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Article

Environmental Accounting in Albania: Challenges, Perceptions and Factors Influencing Implementation

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Abstract

The research investigates present-day environmental accounting practices in Albania together with organizational-level elements which determine their implementation. The research investigates Albanian business organizations particularly small and medium enterprises to understand their environmental accounting practices under limited institutional support. The research uses stakeholder theory and legitimacy theory and resource-based theory and institutional theory to understand how internal and external elements affect environmental practice adoption. The research uses ordinal logistic regression and OLS linear regression models to test four main hypotheses based on survey data from 151 Albanian non-financial companies and managerial perception analysis. The research findings demonstrate that enterprise size stands as the primary structural element which determines the extent of environmental accounting implementation but sector type and ownership structure and commercial focus do not show statistical significance. The study demonstrates that internal organizational factors which includes EA knowledge levels and sustainability attitudes and absence of implementation barriers leads to positive and significant results. The external forces which include regulatory requirements and social expectations and institutional backing fail to create direct effects on adoption rates. The research develops an empirical framework which demonstrates how internal and external elements influence environmental accounting readiness in Albania's developing economy. The research demonstrates that environmental accounting readiness in Albania requires better regulatory support and environmental education programs and specific training programs for small and medium enterprises.

Keywords: environmental accounting; sustainability; small and medium-sized enterprises (SMEs); Albania; internal factors; institutional pressures; sustainability reporting; CSRD; GRI; ISO 14001

Introduction

Businesses now face an urgent need to adopt responsible environmental management practices because climate change and resource depletion and industrial harm have become major concerns [1,2]. Environmental accounting (EA) serves as a fundamental tool which enables organizations to track and document environmental expenses and ecological effects resulting from their business operations [1]. The system extends conventional accounting by adding pollution expense tracking and waste management costs and clean technology investments and resource optimization advantages [1,4]. The literature shows that Environmental Accounting (EA) enables organizations to detect and disclose environmental expenses and advantages which standard accounting systems fail to capture [1,22]. The combination of EA with traditional accounting systems enables organizations to handle environmental expenses effectively while creating sustainable plans and tracking long-term operational success [22]. Research evidence demonstrates that organizations achieve specific advantages through EA implementation because it helps them decrease operational expenses by enhancing efficiency and removing waste [24] and build investor trust through enhanced transparency [25,26] and strengthen their corporate image while handling environmental risks [27] and achieving better financial results in the future [23]. Organizations that use environmental

accounting systems achieve better market opportunity detection and green product development which fulfills international standards and draws eco-friendly consumers [28,29]. Environmental reporting faces criticism because some organizations use it for superficial purposes or to create false environmental images (greenwashing) [30]. The majority of research indicates that environmental accounting serves as a complete system for sustainable development and acts as a vital element for organizations to achieve better long-term operational results [32,33].

Environmental accounting integration across the world has advanced through various initiatives which include the Global Reporting Initiative (GRI) and EU Sustainability Reporting Directive (CSRD 2022) and ISO 14001 standards that make environmental disclosure mandatory for more organizations [5,6]. The implementation of environmental accounting in developing nations including Albania faces challenges because of insufficient professional training and insufficient financial resources and public institution demands [7,8].

The practice of environmental reporting in Albania exists mainly as voluntary and irregular. The majority of Albanian businesses except large foreign-controlled companies and a few domestic enterprises do not disclose their environmental performance data through structured reports [9]. The current situation reveals an existing "green gap" which exists between sustainability principles that organizations support and their actual ability to execute sustainable practices. The research investigates environmental accounting implementation barriers through an assessment of organizational characteristics and employee perceptions about sustainability knowledge and institutional expectations. The research employed statistical methods to validate the four proposed hypotheses (H1–H4) which form the basis of our conceptual framework.

The research findings will create dual benefits for academic and practical applications. The research findings will help policymakers create effective policies and incentives which promote environmental accounting adoption. The research findings demonstrate the necessity for universities and accounting professionals to teach sustainability principles in their educational programs. The research findings offer businesses essential information to establish basic yet sustainable environmental reporting systems.

Theoretical Framework

The research uses four main explanatory theories to explain why and how businesses implement environmental accounting and sustainability reporting practices. The combination of these theories provides a complete framework to understand how internal company factors and external market elements affect environmental decision-making in businesses [1,2]:

Stakeholder Theory

Organizations need to fulfill their obligations by understanding and addressing the needs and expectations of their essential stakeholders who include shareholders and customers and employees and suppliers and community members and government entities. Freeman (1984) explains that organizations will adopt environmental practices when they experience pressure from stakeholders who demand better transparency and accountability practices [10]. The EA requires organizations to implement environmental reporting because stakeholders need access to this information. Research indicates that organizations which face extensive public scrutiny and media attention tend to disclose their environmental data because they want to protect their stakeholder relationships [8,11]. Large enterprises face the most intense public scrutiny because their public image attracts maximum attention from consumers and civil society organizations. Albanian companies that work with foreign partners or operate in international markets need to follow global reporting standards (GRI, EU standards) because they want to protect their reputation and maintain relationships with international business partners [8].

Theory of Legitimacy

A company needs to uphold social approval for its operations according to this theory [12]. A business entity gains legitimacy through its actions that match societal values and established norms [12]. Organizations use environmental reporting to demonstrate their responsibility to social actors while protecting their reputation from environmental incidents and scandals [13]. Environmental reporting functions as a tool for businesses to sustain their social agreement with society when public and regulatory forces become powerful [14]. The limited public awareness and media influence in Albania prevents most businesses from feeling responsible for environmental disclosure. Organizations only strongly pursue environmental transparency and accountability when their reputation faces a major threat from environmental mishaps or pollution incidents.

Source-Based Theory

The Resource-Based View theory explains that organizations achieve lasting competitive advantage through their unique internal resources and capabilities [15,16]. Organizations with better internal resources including technical expertise and eco-friendly technology and skilled personnel and dedicated leadership systems will achieve success in environmental accounting implementation [18]. The theory explains why large companies outperform SMEs because they possess greater financial resources and human capital to develop advanced environmental systems. The success of EA implementation depends on internal organizational capabilities to handle and integrate organizational changes rather than external pressures [3]. Organizations that establish environmental reporting as a core business practice will achieve enduring market leadership against their competitors [1].

Institutional Theory

Organizations follow external forces and professional standards which shape their operational conduct [17]. Organizations adopt new practices through three types of organizational pressures which include coercive forces from state regulations and normative forces from professional standards and imitative forces from market leaders. The absence of a complete sustainability reporting framework in Albania leads to environmental accounting practices being voluntary and disorganized [7]. The majority of Albanian businesses lack international connections so they do not need to adopt GRI or ISO 14001 standards for environmental reporting. The few companies that have international connections or foreign subsidiaries use GRI and ISO 14001 standards for environmental reporting but most local businesses do not feel any need to adopt these standards. The theory explains why Albania shows low implementation levels because organizations lack strong external forces that would drive them to adopt new environmental practices. The current situation makes local businesses more likely to stick with their current practices and perform isolated environmental reporting instead of developing their environmental reporting capabilities. Synthesizing the Theoretical Framework

The different theories examine separate aspects of the research phenomenon. The external social and normative forces which Stakeholder and legitimacy theories study lead organizations to disclose environmental information because they need outside validation to protect their public image [12,14]. Resource theory examines how internal organizational resources including skills and cultural elements determine environmental practice capabilities of firms [3,15]. Institutional theory demonstrates how external elements (regulatory pressure and market trends) interact with internal organizational characteristics to drive practice adoption [17].

The research hypotheses and survey instrument variables were developed from this combined theoretical framework which we used as our study foundation. The following section describes the empirical research methods we employed.

Study Methodology

Research Approach

The research design combines quantitative methods with qualitative exploratory approaches. The survey operates as the primary data collection tool while observations from respondent communications help explain and enhance statistical results. The survey aimed to determine environmental accounting implementation factors in Albanian businesses by understanding financial leaders and managers' perceptions and knowledge and their obstacles and performance expectations.

The research team performed a literature review to develop the questionnaire structure and essential elements for environmental accounting and sustainability reporting. The research team based their variable organization on international studies [3,8,18] before modifying them to fit the Albanian business environment. The questionnaire underwent testing with multiple field experts before distribution to the public who provided feedback about question clarity and essential concept definitions.

Sampling and Data Collection

The sampling was carried out using purposive sampling method, specifically targeting non-financial companies that are likely to have heard or experimented with elements of environmental accounting. Through professional networks and contacts with business associations, entities that met the inclusion criteria were identified. The main criteria were: (i) the company not to operate in the banking/financial sector (the financial sector was excluded due to the different nature of environmental impacts); (ii) the company operated in sectors of environmental relevance such as manufacturing, construction, services, trade or energy; and (iii) the respondent was a senior executive, financial director, or accounting expert of the company (so that he/she would be aware of reporting practices).

The data collection was carried out during the period June-September 2024. A total of 151 complete and valid responses were collected. The survey was distributed in two forms: online (via Google Forms) and with structured telephone interviews (when personal contact was deemed necessary to answer respondents' questions or ambiguities). Respondents were guaranteed anonymity and confidentiality of responses, noting that the data will only be used for research purposes and that the results will be reported in an aggregated manner.

Questionnaire Structure

The questionnaire was built into seven sections, with each section measuring different aspects of internal or external factors, in line with the hypotheses of the study:

Section I - Company characteristics: includes questions on size (number of employees), industry sector (manufacturing, services, etc., and whether the sector is considered "polluting" or not), form of ownership (domestic vs. foreign capital), and market orientation (domestic vs. exporting market only). These questions relate to the structural factors of the H1 hypothesis.

Section II - Knowledge and professional preparation: includes questions on the respondent's level of knowledge of environmental accounting concepts and reporting standards (GRI, CSRD/ESRS, ISO 14001, IFRS S1/S2), experience in trainings related to these topics, as well as a short test with objective questions to assess practical knowledge. This section contributes to the construction of the knowledge index (H2, H3).

Section III - Current Environmental Accounting Practices: includes questions that measure whether and how widely the company is currently implementing EA practices. The questions address: monitoring environmental costs, concrete measures taken (emission reduction, recycling, etc.), use of reporting standards (GRI), ISO 14001 certification, the inclusion of specific environmental items in the accounting system, and the existence of environmental reporting (internal or public). The data in this section are used to measure the current level of implementation and to construct the implementation index (dependent variable for H1 and H2).

Section IV - Management Attitudes and Organizational Culture: includes Likert assertions on the attitude of executives and the company's culture towards environmental responsibility (p.sh. whether senior executives support the EA initiative, whether there is a written environmental policy, etc.). These questions measure pro-environmental attitudes and internal engagement (for building the index for H2).

Section V - Perceived Benefits: includes a list of assertions on the potential benefits of implementing environmental accounting and sustainability reporting ("Environmental reporting helps reduce operational costs", "improves the company's image and reputation", "increases investor confidence", etc.). Respondents rated their degree of agreement with each assertion on a Likert scale of 1-5. The average of these ratings contributes to the Perceived Benefit Index (H3-dependent variable).

Section VI - Barriers and challenges: is divided into two sub-sections: (a) internal barriers - includes questions on perceived barriers within the company that hinder the implementation of the EA (lack of financial resources, lack of qualified staff, lack of knowledge or training, internal resistance to change, etc.), and (b) external barriers - includes obstacles related to the external institutional and commercial environment (lack of specific legal requirements, lack of fiscal or financial incentive from the state, lack of pressure from consumers or NGOs, market focus only on financial results, etc.). These questions were used to construct the Internal Barrier Index and the External Barrier Index (for H2 and H4).

Section VII - Expectations of institutions and willingness to adapt to new developments: this section explores the opinions of companies on the role that government, universities and professional associations should have in promoting EA (whether stronger laws, state guidelines, financial support or training from the state are needed; whether universities should produce professionals with knowledge of sustainability; whether professional associations should promote new standards). In addition, the aspects of readiness for implementation are also measured: whether companies feel ready to meet the new reporting requirements (in the framework of the EU CSRD directive) and what practical elements they currently have ready (available environmental data, written policies, certifications such as ISO 14001, dedicated funds, trained staff, etc.). This section serves to construct the readiness index (the dependent variable for H4) and independent variables for internal/external factors in H4.

All questions of an evaluative nature were measured on a 5-point Likert scale, from 1 = "Not at all agree" to 5 = "Strongly agree", while factual questions were codified numerically or binarily ("Yes" = 1, "No" = 0) as appropriate. This questionnaire structure provided a direct correlation between the questionnaire sections and the research hypotheses, making it easy to construct indexes and encode data for analysis.

Index Construction and Hypotheses

For testing the hypotheses of the study, several composite indexes were constructed based on the groups of questions above. The hypotheses (H1–H4) are presented below along with the definition of dependent and independent variables, as well as how to operationalize them:

- Hypothesis 1 (H1): The level of implementation of environmental accounting is influenced by the structural characteristics of the company.

Dependent variable (Y1): EA Implementation Index – represents the current level of environmental practices implemented by the company. This index was constructed from the Section III responses (questions 3.1, 3.2, 3.4, 3.5, 3.6), which measure whether the company: (a) monitors environmental costs and implements specific practices (list of 6 possible practices); (b) there are specific environmental items in the accounting (separate environmental expenses); (c) uses environmental/sustainability reporting standards (GRI, CSRD/ESRS, etc.); (d) has environmental certification (p.sh. ISO 14001); and (e) the degree of environmental reporting (missing, internal only, or public). For each company, an implementation index (on a scale of 0–100) was calculated as the average of the four main components: the number of practices implemented, the number of

environmental accounting items identified, the number of standards adopted, and the level of environmental reporting. Each component was normalized to 0–100 for ease of interpretation. For example:

$$\begin{aligned} \text{Index_Practice} &= (\text{Number of Selected Practices}/6) \times 100 \\ \text{Index_Environmental.voices} &= (\text{number of voices}/4) \times 100 \\ \text{Index_standard} &= (\text{Number of Selected Standards}/5) \times 100 \end{aligned}$$

The level of reporting was coded with 0 points (no reporting), 50 points (internal reporting) or 100 points (reporting made public). Subsequently, the total application index was calculated as the arithmetic average of the four sub-indices above:

$$\text{Implementation Index} = (\text{Index_Practice} + \text{Index_inveronmental.voices} + \text{Index_Standard} + \text{Index_Environmental Reporting}) / 4$$

Internal consistency testing showed that this index has a good reliability (Cronbach's $\alpha \approx 0.72$), which suggests that the included questions homogeneously measure the concept of "implementation level". Different categories for Y1 were created for further analysis: index < 20 was considered low implementation, 20–50 medium implementation, ≥ 50 high implementation (advanced adoption of EA).

Independent variables (X1–X4): Company size (measured by categories by number of employees: micro, small, medium, large); Industry sector (industry "high environmental impact" vs. "low"); Form of ownership (fully domestic capital vs. with foreign or mixed capital); and Trade orientation (oriented only to the local market vs. exporters). These four structural variables are discrete/categorical; for analysis were encoded with numerical or binary values as the case may be.

Predicted analysis: For H1, an ordinal logistic regression model was chosen, as the dependent variable Y1 (implementation level) was treated as a categorical variable sorted into three levels (0, 1, 2 for low, medium, high implementation). The general model can be described as:

$$\text{Logit}(P(Y \leq j)) = \alpha_j + \beta_1(\text{Size}) + \beta_2(\text{Sector}) + \beta_3(\text{Ownership}) + \beta_4(\text{Orientation}) + \varepsilon,$$

The estimated β coefficients are interpreted as the impact (for each unit of change) on the log-ratio of the chances that the company will have a higher level of implementation.

- Hypothesis 2 (H2): The level of implementation of the CM is influenced by internal factors (knowledge, attitudes, internal barriers) and external factors (external barriers, expectations towards the state/institutions).

Dependent variable (Y1): Application index (same as in H1).

Main independent variables:

- Knowledge Index (X5): combines three components from Section II: (i) self-assessed knowledge on the four main standards (ISO 14001, GRAY, CSRD/ESRS, IFRS) of sustainability reporting (average Likert 1–5 of relevant questions, normalized on a scale of 0–40 points); (ii) participation in the training related to the CM (binary question, which was coded with 0 points for "no" and 30 points for "yes" – representing ~30% of the index); and (iii) specific objective knowledge (score on a 3-question test from section II, each correct answer evaluated with 10 points, maximum 30 points). The sum of these components gives the total 0–100 knowledge index.
- Pro-Environmental Attitudes Index (X6): constructed from the Likert average of affirmations in Section IV (p.sh. leadership engagement, existence of internal environmental policies, supportive organizational culture). Values were normalized to 0–100.
- Internal Barriers Index (X7): derived from Section VI (a) questions on internal barriers. For each barrier (lack of funds, lack of staff, lack of expertise, etc.), respondents rated how large the barrier is on a scale of 1–5. To have an intuitive direction (higher value = fewer obstacles), the index was built by converting the scores to "perception of lack of barriers" (i.e., 5 means that obstacles are not a problem at all). The average was normalized to 0–100 points, with the highest value meaning that the company perceives internal barriers as minimal.
- External Barriers Index (X8): constructed similarly to X7, but from Section VI (b) questions on external barriers (p.sh. lack of legal requirements, lack of pressure from customers or the public, lack

of state incentives). Here, too, the values were transformed so that a higher index means that companies do not feel strong obstacles from outside.

– Index of Expectations towards the State and Institutions (X9): built from Section VII (questions on the need for strong laws, state guidelines, financial support, the role of universities and professional associations). This index (0–100) captures the "level of expectation" of companies that institutional actors should intervene.

Predictive analysis: Hypothesis 2 was also tested with ordinal logistic regression, where the dependent variable was the application index category (Y1, low/medium/high) and the independent variables were normalized X5–X9 indices. The model formula can be presented as:

$$\text{Logit}(P(Y \leq j)) = \alpha_j + \beta_5(\text{Knowledge}) + \beta_6(\text{Attitudes}) + \beta_7(\text{Barrierat_brendshme}) + \beta_8(\text{Barrierat_jashtme}) + \beta_9(\text{Expectations}) + \varepsilon.$$

This model allows the identification of internal/external factors that have a statistically significant effect on the probability that a company will have a higher level of implementation of EA.

- Hypothesis 3 (H3): The perception of benefits from environmental accounting is influenced by the demographic characteristics and individual knowledge of executives.

Dependent variable (Y2): Perceived benefit index – calculated as the average of the Likert ratings of assertions in Section V, normalized on a scale of 0–100 (where 0 means that the leader sees no benefits at all, and 100 means that he sees them maximum).

Independent variables: Age of respondent (X10, in years); Seniority in the company (X11, number of years of work in the current company); Position in the company (X12, coded by categories: 1 = Senior Executive, 2 = Financial Director (CFO), 3 = Other Management Position); Training in EA (X13, binary: has/has not received training, from Section II); Self-assessed knowledge (X14, Likert scale 1–5 of the question on the level of general knowledge, or normalized by the X5 index as needed); and Objective Knowledge (X15, objective test score from Section II, p.sh. number of correct answers).

Predicted analysis: H3 was tested with a linear regression model (OLS), as the dependent variable Y2 is continuous (index at 0–100). The basic linear model was:

$$Y(\text{Perception of benefits}) = \alpha + \beta_{10}(\text{Age}) + \beta_{11}(\text{Years In The Company}) + \beta_{12}(\text{Position In The Company}) + \beta_{13}(\text{Training}) + \beta_{14}(\text{Self-Assessed Knowledge}) + \beta_{15}(\text{Objective Knowledge}) + \varepsilon$$

Here, the β_{12} for the position was evaluated with the effect of the categories "CFO" and "other" versus the basic category "general manager". The coefficients of this model show the average effect of each factor on the perception of benefits, keeping the other factors constant.

- Hypothesis 4 (H4): The willingness to implement environmental accounting (and sustainability reporting) depends on the organization's internal and external factors and challenges.

Dependent variable (Y3): Readiness index – this index (0–5) was created by combining: (i) the average of Likert ratings from Section VII on existing internal capacities (question points 4.7 assessing whether the company currently has ready elements such as environmental data, policies, funds, staff, ISO 14001, etc.), (ii) the average of assessments from questions 4.2 (management engagement and internal plans for EA), and (iii) points from question 4.6 that directly asked "If you were asked to report sustainability tomorrow, would your company meet this obligation?" (where the answer "Yes" was rated 5, "I don't know" 3, "No" 1). The formula of the final index was:

$$\text{Readiness Index} = [(\text{Average of 4.2}) + (\text{Average of 4.7}) + (\text{Score of 4.6})] / 3$$

resulting in an average value of 1–5. This was then categorized (for the regression analysis) into: 1–2 = low alertness, 2–4 = medium alertness, 4–5 = high alertness (levels coded as 1, 2, 3).

Independent variables: Based on Sections IV, V, VI, and VII, the following were constructed:

– Internal factors (X16): the average of affirmations from questions 4.1 and 4.2 that measure positive internal beliefs (p.sh. management's belief in the benefits of EA, plans for resource allocation for EA). A higher value indicates a more supportive and proactive organizational culture towards EA.

– External factors (X17): the average of assertions from questions 4.2 and 4.3 that measure perceived pressure from outside (p.sh. whether stakeholders expect reporting, whether similar companies are reporting, as well as expectations for legal intervention by the state, financial support,

guidance, etc.). A higher value implies that the subject feels that the external environment is "requiring" reporting (or that it will soon be asking for it).

– Internal challenges (X18): the index of internal barriers (similar to X7 above, from Section VI (a)), which measures unresolved internal barriers. A high value here means few internal challenges (i.e. strong internal capacities), while low means many internal challenges.

– External challenges (X19): the external barrier index (similar to X8, from Section VI (b)), which measures gaps in the external environment (p.sh. lack of institutional support). Here, too, the index was shaped so that higher value = small absence of external challenges (i.e. an external supportive environment).

Predicted analysis: H4 was tested with ordinal logistic regression (similar to H1 and H2), as the dependent variable Y3 (readiness categorized into low/medium/high) is ordinal. Model:

$$\text{Logit}(P(Y \leq j)) = \alpha_j + \beta_{16}(\text{internal_factors}) + \beta_{17}(\text{External_factors}) + \beta_{18}(\text{internal_challenges}) + \beta_{19}(\text{External_challenges}) + \varepsilon$$

A positive coefficient for X16 will indicate that the increase in internal factors (their strengthening) increases the chances of a higher level of readiness, while a negative coefficient for the X19 it will mean that increasing external challenges (or decreasing external support) decreases the chances of high readiness.

Data Processing and Statistical Techniques

The collected data were codified and analyzed using the statistical packages SPSS 28 and Stata 17. The following procedures were applied:

- Descriptive analysis: to summarize the basic characteristics of the sample and key variables (means, standard deviations, distributions of Likert responses, etc.). This helped to understand the average level of adoption of EA and perceptions towards it.
- Reliability tests: Cronbach's Alpha coefficients for constructed indexes (implementation index, knowledge index, perception indexes) were calculated, to assess the internal consistency of the component questions. As mentioned, alpha values resulted in the range of 0.7–0.8 for most indices, indicating satisfactory reliability.
- Correlations: the Spearman coefficient (due to the often nonlinear/ordinal nature of variables) was used to examine the initial relationships between key variables (between size and level of implementation, between knowledge and perception of benefits, etc.).
- Multivariate regressions: as detailed above, ordinal logistic regression models were applied for H1, H2, and H4, and the OLS linear regression model for H3. For logistic models, β coefficients, standard errors, test statistics (Wald z or χ^2) and p-values were reported, and odds ratios (OR) were calculated for a more intuitive interpretation of the effects. For the OLS model, coefficients, standard errors, t-values, and p-values were reported, along with the fit measure R^2 .
- Diagnostics: model assumptions were checked. For ordinal logistic models, the coefficient proportionality assumption (Brant test) was tested to ensure that the ordinal model was valid. For the OLS model, the normality of the residues and the acceptability of their variance were checked. Overall, the models met the standard criteria and no major breaches of the assumptions were identified.

The main results of the analysis are presented below, structured according to research hypotheses.

Study Results

Results for Hypothesis 1 (H1)

Hypothesis 1: The level of implementation of environmental accounting is influenced by the structural characteristics of the company. To test this hypothesis, the model of ordinal logistic regression was applied, where the application level (coded 0, 1, 2) served as a dependent variable, while the structural factors – size, sector, ownership and trade orientation – served as independent variables. Table 1 presents the estimated coefficients for each factor, along with standard error (S.E.), Wald statistics (z-values in this case), p-values, and odds ratios (OR).

Table 1. Ordinal logistics model for H1 (dependent variable: implementation level of EA).

Variabla	Coefficients (β)	H.E.	Forest (z)	P-value	OR = e^β
Company Size	0.514	0.221	2.325	0.020*	1.67
Sector (polluting vs. non-polluting)	-0.052	0.332	-0.156	0.876	0.95
Ownership (foreign vs. domestic)	-0.730	0.476	-1.535	0.125	0.48
Trade orientation (international)	0.319	0.340	0.937	0.349	1.38

Note: *p < 0.05; **p < 0.01.

Interpretation: The above results show that company size is the only structural factor with a statistically significant impact on the level of implementation ($\beta = 0.514$, $p = 0.020$). The positive coefficient implies that larger companies have significantly higher chances of implementing EA practices at a more advanced level. Specifically, according to our model, moving the company from one size category to the downstream one increases about 1.67 times the chances that it will be at a higher level of implementation (OR = 1.67). This finding partially supports Hypothesis 1, confirming the importance of size as a prerequisite for EA adoption, while other structural factors – sector, ownership, and commercial orientation – were not significant ($p > 0.1$ for each).

The lack of effects for the sector suggests that, in our sample, companies in typically "polluting" sectors (production, construction) did not necessarily show a higher or lower level of implementation than others, when checking for size. Also, foreign ownership did not emerge as a decisive factor – although it was expected that foreign-owned or mixed companies would bring more advanced management practices (thanks to international experience), the estimated negative coefficient (-0.73) implies that in Albania's conditions this effect is not significant. The (international) export orientation had a positive but not significant coefficient ($p = 0.349$), which shows that being oriented towards foreign markets does not guarantee higher adoption of the EA.

In practical terms, this result reinforces the idea that large enterprises, due to greater financial and human resources as well as public exposure, are better able and motivated to report environmental issues. The finding is in line with previous studies that have identified size as a catalyst for sustainability [3,8]. Small enterprises, on the other hand, are often hampered by a lack of internal capacities to address environmental issues.

Results for Hypothesis 2 (H2)

Hypothesis 2: The level of implementation is influenced by internal factors (knowledge, attitudes, internal barriers) and external factors (external barriers, expectations towards institutions). For testing this hypothesis, a second ordinal logistic model was constructed, where the dependent variable was again the implementation index (Y1), while the independent variables were the indices described earlier: knowledge (X5), attitudes (X6), internal barriers (X7), external barriers (X8) and expectations towards the state/institutions (X9). Table 2 summarizes the model results for H2.

Table 2. Ordinal logistics model for H2 (dependent variable: implementation level of EA).

Variabla	Coefficients (β)	S.E.	Forest (z)	P-value
Knowledge on EA	0.025	0.007	3.350	0.001**
Pro-environmental attitudes	0.025	0.010	2.523	0.012*
Internal barriers (high value = few obstacles)	0.030	0.013	2.251	0.024*
Perceived Benefits	-0.013	0.009	-1.381	0.167
External barriers	-0.012	0.012	-0.967	0.325
Expectations towards the state	0.002	0.012	0.183	0.853
Expectations towards academic inst.	-0.003	0.014	-0.204	0.836

Note: *p < 0.05; **p < 0.01.

Interpretation: The results show that three internal factors have a statistically significant (and positive) impact on the level of implementation of EA: (1) Level of knowledge ($\beta = 0.025$, $p = 0.001$) – companies where key staff have more knowledge of sustainability standards and concepts are more likely to implement EA practices; (2) Pro-environmental attitudes ($\beta = 0.025$, $p = 0.012$) – an internal culture that values environmental issues and is supported by leaders drives implementation; and (3) Lack of internal barriers ($\beta = 0.030$, $p = 0.024$) – the less perceived internal barriers (p.sh. lack of funds or staff) the higher the adoption rate. All three of these findings were expected and confirm the importance of internal capacities and will as a driving force of environmental accounting.

On the other hand, the external factors involved in the model – perception of external benefits, external barriers and expectations towards the state/institutions – were not significant (p-values 0.167, 0.325 and >0.8 respectively). This suggests that in Albania's current conditions, the main drivers come from within the organization, while the pressures or expectations of the external environment do not yet have motivational power. In other words, companies that implement EA are doing so mainly on the basis of their internal beliefs, knowledge and skills, and not because they are forced or incentivized by third parties. This score aligns with the literature on developing countries, where the institutional vacuum makes sustainability initiatives dependent on "internal champions" [7,17].

Interestingly, the Perceived Benefits Index (X9) did not turn out to be significant – the fact that a manager believes that EA brings benefits (such as cost reductions or reputational growth) does not translate directly into action without having the right knowledge, attitude, or capacity within the company. This underscores that awareness of the benefits is necessary, but not sufficient, to move into practical implementation.

Results for Hypothesis 3 (H3)

Hypothesis 3: The perception of EA benefits is influenced by the demographic characteristics and knowledge level of the leaders. This hypothesis was tested with the OLS linear model, where the dependent variable was the Perceived Benefit Index (Y2). Table 3 presents the linear regression results for H3.

Table 3. OLS linear model for H3 (dependent variable: index of perceived benefits).

Variabla	Koef.	S.E.	t	P-value
Constant	3.139	0.540	5.811	<0.001**
Age	0.029	0.012	2.401	0.018*
Seniority in the company	-0.461	0.153	-3.014	0.003**
Position: CFO	-0.529	0.213	-2.481	0.014*
Position: Other	-0.210	0.302	-0.694	0.489
Training (yes/no)	-0.250	0.288	-0.867	0.388

Self-Assessed Knowledge	0.181	0.133	1.367	0.174
Objective knowledge	0.003	0.003	1.011	0.314

Note: *p < 0.05; **p < 0.01.

Interpretation: Of the factors involved, the age of the driver has a positive and significant effect ($\beta = 0.029$, $p = 0.018$). Older executives tend to appreciate the benefits of EA more, perhaps due to their longer professional experience and a longer-term perspective linking environmental practices to business sustainability [18]. In contrast, greater seniority at the same company is associated with a more skeptical perception of benefits ($\beta = -0.461$, $p = 0.003$). This implies that managers who have many years in the current company may be more resistant to change and see new initiatives (like EA) more as a cost or challenge than an opportunity. It is possible that they are used to the status quo and have a more conservative approach.

The position of the respondent also turns out to be important: individuals with the position of Financial Director (CFO) have a significantly lower estimate of EA benefits compared to general directors ($\beta = -0.529$, $p = 0.014$). This aligns with the expectation that finance executives focus more closely on short-term financial indicators and are more skeptical of investments in the non-financial field [8]. Other managerial (non-CFO) positions showed no significant difference from general directors ($p = 0.489$).

Of the skills/capacity variables: training participation and knowledge level (both self-assessed and objective) did not result in a significant statistical effect ($p > 0.1$). This suggests that, within this model, whether a manager has received training or declares high knowledge, does not make a significant difference in how he/she perceives the benefits of EA. Possibly, the influence of these variables may be mediated by other factors (p.sh. age and experience play a greater role, as we have seen).

Overall, the linear model explained about 14% of the variation in benefit perception ($R^2 \approx 0.14$). Although this level of explainability is relatively moderate, it shows that certain demographic and professional characteristics are essential to understanding executives' attitudes towards EA benefits. In particular: (1) older executives have more positive perceptions – a finding that aligns with theoretical arguments that experience and exposure to regulatory trends make a manager more aware of the importance of sustainability; (2) executives with long careers in the same company show greater skepticism, perhaps because they strongly identify with existing ways of working and see EA as a potentially difficult change; and (3) CFOs are more skeptical than other executive colleagues, perhaps because they don't immediately see the connection between environmental reporting and short-term financial performance [8]. Thus, Hypothesis 3 is partially supported: demographic factors (age, role, seniority) had an impact, while factors such as training and self-knowledge level did not have a direct effect.

Results for Hypothesis 4 (H4)

Hypothesis 4: Readiness for implementation is influenced by internal and external factors and challenges. Since readiness (Y3) was measured as a categorical variable (low, medium, high readiness), ordinal logistic regression was used again. Table 4 presents the model results for H4.

Table 4. Ordinal logistics model for H4 (dependent variable: readiness for implementation).

Variabla	Koef. (b)	S.E.	Forest (z)	P-value
Internal factors	0.824	0.251	3.279	0.001**
External factors	0.167	0.283	0.587	0.555
Internal challenges	-0.214	0.336	-0.637	0.525
External challenges	-0.716	0.314	-2.285	0.022*

Note: *p < 0.05; **p < 0.01.

Interpretation: The H4 model confirms that internal factors have a positive and very important impact on the readiness of units to implement EA ($\beta = 0.824$, $p = 0.001$). This coefficient means that firms that have an internal supportive culture, motivated management and concrete plans for EA, are significantly more willing to respond to new requirements and implement changes. Practically, increasing the internal factor index by 1 unit increases the chances of a higher level of readiness by a factor of around $e^{0.824} \approx 2.28$ (if converted to OR). This finding is in line with theoretical and practical expectations: internal organizational strength (knowledge, commitment, action plans) is an important prerequisite for being ready for the challenges of environmental accounting.

Meanwhile, external challenges result in a negative and statistically significant effect ($\beta = -0.716$, $p = 0.022$). This means that the more there is a lack of incentive or support from the external environment (p.sh. the greater the legal vacuum, the lack of incentives, the market apathy), the lower the willingness of firms to take self-initiative steps in environmental accounting. In other words, the lack of favorable external conditions acts as a deterrent: companies are reluctant to invest in this direction when they see that "no one is looking for it" and that there is no support from the government or the market. This result is very significant for the Albanian context, confirming that in the current climate, firms do not feel pushed from abroad and therefore, even those with good will can step down.

External factors (X17) themselves had a positive but unequivocal coefficient ($p = 0.555$), indicating that even when managers feel some pressure or expectation from outside, this is not enough to increase readiness in a statistically inherent way – perhaps because that pressure is still not enough or is too diffuse. Internal challenges (X18) had a non-significant negative coefficient ($p = 0.525$), which can be explained by the fact that X16 (internal factors) has already captured most of the internal variation and the inclusion of the internal challenges index does not add much information (as it is negatively correlated with X16).

To sum up, Hypothesis 4 finds partial support: internal favorable factors (skills and internal commitment) significantly increase readiness for implementation, while major external challenges reduce it. These findings underscore the current nature of the EA process in Albania: it is "driven from within" (by proactive companies that want to do it themselves) and "hindered from the outside" (by the lack of adequate institutional conditions) [7].

Discussion

The above results provide a clear overview on the current development of environmental accounting in Albania and the factors influencing its implementation. Overall, the study confirms that the country is in an initial phase of institutionalization of environmental accounting, where the influence of internal factors prevails over that of external pressures. These findings are in line with international studies on developing countries, where the lack of a strong regulatory framework and weak societal pressure make the implementation of sustainability practices largely depend on individual initiative within firms [7,20].

Dominance of Internal Factors

The research establishes internal elements as essential factors which determine how organizations implement Enterprise Architecture. The results from Hypothesis 2 established that knowledge and attitudes and the absence of internal barriers determine the extent of implementation. The research supports previous studies which demonstrate that organizations need proper internal resources and cultural environment to establish enduring sustainable practices [3,18]. The resource-based theory states that organizations with enough resources including trained staff market shows that companies need enough domestic resources to advance their environmental initiatives because external pressure remains minimal.

The and information systems and motivated leadership can transform EA into business competitive advantage [15]. The Albanian success of large enterprises depends heavily on their managers and executives who lead these organizations. The research findings from H3 indicate that

leaders who have more experience and are older tend to support HR initiatives better because they understand the growing significance of environmental matters and the potential dangers of environmental disregard. The research of [18] and [8] supports our findings because they demonstrate that executive experience and strategic thinking directly influence their perception of benefits. The financial department of our enterprises maintains its focus on short-term monetary performance because their CFOs remain unconvinced about EA benefits. The research supports [13] who discovered that finance professionals' absence from sustainability work creates an institutional barrier [19]. The environmental agenda at the firm requires financial mindset support because finance department members need to understand sustainability investments bring long-term value.

Lack of Institutional Pressures

The research data shows that external forces do not affect the current stage of development. The H2 results demonstrated that external barriers and state expectations failed to produce any significant impact on the model. The research findings from H4 established that external obstacles which include insufficient legal frameworks and absent performance-based rewards create obstacles for organizations to prepare for implementation. The research findings support institutional theory because new practice adoption requires structured institutional pressures which include legal and professional and cultural elements [17]. Organizations lack motivation to adopt changes because they do not experience any external forces that drive them toward conformity.

The absence of particular legal requirements for sustainability reporting in Albania together with insufficient public and media awareness creates an environment where businesses do not experience environmental transparency pressure. The economic focus on short-term gains in transition economies leads to environmental objectives being ignored by businesses [7]. The current situation restricts the imitation process because foreign capital-backed companies that use GRI and ISO 14001 standards do not create market-wide changes because there exists no regulatory force that would establish industry-wide standards. The absence of requirements and reputational threats makes environmental legitimacy unimportant for businesses according to legitimacy theory [12,13].

The institutional void creates a self-reinforcing pattern because organizations fail to disclose information which reduces public understanding and weakens the need for environmental transparency. The government lacks motivation to enhance legal requirements because public awareness remains low. The results from H4 demonstrate that organizations without external rewards or incentives show the lowest willingness to take voluntary action. The research findings demonstrate this pattern through their results which show that organizations without external rewards or incentives tend to report the least.

The observed in Albania exists as a widespread pattern across different countries. Research conducted in developing nations demonstrates that businesses only start sustainability reporting when they face mandatory legal requirements or encounter substantial public awareness about their activities [34,35]. The World Bank conducted an analysis which demonstrated that businesses in numerous developing nations only start their transition when regulations become specific and enforceable [36]. The Balkan countries demonstrate this pattern because they have not established complete sustainability reporting requirements which results in insufficient environmental disclosure from private sector organizations. The non-financial reporting requirement in Serbia for large companies failed to achieve success because of insufficient enforcement which led companies to treat it as a paper-based requirement. The experience demonstrates that legal requirements without proper enforcement mechanisms fail to achieve their intended purpose [36]. Research indicates that businesses need sustained external pressure from legal authorities and social forces and investor groups to adopt sustainability practices [34,35].

The research indicates that environmental accounting will stay confined to a few early adopters until Albania develops new policies which follow EU approximation guidelines.

The Contrast Between Large Firms and SMEs

The research findings from Hypothesis 1 demonstrated that large businesses operate differently than small and medium-sized enterprises. The research results showed that enterprise size stands as the single structural element which produces noticeable results because large businesses use more environmental practices than small businesses do. The research supports stakeholder theory predictions and [2] findings which demonstrate that big companies face higher public scrutiny and stakeholder expectations thus they feel stronger pressure to disclose information [2,10].

The companies with top environmental performance in Albania consist mainly of foreign subsidiaries and former state-owned enterprises and businesses that export their products. These organizations access international business practices more easily because they want to preserve positive foreign business relationships which drives them to adopt environmental reporting systems. The manufacturing sector companies in Albania that export to the EU market obtain ISO 14001 certification because their international business partners demand it.

The domestic SMEs face multiple systemic barriers which prevent them from investing in clean technology because they lack funding and specialized staff and resources for consultant services and economic and regulatory incentives for environmental action. The majority of small and medium-sized enterprises view Environmental Accounting as an unneeded additional requirement. The researchs show that SMEs in similar markets will not adopt environmental reporting unless national policies create incentives for them to do so [7,20].

The current state of environmental accounting in Albania shows that good practices exist only in specific large companies and exposed businesses yet the majority of businesses remain uninvolved. The existing "islands" of good practice have not created a positive impact on the entire sector or economic system. The implementation of support systems will connect large companies that demonstrate best practices with small and medium enterprises which require assistance to adopt these practices.

Innovation and academic contribution

The research adds multiple valuable insights to environmental accounting research which focuses on Albania's transition market economy.

- Empirical and methodological innovation: The research investigates environmental accounting in Albania through an integrated model which tests four specific hypotheses. The research employs ordinal logistic regression with application level dependent variables which represents an uncommon method in this field because most foreign studies use binary (yes/no) models or qualitative analysis. The model unites structural elements with perceptual variables and preparedness indicators to deliver a complete understanding of the research phenomena. The development of new indices including the knowledge index with its components and the CSRD readiness index represents a significant methodological advancement. The research enables scientists to evaluate complex institutional readiness through standardized assessment methods which work for multiple studies including this one [9].
- Conceptual innovation: The research combines stakeholders theory with legitimacy theory and resources theory and institutions theory to analyze the obtained results. The research field lacks studies which use multiple theoretical frameworks because most studies focus on single theories. The synchronized application of these theories enables us to achieve deeper insights because we discover that institutional theory explains why external factors do not affect companies and resource theory explains why only large companies show progress [15,17]. The research combines multiple theoretical frameworks to develop an integrated framework which researchers can apply to study other transitional economies across the Balkans and beyond.

- Practical contribution: The research establishes specific intervention points which will help Albania advance its environmental accounting practices. The research outcomes establish specific policy development paths which various stakeholders including government institutions and universities and professional organizations and business entities need to follow. The study reveals that external institutional pressures play a crucial role in preventing EA adoption thus policymakers should focus on implementing institutional reforms. The research findings about financial manager skepticism and SME capacity deficiencies indicate that universities and professional associations should create training programs for these areas. The research provides specific recommendations which are presented in the following section.

Conclusions and Recommendations

Key Conclusions

The research delivers a complete assessment of environmental accounting implementation status and influencing factors in Albanian businesses through empirical data analysis and theoretical examination of the four explanatory models. The research reveals that Albania exists at the beginning of environmental accounting integration because its implementation remains restricted to large businesses while small and medium enterprises face significant challenges. The research reveals the following essential results:

The company size stands as the primary structural element which determines the extent of environmental accounting implementation (H1). The research shows that large businesses implement environmental accounting practices at higher rates than smaller businesses. The research findings show that company size determines environmental accounting adoption because it provides financial resources and expert knowledge and international market exposure.

The research established that internal elements which include EA knowledge levels and positive management attitudes and absence of internal barriers function as the primary drivers for environmental practice adoption (H2). Organizations that dedicate resources to employee training and develop sustainability-focused organizational culture achieve superior results in environmental accounting implementation.

The research findings show that external factors including regulatory pressures and institutional support and market demands fail to create substantial effects on adoption because Albania lacks a strong institutional framework. The absence of strong external signals and incentives prevents companies from implementing environmental accounting because of this situation which leads to slow and irregular progress.

The way drivers from different age groups view EA benefits depends on their demographic characteristics (H3). The executive age group demonstrates better sustainability perceptions because they maintain extended business perspectives and enhanced social accountability. The financial management team members including CFOs express doubts about sustainability initiatives because they concentrate on short-term financial performance indicators.

The readiness for implementation (H4) depends heavily on internal company capabilities and external obstacles because organizations with strong internal commitment and external support tend to adopt EA initiatives better. The current implementation process depends on internal company motivation but faces obstacles because of insufficient external support.

The research demonstrates that environmental accounting progress in Albania needs simultaneous development of internal capabilities and external environmental elements which include both firm-level capacity building and external incentive systems.

Theoretical and Practical Implications

The research adds value to existing theoretical knowledge about Economic Accounting (EA) in economies undergoing transition. The study proves that an integrated theoretical framework which unites stakeholder perspectives with legitimacy concepts and resource availability and institutional frameworks produces valid results [10,12,15,17]. The research findings receive balanced interpretation through this approach because internal factors lead the way according to source theory yet legitimacy and institutional theory show that external pressures are currently absent which strengthens internal factors. The theoretical combination enables researchers to understand that Albanian business conditions stem from institutional weaknesses present in the current context.

The research findings demonstrate that Albanian businesses require institutional backing together with regulatory support to achieve progress in this field. The present situation shows that voluntary sustainability initiatives from large companies exist independently from a national framework which supports and rewards such efforts. The government should recognize sustainability reporting as a field where public policy intervention will produce significant results because most businesses including SMEs need external motivation through legal requirements or financial benefits to start their own sustainability initiatives.

Universities and academic institutions must recognize their responsibility to train future finance and accounting professionals who will work in a world where sustainability reporting has become essential. The implementation of EA and ESG education in universities together with professional development programs for current workers will build sufficient human resources for this field.

Professional associations including the institute of accountants and chambers of commerce should function as connectors between government initiatives and business organizations to develop local sustainability reporting plans and distribute successful practices and establish platforms for businesses to exchange sustainability reporting experiences.

The research establishes that EA development depends on domestic "champions" who will lead progress when external intervention remains insignificant. The process remains unpredictable while it moves at a slow pace. The following specific recommendations exist to create structural changes which will speed up this process and make it accessible to all economic sectors.

Recommendations

- a) The government together with policymakers need to take the following actions:
 - The government needs to create new Corporate Sustainability Reporting Directive (CSRD 2022) requires domestic implementation through the integration process legal frameworks which will force major polluting businesses to disclose their environmental and social performance data. The established framework enables businesses to work together instead of treating Environmental Accounting (EA) as an unusual practice.
 - The development of practical guidelines together with national standardization efforts will help businesses create sustainability reporting models and environmental impact indicators. The new guideline for sustainability reporting will serve as a tool for businesses to understand how to create environmental statements through expert collaboration and professional association involvement.
 - The government should create. The incentives will help businesses understand that environmental accountability brings actual business advantages. A competitive funding program should economic and fiscal benefits which include tax reductions and grants for businesses that adopt clean technologies and publish sustainability reports be established to provide financial backing to organizations which create the most effective environmental management strategies.
 - The government needs to create a National Center for Sustainability which will serve as a dedicated platform for sustainability reporting promotion and monitoring. The center will deliver periodic training sessions to businesses while gathering national data about private sector environmental performance and creating sustainability reports for public disclosure.

b) The following actions should be taken by universities together with their academic institutions:

- The educational system needs to add specific subjects about environmental accounting and sustainability reporting and green finance to its existing economics and finance and accounting programs. The upcoming generation of financial experts will learn essential environmental knowledge through these educational programs. The current educational programs at Albanian universities lack proper instruction about these essential subjects.

- The organization should create continuing professional development (CPD) training programs which teach professionals about IFRS S1 & S2 sustainability reporting standards and GRI guidelines and environmental accounting methods including Material Flow Cost Calculation (MFCA). The organization should work with professional associations to deliver these training programs.

- The establishment of an ESG research center at leading universities should begin scientific investigations about corporate environmental practices in Albania. The research center will generate essential data which will help both the government and industry develop better policies. The research project should track Albanian company voluntary disclosure rates annually while determining obstacles and developing recommendations for different business sectors.

- The program brings together students from finance and accounting programs to work with businesses on creating environmental statements and basic sustainability reports. The partnership benefits both parties because companies obtain affordable expert help while students develop practical skills and environmental business awareness.

c) The following actions should be taken by professional associations together with businesses:

- The Institute of Chartered Accounting Experts together with other accounting associations should create local standards which adapt international reporting guidelines to Albanian business needs. The organization should create practice manuals and environmental statement templates which members can use for their sustainability reporting. The guidelines need to follow GRI and ISSB standards to ensure Albanian businesses use consistent reporting methods that match international standards.

- Major businesses with foreign ownership or experience working under international standards should act as environmental accountability champions to support local small and medium enterprises. The sectoral associations organize training sessions and seminars which enable smaller businesses to learn from leading companies in their best practices. The cement manufacturing and telecommunications industries should establish roundtables to demonstrate environmental reporting benefits and methods to their smaller suppliers and partners.
- Gradual "little but accurate" approach: Businesses especially small and medium enterprises should view environmental accounting as an achievable process rather than an overwhelming task. The implementation of environmental accounting should begin with basic indicator reporting which includes annual electricity usage and water consumption and waste management statistics for financial reports and website content. The "start small but start" method enables businesses to develop their internal capabilities through incremental steps which will help them handle future requirements.

d) For long-term development:

The development of environmental accounting and sustainability reporting in Albania requires organizations to work together for building an environment that supports these practices. The process requires uniting legal framework development with educational programs and public environmental awareness initiatives. The EU membership process requires Albanian businesses to adopt European sustainability reporting standards because the upcoming EU legal framework (CSRD directives and European ESRS standards) will establish sustainability reporting as a mandatory practice for numerous companies. The adoption of these standards by Albanian businesses will create market advantages for them in both domestic and European markets. The implementation of these policies from law creation to professional training development will

establish sustainability reporting and environmental accounting as standard business practices in Albania.

Study Limitations and Directions for Future Research

The research contains specific boundaries which affect its overall validity. The research sample size of 151 participants does not provide sufficient statistical representation of all Albanian businesses. The research sample contains mostly medium and large businesses but micro-enterprises with fewer than ten employees remain underrepresented. The study encountered difficulties when trying to involve micro-companies because they showed no understanding of environmental accounting. Future research should increase the sample size to include more SMEs and specific business sectors including public organizations and particular industrial groups.

The research design uses a cross-sectional approach which measures both perceptions and practices at a single point in time. The research design fails to show how organizations modify their actions after new regulations become effective and how management opinions transform throughout different time periods. Future research should implement a longitudinal design to track these developments.

The survey data collection method through self-reported answers creates potential response biases because participants might present their organizations in a more favorable light or hide their weaknesses. The research team implemented survey question neutrality and participant anonymity to reduce response bias but some degree of subjective influence remains possible. Future research should integrate qualitative methods through manager interviews to validate and explain survey results.

The research provides essential knowledge about environmental accounting in Albania while establishing a base for additional academic investigations. Future research should explore three main areas which include (i) cross-regional studies between Albania and neighboring Balkan nations to analyze common and distinct environmental factors and (ii) detailed sectoral investigations to create targeted policies for high-risk sectors and (iii) impact assessments of specific interventions through monitoring company responses to training programs and new laws. The current state of environmental accounting in Albania presents multiple obstacles yet offers substantial opportunities for expansion. The implementation of sustainability principles in Albanian business practice requires stakeholders to address both internal and external factors while following the recommended solutions. The implementation of these recommendations will help stakeholders achieve sustainable development and European integration through complete sustainability principle integration into Albanian business operations.

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