accounting education to incorporate sustainability. Several respondents indicated in their comments that they became aware of certain terminology, such as “environmental management accounting,” solely through participation in the survey, highlighting the novelty of the notion in this context.

Current implementation of environmental accounting practices: We inquired if companies have initiated the implementation of any environmental accounting or sustainability practices. Approximately 32% of firms (23 out of 71 respondents) reported having initiated some form of internal EA practices.

This may encompass basic activities such as quantifying power consumption to more formal initiatives like implementing an environmental policy or acquiring ISO 14001 certification. Simultaneously, 44% (31 companies) reported that they have not yet adopted any such practices. The remaining 24% ("16 don't know" responses) indicates that those respondents were uncertain about their company's position, possibly due to the absence of a formal practice and their lack of personal engagement with it. The data indicates that almost one-third of companies are initiating sustainability efforts, despite a minimal percentage publicly disclosing any information. It verifies a disparity between internal practices and external disclosures: numerous companies that engage in internal actions fail to communicate them transparently.

Characteristics of practices among adopters: Among the respondents indicating that their company has initiated Environmental Assessment practices, prevalent examples included: monitoring energy or water usage to enhance efficiency, establishing waste segregation or recycling initiatives, adherence to ISO 14001 (notably, several of the 12% with ISO certification provided responses), and incorporating environmental criteria into investment decisions (such as evaluating environmental impact for new projects). Several individuals indicated that they have started the internal calculation of their carbon footprint or environmental KPIs, frequently motivated by mandates from international partners or parent companies. It is essential to acknowledge that these efforts are predominantly operational or managerial and have not yet been reflected in public reports.

The inclination to initiate Environmental Accounting practices was greater in specific sectors, consistent with anticipated environmental impact. Manufacturing and construction companies exhibited the highest adoption rates, with almost 80% of manufacturing firms and 71% of construction firms implementing at least one sustainable strategy. Sectors such as services and trading experienced a decline, with approximately 60-65% reporting some impact. This tendency is rational, as companies with more substantial environmental footprints (such as factories and building sites) are likely to experience a heightened necessity or external pressure (e.g., from overseas clientele) to mitigate those impacts. Notably, certain micro and small firms were included among the adopters. Our survey encompassed several diminutive firms (fewer than 10 employees), and unexpectedly, several reported participation in environmental initiatives. For example, one small design agency claimed to be "100% green" in its operations by utilizing solar power and offsetting emissions, motivated by the founder's principles. This corroborates our previous observation that firm size is not an unequivocal indicator; driven small firms might defy the trend. Statistically, size did not demonstrate a substantial impact on adoption rates in our sample, maybe due to sample biases or the pronounced effects of individual cases.

Identified obstacles: The survey illuminated the barriers that managers perceive most acutely. The obstacle identified as most significant by respondents was the **lack of pressure from customers/clients**. Approximately 41% of respondents gave this barrier a high rating (4 or 5 on the 5-point agreement scale), making it the most widely acknowledged hurdle. One respondent stated, "Our local clients do not request any environmental certifications or reports, so it is not a priority for us." This supports the prior theoretical assumption that in the absence of stakeholder demand, companies feel little incentive to act (Elhossade et al., 2022; Hossain, 2019). The next most frequently cited obstacles were:

1. **Financial cost concerns:** Numerous managers, particularly from firms that have not embraced Environmental Accounting, regard the supplementary expenses associated with environmental projects or reporting as considerable. Non-adopters assigned a high average rating of approximately 4.2/5 to the statement "Environmental accounting would incur significant financial costs for us," in contrast to adopters, who ranked it lower at 3.0/5. This suggests that cost represents a significant obstacle for enterprises that have yet to commence operations – a quintessential hindrance. **Absence of regulatory mandates:** A significant majority concurred that "If there were more stringent laws or obligatory requirements, we would comply, but in their absence, we do little." This indicates that companies mostly acknowledge the ineffectiveness of the voluntary method, yet they would adhere to regulations. A manager remarked, "We adhere to all Albanian environmental laws; however, as reporting is not mandated, we do not engage in it." If it is necessary tomorrow, we will certainly comply.
2. **Adequate knowledge/expertise deficiency:** Approximately 50% of respondents concurred that they "lack sufficient know-how or guidance" to execute environmental accounting. This correlates with the training deficiency. Companies lack confidence in initiating processes and determining metrics, resulting in their reluctance.
3. **Management and cultural disposition:** The responses were rather divided; approximately one-third explicitly concurred that their senior management "does not regard environmental accounting as significant" or that the corporate culture prioritizes short-term financial objectives over sustainability. Some individuals remained indifferent or expressed disagreement, frequently indicating that their own participation may elicit greater interest. Nonetheless, the absence of intrinsic motivation was recognized as a concern by numerous individuals.

4. ***Perception of low value (PR⁴ concern):*** A significant minority of respondents perceived that "sustainability reporting is primarily a public relations/marketing endeavor rather than a source of genuine value." Those who concurred with this viewpoint were predominantly from companies that do not engage in Environmental Accounting, suggesting a level of cynicism or skepticism regarding the efficacy of reporting. This mentality can serve as an impediment, as it diminishes possible advantages.
- ***Perceived advantages and motivations:*** Conversely, participants who have adopted EA methods or exhibit a favorable disposition generally believe in specific benefits. A significant proportion of adopters concurred that "enhancing environmental practices can diminish operational expenses (via efficiency)" and "it enhances our company's reputation and stakeholder confidence." Adopters also exhibited greater consensus with assertions such as "Our company would derive long-term advantages from incorporating environmental considerations." This disparity in perception between adopters and non-adopters indicates that once a company initiates engagement with environmental accountability, they begin to recognize its value, whereas those who have not remain skeptical or uninformed – a quintessential knowledge/experience gap.
- ***Required support:*** There was widespread agreement among both adopters and non-adopters that additional external assistance would be beneficial. Approximately 85% of participants concurred that the government ought to furnish more explicit recommendations or training on environmental accounting and reporting, and that various incentives (such as recognition, subsidies for sustainable initiatives, or streamlined reporting frameworks for small and medium-sized enterprises) would motivate them. A considerable percentage (about 60%) expressed a willingness to collaborate with institutions or experts to establish EA systems, and many desire workshops or pilot projects for experiential learning. A mere 18% expressed a willingness to incur substantial sums for external consultants to execute EA, suggesting a preference for public or subsidized support. One reply expressed a preference for assistance from universities or the state through projects or training, rather than using costly consultants, indicating a sensitivity to expenses.
- ***Internal versus external disparity:*** A significant revelation from integrating the previously mentioned results with the content analysis is the substantial divergence between internal actions and outward

⁴ Public Relations

disclosures. Of the 23 companies that reported implementing sustainability strategies, only a few publicly acknowledged such efforts. Numerous organizations engaged in internal initiatives, such as those adhering to ISO 14001 or implementing energy conservation programs, are not publicly disclosing these efforts, potentially overlooking an opportunity to highlight their achievements. In response to inquiries regarding their limited publicity, some managers indicated that either (a) they believed the public or investors would lack interest, (b) they were awaiting formal requirements or guidelines for reporting, or (c) they were apprehensive that partial or voluntary reporting could invite unwarranted scrutiny or necessitate additional effort to uphold. This suggests a prudent strategy; companies opt for silence over voluntary disclosure, potentially until it becomes customary.

The survey results illustrate a complex reality: a minority of Albanian enterprises are beginning to adopt environmental accounting or management techniques, primarily motivated by pragmatic considerations such as efficiency, fulfilling partner expectations, and individual initiative. Nevertheless, the majority are still in preliminary phases or have yet to commence, citing various obstacles. Knowledge deficiencies and the absence of external stimuli are widely evident. External action is poised to occur, either via regulation or capacity-building, to alter these views and behaviors.

Discussion

The results of our analysis indicate a significant disparity between the environmental claims made by Albanian enterprises and their actual practices. In analyzing these data, we utilize the previously established theoretical frameworks to elucidate the factors contributing to this disparity and juxtapose the literature's assumptions with the actual observations.

From a stakeholder theory perspective, the limited presence of environmental information in Albanian corporate reporting results logically from insufficient stakeholder pressure. Stakeholder theory predicts that if important stakeholders (investors, customers, regulators, community) do not require environmental accountability, companies will not provide it voluntarily. Our findings robustly corroborate this concept. Managers expressly said that insufficient pressure from customers or investors is a primary reason for not pursuing EA, with "no one requests it" being the foremost obstacle. Furthermore, Albania's capital market is limited and mostly influenced by short-term financial factors; environmental performance has not yet become a requirement for bank loans or investments, and there is a negligible presence of activist investors. Moreover, public understanding and civil society engagement regarding corporate environmental matters are

constrained. This backdrop corresponds with previous findings in underdeveloped nations (Belal & Owen, 2007; Belal et al., 2015), indicating that stakeholders frequently refrain from applying pressure, leading to limited corporate openness. The empirical observation that around 80% of companies provide no environmental disclosures, and merely 2% present quantitative data, can be attributed to the lack of incentives driven by stakeholders. Companies do not recognize a detriment from non-disclosure or an advantage from disclosure in the present environment.

Legitimacy theory provides an additional perspective. One may inquire: considering that Albania continues to confront substantial environmental issues (such as pollution), would firms not pursue legitimacy by demonstrating environmental responsibility? Legitimacy theory posits that they will, but solely if their legitimacy is jeopardized or if societal norms shift to anticipate such disclosures. In Albania, the social contract concerning corporate environmental responsibilities seems to be weak. Our findings indicate that firms do not perceive a legitimacy threat from their environmental impact, presumably due to insufficient challenges from society and regulators. For instance, even industries recognized for their pollution, such as oil extraction or mining in Albania, have not encountered significant public crises or pressure campaigns that compel them to engage in defensive transparency.

Legitimacy theory suggests that underperformers may release more information to manage perceptions; however, in this case, underperformers (assuming most are indeed underperforming or failing to handle impacts effectively) refrain from disclosures, indicating that the external pressure mechanism is inactive. Albanian enterprises arguably sustain legitimacy by adhering to minimal legal standards; specifically, if they comply with fundamental environmental requirements and face no protests, they perceive their legitimacy as secure without further reporting obligations. This aligns with the quotation from our literature: in a low-pressure climate such as Albania, we did not anticipate numerous companies to disclose environmental statistics, and this assumption was fulfilled.

Legitimacy theory can elucidate one facet: why do certain organizations implement internal processes notwithstanding the absence of external pressure? This may represent proactive legitimacy management in expectation of forthcoming norms. Companies with overseas partners or ambitions for worldwide markets may foresee the necessity of demonstrating environmental credentials in the future. By obtaining ISO 14001 or initiating emissions measurement at this time, they develop internal capabilities to ensure preparedness for any legitimacy demands that may emerge, such as EU rules or customer requirements. This is an endeavor to attain pragmatic legitimacy with certain stakeholders (Suchman, 1995) - for instance, companies mandating certification for suppliers. Some survey replies

indicated that organizations sought environmental certification due to expectations from a foreign client or parent company. In terms of legitimacy, Albanian enterprises are conforming to the standards of international stakeholders to preserve legitimacy in that relationship, despite the absence of local normative requirements.

Institutional theory elucidates the structural and normative context influencing these results. The absence of a coercive regulatory system in Albania is a critical element. In the absence of obligatory sustainability reporting regulations, companies incur no legal repercussions for failing to provide information. Our findings indicate that firms acknowledge they would increase their efforts if mandated by legislation, exemplifying a scenario where coercive pressure is now lacking but may be impactful if implemented. The institutional void encompasses normative pressures: Albania's professional accounting organizations, educational establishments, and business groups have just lately initiated discussions on sustainability, if they have done so at all. A robust professional standard asserting that "effective accounting encompasses environmental accounting" has yet to be established. This is evidenced by the limited training and understanding among managers, indicating an immature normative institutional framework. Mimetic pressures are minimal; if no peers are releasing sustainability reports, a company lacks an industry benchmark to imitate and may hesitate to differentiate itself or reveal sensitive information unnecessarily.

Institutional theory also encapsulates the emerging dynamic: the global movement towards standardization, exemplified by CSRD and ISSB standards, may ultimately impose coercive pressure on Albania through EU accession prerequisites and normative pressure as global companies and investors disseminate expectations. Initial indications suggest that the few enterprises exhibiting increased activity are frequently subsidiaries of multinational companies (subject to coercive pressure from their parent company) or those engaged with EU markets (experiencing mimetic pressure to conform to international standards). It is anticipated that as these companies lead by example, others will emulate them; however, this mimetic impact has not yet shown significantly, presumably due to the scarcity of examples and their limited publicity. Albania is now in the nascent phase of developing the institutional mechanisms for EA.

Comparing expectations with actual outcomes: Prior to the study, it could have been anticipated, considering Albania's EU candidacy and global trends, that a moderate proportion of bigger Albanian enterprises would have initiated sustainability reporting in some capacity. It would be logical to anticipate that banks or telecommunications businesses, typically early adopters in other sectors, may release CSR reports. Our data, however, indicate that essentially none of the large companies engage in such practices.

The extent of the public reporting gap is more significant than expected. Regarding internal procedures, we anticipated minimal adoption; yet the survey indicated a higher engagement level (32% adoption) than a skeptic might presume (it is not 0%; some organizations are implementing measures). This signifies latent progress under the surface. The relationship between knowledge and action is noteworthy: our findings corroborate other empirical research indicating that more awareness is associated with greater adoption. Organizations with managers possessing greater awareness of EA were markedly more inclined to use it, underscoring the significance of education and information dissemination as a catalyst.

One expectation of stakeholder and legitimacy theories is that companies in environmentally sensitive industries will disclose information or act more frequently due to increased legitimacy risk or stakeholder interest. In Albania, we observed that those sectors, specifically manufacturing and construction, exhibited greater rates of internal adoption. Nevertheless, they continued to withhold external disclosures. This indicates that although they acknowledge the necessity of managing the environment operationally (perhaps for reasons of efficiency or regulatory compliance), they do not perceive a requirement to disclose this publicly. They may be apprehensive that revealing environmental data could invite scrutiny, as some companies fear adverse reactions if the data is unfavorable, leading them to choose for silence - a tendency noted by certain legitimacy theory experts.

A significant topic of discussion is the disparity between public perception and private reality. The term "Reality Behind Closed Doors" is fitting; internally, organizations may be engaging in activities beyond public awareness. This disparity may provide challenges. From a stakeholder perspective, stakeholders cannot incentivize or promote companies for sustainability initiatives if they are uninformed about them. From a company's standpoint, any goodwill derived from environmental responsibility is relinquished if it remains concealed. Why would firms choose not to capitalize on reputational advantages from positive actions? The perceived dangers of disclosure, such as accountability, continual reporting, and providing information to regulators or NGOs that could be detrimental, likely outweigh the minimal reputational benefits in a society that has not yet fully recognized the value of such initiatives. In other words, firms may deliberately remain silent about their benevolent actions to prevent establishing a precedent or attracting scrutiny. This indicates a trust issue; they may lack confidence that disclosures will be addressed favorably or equitably.

By correlating data with theory, it is evident that all three viewpoints possess explanatory efficacy.

The stakeholder hypothesis is substantiated by the association between low pressure and minimal reporting. Legitimacy theory is demonstrated by

the generally low need for legitimacy restoration, except for enterprises exposed internationally.

Institutional theory is demonstrated by the absence of regulation and the explicit indication that the introduction of regulation would alter behavior, since respondents expressed a readiness to comply if required. Our research aligns with findings from earlier studies conducted in poor countries. Hahn & Kühnen (2013) observed that firm size and international orientation are prevalent drivers of sustainability reporting; in Albania, larger firms and those with overseas affiliations were marginally more engaged, while still not publicly reporting. Belal and Cooper (2011) identified a disparity between the external statements of companies in Bangladesh and their internal practices, frequently resulting in minimal disclosures; likewise, Albanian organizations exhibit slightly greater internal actions while maintaining limited external communication. One distinction is that in certain nations, external CSR reporting increased despite its low quality, occasionally serving merely as a superficial embellishment.

In Albania, firms have mostly refrained from reporting altogether, instead producing potentially shallow sustainability reports. This may be perceived as either a significantly delayed condition or a more candid approach (no reporting is preferable to deceptive reporting).

The discourse would be deficient without considering the forthcoming EU directive (CSRD). The significance cannot be exaggerated: once Albanian organizations, especially in the banking sector or large enterprises, are required to comply, we anticipate a profound transformation. Where legitimacy and stakeholder pressures have not incited action, a legal mandate is likely to do so. The inquiry, however, is: Are they prepared? Our data indicate a negative conclusion currently. If companies were required to prepare ESG reports tomorrow, many would have difficulties with data and expertise. This highlights the necessity for capacity improvement (as discussed in the recommendations).

In conclusion, the disparity between Albania's present condition and the anticipated criteria for EU alignment is substantial. The theoretical frameworks anticipated minimal interaction considering Albania's setting, and our empirical research corroborates these predictions. Theory also proposes avenues for enhancement: augment stakeholder pressures (via awareness and activism), elevate legitimacy concerns (by educating the public on corporate environmental accountability), and implement stringent institutional pressures (such as rules, standards, and education). Our proposals in the subsequent section derive directly from these consequences.

Limitations

This study provides important insights into environmental accounting in Albania; however, it has several limitations that should be acknowledged:

- **Sample coverage:** We examined 100 enterprises and obtained 71 survey responses, which included many of Albania's larger companies. Even so, the sample may not fully represent all businesses in the country. Small and micro-sized enterprises (which constitute most businesses in Albania) were underrepresented. Therefore, our findings are most applicable to medium and large firms. Caution is warranted in generalizing results to very small enterprises or the informal sector.
- **Self-reporting bias:** The survey data rely on managers' self-reported behaviors and perceptions. There is a risk of response bias; for example, managers who choose to respond might have a greater interest in sustainability and thus could overstate the extent of internal EA adoption. Conversely, some respondents might underreport certain practices or attitudes due to social desirability bias (e.g., reluctance to admit doing nothing at all). We tried to mitigate this by assuring anonymity, but the potential for bias remains.
- **Depth of content analysis:** Our content analysis was primarily qualitative, focusing on the presence or absence of information rather than quantifying disclosure quality in detail. It is possible we missed some subtle disclosures, or that some companies include environmental information in fragmented ways (for instance, a brief note in financial statements about an environmental provision) that we did not fully capture or quantify. However, given the generally minimal disclosure, it's unlikely that any small omissions would change the overall conclusion. Another related constraint is that we only reviewed publicly accessible documents; if a company communicates environmental information privately to certain stakeholders (but not via its website or reports), our study would not have captured that.
- **Time frame (snapshot):** The study offers a snapshot of practices in the early-to-mid 2020s. This is a period of rapid change in global sustainability reporting. It is possible that Albanian companies will alter their behavior soon in response to external factors, such as gearing up for CSRD compliance in 2024–2025. Our findings could quickly become outdated if there is a surge in the adoption of EA in the next few years. Conversely, we did not perform a historical analysis to see how things have trended over time; we cannot conclusively say whether the situation is improving or stagnating, only that current levels of disclosure and practice are low.

- Scope of internal practices assessed: Environmental accounting encompasses a wide range of concepts. We necessarily narrowed our focus to specific practices and perceptions (as captured in our survey). We did not measure actual improvements in environmental performance or financial outcomes resulting from EA practices. Nor did we delve deeply into related domains such as corporate social responsibility or governance practices that might interact with environmental efforts. By design, our scope was focused on environmental accounting, and thus, we do not provide a comprehensive view of overall corporate sustainability performance in Albania.
- Lack of comparative benchmark: We did not include a direct comparison group (such as a parallel survey in another country) in this study. Thus, while we refer to other developing nations in our discussion based on the literature, we cannot empirically compare Albania's situation to its peers within our data. Including a comparative international perspective could enhance understanding of how Albania differs or aligns with regional or global patterns, but that was beyond our reach in this project. These limitations point to opportunities for future research. For instance, longitudinal studies could track the evolution of Albanian firms' EA engagement over time, especially post-CSR implementation. Comparative studies could examine similar economies to put Albania's progress in context. Additionally, qualitative approaches (e.g., interviews with executives, regulators, or stakeholders) could provide deeper insights into attitudes and motivations that quantitative surveys might not fully capture.

Suggestions

Drawing on our findings, we propose the following actions for policymakers, professional bodies, and business leaders in Albania to enhance environmental accounting and bridge the gap between private practices and public reporting:

Strengthen regulatory requirements for environmental reporting:

A decisive regulatory push is crucial to overcome the current inertia. Policymakers should **integrate EU-aligned sustainability reporting mandates into Albanian law** to prepare companies for the CSRD. This could start with phased requirements: for example, initially mandating that large companies and publicly listed companies include environmental and broader ESG information in their annual reports. Relevant authorities (such as financial regulators or the stock exchange) should establish clear guidelines on the structure and content of these disclosures, possibly by adopting the upcoming European Sustainability Reporting Standards as a template. Equally

important is to set up enforcement mechanisms: companies must understand that non-compliance will carry penalties. In short, explicit and mandatory reporting rules would create a level playing field and force companies to allocate resources to EA, addressing the shortcomings of the current voluntary approach.

Build capacity through education and training: To tackle the evident knowledge gap, targeted initiatives are needed to improve expertise in environmental accounting. **University accounting curricula should be updated** to include modules on sustainability accounting and reporting (as recommended by De Silva & Nilipour, 2024) so that new graduates enter the workforce with basic awareness. Professional organizations, such as the Institute of Authorized Chartered Auditors of Albania, ought to offer continuing professional development courses focusing on environmental accounting practices, standards, and tools. Government agencies and international donors could sponsor workshops and certification programs for corporate accountants and managers on implementing EA (covering skills like conducting materiality assessments, calculating carbon footprints, or preparing GRI-based reports). Our survey revealed significant interest from companies in receiving training and workshops; fulfilling this need will empower firms to act. Fostering partnerships between businesses and local universities or consultants for pilot projects can also provide hands-on experience. A “train-the-trainer” model could be effective: developing a core group of local experts who can then mentor multiple companies.

Increase stakeholder awareness and engagement: Over time, stakeholder pressure will grow if stakeholders themselves recognize and demand environmental accountability. Efforts should be made to raise public consciousness about corporate environmental impacts and the importance of sustainability reporting. For example, **NGOs and media in Albania could start benchmarking and publicizing such information as is available**, perhaps via an annual “sustainability transparency” scorecard or awards for companies, to spark competition and awareness. Government and civil society might also facilitate stakeholder dialogues or forums in which companies are required to respond to community or investor questions about their environmental performance. Educating investors is key: the financial sector (banks, pension funds) should be encouraged or required to consider ESG criteria in lending and investment decisions. If banks begin asking borrowers about environmental risk management, companies will take note. Additionally, international buyers of Albanian products (in industries like textiles or minerals) should be engaged to impose environmental standards in their supply chains, leveraging foreign stakeholder influence. The goal is to shift societal norms so that a company failing to report or manage environmental issues is seen as an outlier. In doing so, even absent immediate

laws, the “soft power” of stakeholders and legitimacy concerns can start to drive improvements ahead of or in parallel with formal regulations.

Encourage early adopters and showcase best practices: To motivate companies to exceed mere compliance, Albanian authorities and business associations should implement incentive programs for exemplary environmental accounting and performance. This could include **recognition awards or public honors** for firms that publish sustainability reports or achieve notable certifications (like ISO 14001 or other ESG benchmarks), thereby providing positive publicity and reputational benefits. The government might consider fiscal incentives (tax breaks, grants) for companies investing in green technologies or obtaining environmental certifications, to offset some of the upfront costs. Establishing a national sustainability reporting award or index could create competition and prestige around transparency. These measures signal that doing the right thing will be noticed and rewarded, helping shift management mindsets from viewing EA as just an expense to seeing it as an opportunity for positive visibility and innovation. Over time, as a few organizations gain recognition for their sustainability efforts, they can serve as leaders to inspire their peers, gradually transforming business culture to value sustainability.

Prepare for EU and international standards compliance: Given Albania’s trajectory toward EU integration, it is imperative that companies begin aligning with European and global sustainability frameworks now. Regulators and industry groups should actively disseminate information about the CSRD requirements and timelines so that companies are not caught unprepared. **Pilot programs** could be launched where a select group of volunteer companies attempt to produce “mock” sustainability reports in line with GRI or the European Sustainability Reporting Standards (ESRS), receiving expert feedback to learn from the exercise. Albanian regulators might also consider early adoption of international standards such as the ISSB’s IFRS S1 and S2 for sustainability disclosure, once they are available and suitably translated, to ensure global consistency in reporting. Additionally, efforts can be made to harmonize any local environmental reporting indicators (for instance, metrics companies must report to environmental regulators for permits) with the metrics that will be required for ESG disclosures, improving efficiency. The overarching aim is proactive preparation: companies that start aligning with these standards now will find the transition smoother when such reporting becomes mandatory, and they may even gain a competitive edge (as well as avoid a last-minute scramble as deadlines approach).

Improve data infrastructure and assurance: To support credible environmental accounting, collaboration between government and industry is needed to improve data collection and verification mechanisms. This might involve investing in environmental monitoring infrastructure, such as national

databases for emissions and pollution data and better laboratory facilities for environmental measurements, which companies can utilize. The environmental ministry and statistical agencies could develop sector-specific guidelines for measuring and calculating environmental indicators (like carbon emissions), providing companies with a standardized methodology. Furthermore, encouraging the development of a local sustainability assurance/audit market will enhance trust in reported data. This could mean training financial auditors in reviewing non-financial information or cultivating a niche of environmental audit professionals. In the long run, having third-party assurance for sustainability information (like financial audits) would increase its reliability and stakeholder confidence. Support from professional bodies or international partners might be leveraged to build this verification capacity.

Integrate environmental accountability into corporate governance: Companies should embed environmental accountability into their governance structures as part of modern risk management and strategy. Boards of directors ought to consider establishing sustainability committees or assigning explicit oversight responsibility for ESG issues to an existing committee or board member. We recommend that organizations designate a lead executive (e.g., a Sustainability Manager or an HSE Manager) if they haven't already, to drive internal EA initiatives and liaise with stakeholders. Including environmental performance on board agendas sends a signal of leadership commitment. Corporate executives in Albania are urged to view environmental accounting not as a mere compliance burden, but as a strategic component of contemporary management - one that can foster efficiency, innovation, and market access (particularly in EU markets). Companies that move early and adopt such governance measures can act as role models, demonstrating the business value of sustainability and encouraging others by their example.

By pursuing these recommendations, Albania can accelerate its progress in environmental accounting, transforming the current dichotomy of "public reporting versus hidden reality" into a system of transparent, trustworthy, and responsible business practice. Achieving this will require coordinated efforts by government bodies, educational institutions, civil society, and the corporate sector. The benefits - from improved environmental outcomes to enhanced international reputation and investor trust - will outweigh the effort. As global trends continue to favor corporate transparency and accountability, Albania's timely adaptation in this domain will support its sustainable development and EU integration goals.

Conclusion

This study examined the state of environmental accounting and reporting in Albania, highlighting a significant disconnect between what companies disclose publicly and what they practice internally. Albanian companies generally refrain from addressing environmental issues in public communications; only a handful provide any environmental data, and virtually none offer comprehensive sustainability disclosures. Internally, however, a notable minority of organizations have begun implementing environmental accounting practices or sustainability programs, even though these efforts remain mostly invisible externally. Our findings indicate that the absence of external pressure and regulatory mandates has led to complacency in transparency, a result consistent with stakeholder and legitimacy theory expectations. At the same time, some forward-thinking firms are taking voluntary steps, often driven by efficiency motives or international stakeholder demands, signaling an emerging recognition of sustainability's importance behind closed doors.

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References:

1. Alnaim, M., & Metwally, A. (2024). Institutional pressures and environmental management accounting adoption: Do environmental strategy matter? Sustainability, 16. [https://doi.org/10.3390/su16010100]
2. Ali, W., Wilson, J., & Husnain, M. (2022). Determinants/motivations of corporate social responsibility disclosure in developing economies: A survey of the extant literature. Sustainability, 14(6), 3474. [https://doi.org/10.3390/su14063474]
3. Arendt, R., Bachmann, T., Motoshita, M., Bach, V., & Finkbeiner, M. (2020). Comparison of different monetization methods in LCA: A review. Sustainability, 12. [https://doi.org/10.3390/su12041043]
4. Association of Chartered Certified Accountants (ACCA). (2012). ACCA. London: ACCA.
5. Belal, A. R. (2015). Social and environmental accountability in developing countries. In D. Jamali, C. Karam, & M. Blowfield (Eds.), Development-oriented corporate social responsibility (Vol. 1, pp. 153–166). Greenleaf Publishing.

6. Belal, A. R., & Owen, D. L. (2007). The views of corporate managers on the current state of, and future prospects for, social reporting in Bangladesh: An engagement-based study. *Accounting, Auditing & Accountability Journal*, 20(3), 472–494. [<https://doi.org/10.1108/09513570710748599>]
7. Benvenuto, M., Aufiero, C., & Viola, C. (2023). A systematic literature review on the determinants of sustainability reporting system. *Heliyon*, 9. [<https://doi.org/10.1016/j.heliyon.2023.e19078>]
8. Biracaj, R., Jupe, A., & Taka, A. (2014). Towards a model for environmental accounting: Case of Albania. In *Proceedings of the Sixth International Conference of Risk: Financial challenges of growth, sustainability and visionary progress of the regional economy* (pp. 197–208). Tirana, Albania.
9. Boiral, O., Heras-Saizarbitoria, I., Brotherton, M.-C., & Bernard, J. (2022). Ethical issues in the assurance of sustainability reports: Perspectives from assurance providers. *Journal of Business Ethics*, 178(3), 695–714. [<https://doi.org/10.1007/s10551-020-04609-w>]
10. Burritt, R. L., & Christ, K. L. (2016). The role of environmental management accounting in the transition to more sustainable business practices. *Sustainability Accounting, Management and Policy Journal*, 7(1), 4–25. [<https://doi.org/10.1108/SAMPJ-08-2015-0074>]
11. Chang, M., & Deegan, C. (2008). Motivations for organisational social and environmental disclosure in an emerging economy: Evidence from China. *Proceedings of the Asian Pacific Interdisciplinary Research in Accounting (APIRA) Conference*, Sydney.
12. De Silva, T. A., & Nilipour, A. (2024). Is the accounting curricula keeping up with sustainable development? *Accounting Education*, 1–29. [<https://doi.org/10.1080/09639284.2024.2310334>]
13. Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311. [<https://doi.org/10.1108/09513570210435852>]
14. Deegan, C. (2013). The accountant will have a central role in saving the planet... really? A reflection on “green accounting and green eyeshades” twenty years later. *Critical Perspectives on Accounting*, 24(7–8), 448–458. [<https://doi.org/10.1016/j.cpa.2013.04.004>]
15. Dissanayake, D., Tilt, C., & Xydias-Lobo, M. (2020). Mandatory corporate social responsibility reporting in an emerging economy: The case of the mining sector in Indonesia. *Journal of Business Ethics*, 152(3), 863–887. [<https://doi.org/10.1007/s10551-016-3268-3>]

16. Eljido-Ten, E. (2004). Determinants of environmental disclosures in a developing country: An application of the stakeholder theory. Swinburne University of Technology.
17. Elhossade, S., Zoubi, A., & Zagoub, A. (2022). Barriers of environmental management accounting practices in developing country. *Risk Governance and Control: Financial Markets & Institutions*, 12(4), 54–63.
18. European Union. (2022). Directive (EU) 2022/2464 of the European Parliament and of the Council on corporate sustainability reporting (Corporate Sustainability Reporting Directive). *Official Journal of the European Union*, L 322, 15–80.
19. Fasua, E. B., & Osifo, E. E. (2020). Environmental accounting and corporate performance: Evidence from the Nigerian oil and gas industry. *International Journal of Academic Research in Business and Social Sciences*, 10(9), 330–345. [<https://doi.org/10.6007/IJARBS/v10-i9/7756>]
20. Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
21. Gray, R. H. (2010). Is accounting for sustainability actually accounting for sustainability...and how would we know? An exploration of narratives of organizations and the planet. *Accounting, Organizations and Society*, 35(1), 47–62. [<https://doi.org/10.1016/j.aos.2009.04.006>]
22. Gray, R., & Bebbington, J. (2001). *Accounting for the environment*. Sage Publishing.
23. Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: A review of results, trends, theory, and opportunities. *Journal of Cleaner Production*, 59, 5–21. [<https://doi.org/10.1016/j.jclepro.2013.07.005>]
24. Henri, J.-F., & Journeault, M. (2010). Eco-control: The influence of management control systems on environmental and economic performance. *Accounting, Organizations and Society*, 35(1), 63–80. [<https://doi.org/10.1016/j.aos.2009.02.001>]
25. Hossain, M. (2019). Environmental accounting challenges of selected manufacturing enterprises in Bangladesh. *Open Journal of Business and Management*, 7.
26. IFRS Foundation. (2023). IFRS S1 general requirements for disclosure of sustainability-related financial information and IFRS S2 climate-related disclosures. IFRS Foundation.
27. International Federation of Accountants (IFAC). (2024). Emerging markets and sustainability information: Building trust in a “gray zone” (IFAC Policy Paper). IFAC.

28. ICG Research Team. (2020). Sustainability Reporting Assessment: ESG in Albania. ICG Research Team
29. Latif, B., Mahmood, Z., San, O., Said, R., & Bakhsh, A. (2020). Coercive, normative and mimetic pressures as drivers of environmental management accounting adoption. *Sustainability*, 12(11), 4506. [<https://doi.org/10.3390/su12114506>]
30. Nazari, J. A., Herremans, I. M., & Warsame, H. A. (2015). Sustainability reporting: External motivators and internal facilitators. *Corporate Governance*, 15(3), 375–390. [<https://doi.org/10.1108/CG-01-2014-0010>]
31. Qian, W., Rogers, R., & Zollmann, J. (2018). The influence of governance and culture on sustainability reporting in emerging markets. *International Journal of Disclosure and Governance*, 15(2), 87–105. [<https://doi.org/10.1057/s41310-018-0030-7>]
32. UNCTAD. (2023). Sustainability reporting in developing countries: Challenges and opportunities. United Nations Conference on Trade and Development. Retrieved from [<https://unctad.org/topic/sustainability-reporting>]
33. World Commission on Environment and Development (WCED). (1987). *Our common future*. Oxford University Press.

Appendix A: Data coding Process (Content Analysis)

Studies analyzing environmental elements published in the financial or non-financial reports of the surveyed economic entities have generally utilized coding or indexing as an analytical tool. Wiseman (1982) relied on this method aiming firstly to measure information objectively, and secondly to establish a numerical basis for comparing disclosures among entities. Published environmental information does not have a mandatory format or content requirement, but economic units are encouraged to refer to one of the generally accepted frameworks or standards such as GRI, CSRD, etc.

The environmental reporting indicators were divided into three main categories for analysis purposes:

1. General (contextual) indicators – showing the company's general environmental policy and approach. This includes elements such as:

- **Environmental policy:** the existence of an environmental policy declared by the company (a formal commitment to the environment in the annual report).
- **Environmental certifications:** whether the company is certified with ISO 14001 for environmental management, or similar standards.
- **Organizational structure for the environment:** defining responsibilities, mentioning a manager or committee responsible for environmental issues, or the company's capability to respond to environmental problems.
- **Environmental risk assessment:** identification of environmental risks associated with operations (risks of pollution, environmental accidents, etc.).
- **Compliance with legislation:** references to environmental laws and measures to comply with them (statements that the company adheres to environmental permits, domestic standards, or EU regulations).
- **Environmental legal issues:** mentioning any lawsuits, fines, or legal issues related to environmental breaches.

2. Financial-specific indicators (environmental information of a financial nature), reflecting the financial impact of the environment on the company. This category aims to uncover whether companies monetize environmental effects in their reports, including:

- **Environmental costs and provisions:** expenditures made for environmental protection or provisions created for environmental liabilities (funds for environmental rehabilitation after pollution).
- **Environmental capital investments:** capital expenditures for environmental projects or clean technology (investments in filtering equipment, renewable energy, etc.).
- **Environmental fines:** the financial value of any publicly disclosed environmental fines or penalties. (It is noteworthy that in practice, as will be seen, companies often hesitate to report fines or negative costs, which relates to a tendency to avoid "negative reporting".)

3. Environmental performance indicators, measured in physical units, showing concrete environmental results for the company. These included:

- **Greenhouse gas emissions:** tons of CO₂ emitted or mentions of emission reductions.
- **Water pollution:** wastewater discharges, water quality indicators, or treatment methods.
- **Use of natural resources:** consumption of energy, raw materials, water, etc., and any mention of efficiency measures.
- **Recycling and waste management:** quantity of recycled waste, recycling programs, treatment of hazardous waste, etc.

Each company was evaluated for each of the above indicators based on the intensity and quality of disclosed information. To ensure consistent measurement, a Likert scale from 0 to

4 points was used. This coding system refers to similar literature practices for converting qualitative data into quantitative (use of Likert scales in social accounting studies; see also Kirchner-Krath et al., 2024). Below are the criteria for each value on this scale:

- **0 points – Not mentioned at all:** The indicator is completely missing from the company's disclosures (the company nowhere mentions the issue of environmental policy).
- **1 point – Mentioned superficially:** The indicator is mentioned only very briefly or superficially, without details (a single sentence implying the existence of an environmental policy, without further clarification).
- **2 points – Discussed qualitatively:** A general qualitative description is provided about the indicator, without concrete numerical data (the company declares an environmental policy explaining its principles or mentions qualitative measures like "energy saving" without specific figures).
- **3 points – Quantitative information provided (non-financial):** Numerical data or quantitative indicators related to the indicator are provided, though not necessarily expressed in monetary values (annual CO₂ emissions are reported as X tons, or Y m³ water savings due to efficiency measures).
- **4 points – Detailed/monetary information provided:** The indicator is fully reported and/or expressed in financial or comparative terms, showing a high level of transparency (the company not only states the quantity of emissions but also the monetary cost of emission reduction schemes; or reports specific expenditures made for environmental purposes during the year).

This evaluation scale was consistent for all indicators, although in practice, not every indicator reached level 4 for the companies studied. For instance, the presence of an environmental policy could receive 0 points if completely missing, 1 point if only briefly cited, 2 points if qualitatively described, etc. Whereas an indicator like environmental fines would receive 4 points only if the company disclosed the monetary value of the fine in the report (which practically did not happen for any entity). By thus coding all collected information, an "environmental profile" was calculated for each company. This profile includes the points obtained in each category (general, financial, performance) as well as an overall total. The theoretical maximum rating for a company (if it received 4 points for all indicators) is approximately 60 points in total; whereas the actual scores of Albanian companies were far from this maximum, as will be explained subsequently.

Appendix B: Survey Instrument

Overview: The following questionnaire was used to survey managers of Albanian enterprises about their internal environmental accounting practices, awareness, obstacles, and attitudes toward environmental reporting. The survey is divided into five sections. Questions include multiple-choice, Likert-scale, and open-ended items, as detailed below.

Section I: General Company Information

1. Industry Sector: Which of the following best describes your company's primary industry?
 - Manufacturing (production/industrial)
 - Trade/Wholesale/Retail
 - Services (e.g., finance, IT, tourism)
 - Construction/Real Estate
 - Energy/Utilities
 - Transportation/Logistics
 - Other: please specify _____

2. Company Size (Number of Employees): Approximately how many employees does your company have?

- 1–50 (Small)
- 51–250 (Medium)
- >250 (Large)

3. Ownership Type: What is the ownership structure of your company?

- Privately owned (domestic)
- State-owned or public sector enterprise
- Foreign-owned or subsidiary of an international company
- Joint venture (mixed domestic and foreign ownership)
- Other: please specify _____

4. Respondent's Position: What is your position in the company?

(Open-ended – e.g., CEO, Financial Manager, Environmental/Sustainability Officer, etc.)

Section II: Environmental Accounting Awareness and Practices

5. Familiarity with Environmental Accounting: How familiar are you with the concept of “environmental accounting” and corporate sustainability reporting?

- Not at all familiar
- Have heard of the concept but have limited understanding
- Somewhat familiar (basic understanding of what it involves)
- Very familiar (knowledgeable or have direct experience with it)

6. Awareness of Frameworks/Standards: Which of the following sustainability accounting/reporting frameworks or standards are you aware of? (Check all that apply)

- Global Reporting Initiative (GRI) sustainability reporting guidelines
- ISO 14001 environmental management system standard
- EU Corporate Sustainability Reporting Directive (CSRD) requirements
- Integrated Reporting (< Framework)
- None of the above (not aware of specific frameworks/standards)
- Other: please specify _____

7. Training or Education: Have you ever received any training or education specifically on environmental accounting or sustainability reporting?

- Yes
- No

8. Regulatory Awareness: Are you aware of any laws or regulations (national or international) that require or encourage companies to report environmental or sustainability information?

- No, not aware of any such regulations
- Yes (please name or describe the regulation(s) if possible): _____

9. Current Internal Practices: Which of the following internal environmental accounting or sustainability practices are currently implemented in your company? (Check all that apply)

- We track environmental costs separately (e.g., costs of waste management, energy usage, environmental fees) as part of our accounting system.
- We set environmental performance targets or KPIs (e.g., goals for energy reduction, emissions, or waste minimization).
- We have an environmental management system or certification (e.g., ISO 14001 certification for environmental management).
- We measure environmental impacts (such as calculating our carbon footprint, water usage, or other sustainability metrics on a regular basis).
- We prepare internal environmental/sustainability reports for management or specific stakeholders (reports on our environmental performance that are not publicly released).

- We share environmental performance information with select external stakeholders (e.g., a parent company or major investors), even if it is not publicly disclosed.
- None of the above (we have not yet implemented any specific environmental accounting or sustainability practices internally).

Section III: Reporting and Disclosure Behavior

10. Public Environmental Disclosure: Which of the following best describes your company's public reporting of environmental or sustainability information? (Select all that apply)

- No public disclosure: We do not currently publish any environmental or sustainability information publicly.
- Policy/qualitative disclosure: We publicly communicate some general environmental information (e.g., an environmental policy statement or qualitative description of environmental efforts in our annual report or on our website).
- Quantitative data disclosure: We publish quantitative environmental performance data (e.g., metrics on emissions, energy or water use) as part of our annual financial report or other public reports.
- Standalone report: We have issued a dedicated sustainability or environmental report (a standalone report separates from the regular annual report).
- Other forms: We disclose environmental information in other ways (e.g., through press releases, newsletters, or as part of a parent company's sustainability report). (If other, please specify): _____

Section IV: Obstacles and Barriers to Environmental Accounting

11. Perceived Barriers: For each of the following potential obstacles, please indicate your level of agreement that it is a significant barrier to implementing environmental accounting or sustainability initiatives in your company. (Use a 5-point scale where 1 = Strongly Disagree and 5 = Strongly Agree.)

- Insufficient financial resources (budget constraints limit our environmental initiatives).
- Absence of legal requirements (no laws or regulations mandating environmental reporting or accounting for our type of company).
- Lack of stakeholder pressure (customers, investors, or the public are not pressuring us to improve environmental reporting or performance).
- Low management priority (top management does not see environmental accounting as important to our business goals).
- Inadequate expertise or guidance (lack of in-house expertise or external guidance on how to implement environmental accounting).
- Perception issue ("Green reporting" is viewed as just a PR/marketing exercise and not genuinely valuable for the company).

Section V: Managerial Attitudes and Future Plans

12. Perceived Benefits: Please indicate your agreement with the following statements about potential benefits of adopting environmental accounting in your company. (1 = Strongly Disagree, 5 = Strongly Agree)

- Cost reduction: Implementing environmental accounting practices could help reduce operational costs (e.g., via energy efficiency, waste reduction).
- Reputational gains: Adopting environmental accounting and reporting could improve our company's reputation or brand value among customers and partners.
- Long-term compliance/preparedness: Proactively engaging in environmental accounting will help our company be prepared for future regulations or market demands (it will likely become necessary for compliance or competitiveness).

13. Support and Incentives: Indicate your agreement with the following statements regarding factors that could help or encourage your company to adopt/enhance environmental accounting. (1 = Strongly Disagree, 5 = Strongly Agree)

- a. Guidelines/Training: Government or industry-provided training and clear guidelines on environmental accounting would make it easier for us to implement these practices.
- b. Financial incentives: Subsidies, tax incentives, or financial support for sustainability initiatives would motivate our company to invest more in environmental accounting.
- c. Expert support: Access to external expert advice or consulting on environmental accounting would help us adopt these practices.
- d. Partnership opportunities: Opportunities to partner with universities or external organizations on environmental projects would facilitate our implementation of environmental accounting.

14. Plans: Does your company have plans to improve or expand its environmental accounting practices or to begin publishing environmental/sustainability information soon?

- Yes, short term: We plan to initiate/improve these practices within the next 1–2 years.
- Yes, medium term: We plan to work on this in the next 3–5 years.
- Considering: We are considering or discussing such initiatives, but no definite plan yet.
- No concrete plans: We do not have any specific plans currently.

15. Additional Comments: Please provide any additional comments or observations regarding your company's environmental accounting practices or reporting (optional).

(Open-ended response: respondents could elaborate on any aspect of environmental accounting, challenges, or suggestions.)