READINESS OF ESTONIAN ENTREPRENEURS FOR A PARADIGM SHIFT IN THE ACCOUNTING FIELD

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Abstract

The article discusses future trends in accounting policy that will bring about a paradigm shift in the accounting field. So far, accounting has focused primarily on interpreting and explaining financial indicators and describing other trends in business activity only in the annual report. The accounting field is expanding, and in addition to customary reports, sustainable development reports will soon need to be submitted, which will detail the impacts on the environment, employees, and the systematic management of the entire organization. First discusses in the article the interrelation between the environment and economic activity, as well as the nature of sustainability reporting arising from environmental policy, is discussed. The focus is on the necessity of sustainability reporting and the changes it entails. Then an overview is given of accounting changes that have taken place in Estonia, and the readiness of medium and large enterprises in Estonia to use sustainability reporting is examined. The article explains other changes that come with sustainability reporting and the need for data digitalization and use in real-time economy. The purpose was to determine entrepreneurs' readiness for a paradigm shift in the accounting field. In order to achieve the objective, a quantitative research methodology was employed, data was collected through a questionnaire, and the Likert scale was used to measure the responses. A study conducted among medium and large enterprises found that they have adopted the principles of sustainable reporting and expect that if digitization and standardization are implemented at the state level and reporting moves automatically in real-time, their administrative burden will decrease. Large companies are ready for a paradigm shift in accounting, while medium-sized companies tend to take a wait-and-see approach.

Keywords: Accounting area, sustainability report, real-time economy, digitalization.

JEL Classification codes: Q56; M41; M49

Introduction

Accounting policy and the accounting field are moving towards the future. The European Union Commission's "Green Deal for Europe" program and the proposal to make climate neutrality legally binding in the European Union by 2050 when establishing a framework for achieving climate neutrality must be taken into account. The article is relevant because accounting policy is changing and a new paradigm is increasingly expected from accounting and reporting, and accounting obligation holders

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must adopt and implement future guidelines. Accounting policy is not only changing in Estonia, but changes arise from the EU Corporate Sustainability Reporting Directive (CSRD) 2022/2464EU. Therefore, the accounting field's paradigm is changing throughout the European Union.

The adoption of updated and updateable domestic legislation on financial reporting may have different effects on financial sector practices. However, there are differences in the EU economic environment, and therefore it cannot be assumed that the adoption of all directives will have a uniform impact across countries. In December 2022, the Sustainability Reporting Directive (CSRD) 2022/2464 EU was adopted, which amends Directive 2013/34/EU (Accounting Directive), Directive 2004/109/EC (Transparency Directive), Directive 2006/43/EC (Audit Directive) and Regulation (EU) No 537/2014 (Audit Regulation). The reason for the amendment is the requirement to establish corporate sustainability reporting (Directive ... 2022). The aim of establishing the directive and the resulting standards is to reduce the administrative burden on accounting obligation holders and simplify the presentation of all reporting possibilities. The broader goal of sustainability reporting is the coherence between financial and non-financial data and digitization. The adoption of sustainability reporting and other accompanying changes can be considered a paradigm shift in the accounting field according to the authors' opinion.

The purpose of the article is to determine entrepreneurs' readiness for a paradigm shift in the accounting field. To achieve this goal, the following research tasks are set:

1. Analyze changes related to financial reporting and accounting policies.
2. Analyze the readiness of medium and large enterprises for the changes resulting from sustainability reporting.

Entrepreneurs must be prepared for a paradigm shift in accounting and ensure that all economic activity is sustainable, requiring all entrepreneurs to contribute to the functioning of the domestic green economy. In the future, real-time economy is necessary, which will require the creation of machine-readable reporting systems and the transmission of machine-readable reports to both the state and the European Union. Digitization and standardization of reports should lead to a decrease in the administrative burden on entrepreneurs and in the long term, also cost savings.

The relationship between economic activity and the environment

Modern economy causes harm to the environment, which is why the environment has been studied and legal requirements have been established with the aim of protecting the environment that surrounds us. Pressure on the natural world has increased, resulting in increased inequality, resource scarcity, political tension, and natural disasters (Dixson-Decléve *et al*. 2022, 2). The natural system is deteriorating and needs revitalization. Scientists all over the world are conducting analyses, discussing, and developing various scenarios with the common goal of identifying measures to transform the environment to ensure sustainable economics.

One concept of sustainable economics is green growth and a green economy - both aim to achieve a carbon-neutral, socially inclusive, fair and equitable, and environmentally sustainable system that efficiently and sustainably uses natural resources (Al-Taai 2021, 2; Georgeson, Maslin 2017, 1). Global and national agreements and contributions from all members of society, including domestic entrepreneurs, are necessary for the functioning of a green economy. Initially, the focus was only on climate change, but there has been a shift to also think about improving nature and biodiversity or at least no longer polluting (Bakker *et al.* 2020, 6-7).

To protect the environment surrounding us, sustainable measures must be designed and various economic policy levers must be implemented. When making political decisions to ensure environmental protection objectives, it must be ensured that they do not have negative consequences on the environment. Therefore, it is not enough to just impose environmental taxes, but cooperation is needed in combining different measures (Ministry of the Environment 2021).

The European Union is competent to act in all areas related to the environment, such as air and water pollution, waste management, and climate change. In 2019, the European Green Deal was established (European Commission 2019). The agreement established a framework for achieving the following objectives (Euroopa Parlament 2021, 4-19):

- Reduce greenhouse gas emissions by 2030 and achieve climate neutrality by 2050.
- Increase vulnerability to climate change.
- Accelerate the transition to a circular economy.
- Reach zero pollution with the aim of protecting the health and well-being of citizens.
- Protect, preserve and restore the environment and strengthen natural capital.
- Reduce environmental and climate pressures associated with production and consumption.

To improve and preserve the natural environment around us, it is not enough to simply impose environmental taxes; it is necessary for the entire community to respond uniformly and sustainably use natural resources. In addition, political decisions on both domestic taxation and financial matters must be made to achieve this.

We have become accustomed to the idea that environmental taxes ensure the preservation of the environment, but this alone is not enough, and it cannot be done simply by calculation. Pigou argued that the cost of pollution (air, water, noise) and the consumption of natural resources associated with economic activity is significantly higher than the cost of production. However, Pigou had difficulty calculating the relationship between the environmental element and the tax rate. Environmental taxes have both supportive and non-supportive aspects. For example, environmental taxes provide financial resources for activities that maintain and restore the natural environment and help curb harmful activities. (Famulska *et al.* 2022, 2, Piciu *et al.* 2012, 125)

The natural environment must be preserved, and globally accepted regulations have been adopted to sustain this activity, all of which must act towards a common goal. Therefore, it is necessary to comply with all regulations and adopt future directions to ensure a sustainable living environment and sustainable economic activity.

The importance of sustainability reporting

The Corporate Sustainability Reporting Directive (CSRD) creates European Union sustainability reporting standards that come with reporting obligations for businesses, requiring them to disclose how much of their revenue, capital investments, and expenses are in line with the EU's sustainable finance taxonomy (European Commission 2022). Sustainability reporting has become known as the ESG (environmental, social, and corporate governance) report. The aim of ESG is to direct business activities towards ensuring sustainable development in society. (Seker & Sengür 2021, 197) So far, businesses have published non-financial information outside of financial reporting, such as environmental sustainability, in annual reports or published in annual reports or made available in reports on their websites. ESG has been created to provide such information, reflecting a voluntary commitment to non-financial objectives and ensuring social trust. (Seker & Sengür 2021, 190-191) Businesses now have to reorganize their overall strategies in light of the new paradigm and add new information that provides a broader overview in the longer term.

Through implementing ESG reporting, businesses can attract new investors, increase customer loyalty, and understand risks that threaten their business models. ESG reporting can also be seen as a business growth opportunity and even an inevitable future direction. Therefore, more and more companies are voluntarily preparing and publishing ESG information. (Hodge 2021, 11) Both Hodge (2021,13) and Seker & Sengür (2021, 195) emphasize that the ESG framework and requirements support the creation of business management systems at the next level, help establish internal strategies, enhance reputation, and increase business sustainability.

The transition to the new strategy must be thought out, and both national and institutional systems must ensure it. If the strategic approach is wrong, it may cause harm rather than economic benefit. For example, there have been cases where businesses have not done enough preparatory work for the ESG strategy and cannot quantify the results they have obtained, leading to accusations of "greenwashing" (Dann & Galer 2022, 10). Or there are businesses whose ESG quality suffers due to unintentional haste and lack of information or experience or those who deliberately mislead and deceive their investors and customers (Lokuwaduge & Silva 2022, 148). Misleading information may be that the published information is not true but instead practices a polluting or unsustainable business model with the offer of individual "green" products or that reports are only used to gain a positive image. This, in turn, leads to the government being influenced in order to gain benefits in the field of sustainability, while continuing with the old business models. (Lokuwaduge & Silva 2022, 148)

Sustainability reporting (ESG) is mandatory for businesses under the CSRD directive for non-financial disclosure in a unified report. The aim of the sustainability reporting directive is to improve the transparency and comparability of sustainability information provided by businesses and provide access to information that is relevant to sustainable investment decision-making.

Implementation of Sustainability Reporting

The requirements for meeting sustainability reporting objectives are high, such as certain sector businesses achieving a (zero) carbon footprint by a certain time. Achieving such a goal may result in economic losses or the failure of existing business models for entrepreneurs. (Dann & Galer 2022, 10) Many entrepreneurs worldwide have already submitted sustainability reporting. For instance, in 2005, 65% of the world's largest entrepreneurs reported an ESG component in addition to financial reporting. By 2020, this proportion had grown to 96% among large entrepreneurs. (Hodge 2021, 12–13) The entire organization's members must be involved in the sustainability reporting strategy. It is essential that financial managers are not limited to financial reporting but are active participants in the entire process, from creating ESG strategy and setting goals. (Dann & Galer 2022, 10).

Countries are trying to reconcile sustainability-related reporting with traditional financial and tax reporting for economic activity. Entrepreneurs must be prepared to adapt internal processes, create ESG strategies and reporting rules, and distribute resulting responsibilities and obligations among organizational members (Foltin & Holtzblatt 2022, 47). It is necessary to involve independent auditors in the process, who would assess whether set metrics are consistently transparent and that principles and procedures ensuring that financial data reflect the organization's actual activities are applied (Hodge 2021, 13). A 2020 study revealed that 56% of the world's 250 largest entrepreneurs recognize that climate change is a financial risk to their business in their enterprise reporting. The study showed differences in industry sectors and ESG issues, and the entrepreneur's ability to explain them depended on the consistency of their systems and operations (KPMG Impact 2020).

To make the obligations associated with ESG reporting efficient and meaningful, the following must be done (Hodge 2021, 13):

- Develop a deliberate strategy by finding answers to the following questions: What does ESG mean in business? How does ESG align with organizational values?
- Develop an action plan with specific plans by answering the question: how does integrating ESG into technology, workforce, supply chains, and infrastructure affect teamwork?
- Develop ESG performance metrics to reflect and involve the organization's economic activities for credibility assurance by an independent auditor.
- Align the organization's business model with ESG goals and values. Plan a long-term vision and action plan for the organization's further environmentally sustainable development.

Sustainability reports and financial reports can be submitted both separately and integrated. Those who voluntarily submit sustainability reports already add it as an attachment to the annual report or add a separate section to the financial statements, which is independent of financial data (Mervelskemper & Streit 2017, 538). Such integrated reporting brings about a paradigm shift in the accounting field.

To integrate reports, it is necessary to standardize reporting standards and create methodological uniform standards for data collection, evaluation of defined metrics, and validation of presented results. Despite the variability of ESG information, the comparability of ESG metrics and their financially measurable value becomes increasingly important for both investors and businesses (Cort & Esty 2020, 500-505). It is necessary to standardize ESG materiality, which serves as a basis for achieving financial measurability to assess the expected impact on the company's business model, revenue, profit margin, capital volume, and business risks. It is certainly necessary to conduct a comprehensive ESG impact measurement for the organization or its assets, aimed at providing a measurable and comparable assessment of whether the organization or its assets provide a net benefit or harm to society and how much is invested in sustainable future (Cort & Esty 2020, 497-498).

Businesses face new challenges ahead and are likely to have objections to the adoption of new systems. A study conducted among European Union member states and businesses showed that countries with existing environmental policy-based standards are more receptive to change. For example, in France, more comprehensive non-financial disclosure requirements for the private sector were introduced as early as 2010. The author of the study recommends answering the question in the future whether businesses' main reluctance is the cost of implementing new requirements or fear of reputational damage (Kinderman 2020, 679-691).

In any case, the introduction of sustainability reporting is necessary everywhere and the integration of pan-European digital systems with the reporting environment. Such integration of digital systems into a unified environment, through which it is possible to obtain both financial and non-financial information about the business, creates an opportunity to assess the sustainability of the business in the long term.

Changes in the accounting field in Estonia

One of the goals of the European Union's accounting policy is to reduce differences resulting from national peculiarities, in order to harmonize financial reporting across the EU and make financial statements easily understandable and transparent everywhere. Therefore, different accounting reporting directives are constantly changing in the European Union. (Güldenkoh, Silberg 2022, 123)

When the Directive 2013/34EU entered into force in 2016, it was expected that the change would lead to a reduction in the administrative burden for accounting entities, as the reporting obligation for the components of the annual report was introduced according to the category of the enterprise. The Directive 2013/34EU introduced simplified reporting requirements for micro-enterprises, exempted small enterprises from reporting cash flows and changes in equity, and reduced the number of mandatory annexes to the annual accounts (Accounting Act 2022). Since 01.01.2016, entrepreneurs in Estonia have been categorized on the basis of the financial indicators of the financial year (assets, sales revenue, average number of employees). Entrepreneurs are divided into four categories: micro, small, medium, and large. (see Table 1)

Table 1. Division of Estonian enterprises into categories on the basis of economic indicators of the financial year (Accounting Act 2022, compiled by the authors)

Category of enterprise name	Legal requirement	Total assets (euro) at the balance sheet date up to	Sales revenue (euro) in the reporting year up to	Average number of employees during the accounting year
Micro-enterprise*	private limited company	175,000	50,000	No requirement
Small enterprise**	company	4,000,000	8,000,000	50
Medium-sized enterprise**	company	20,000,000	40,000,000	250
Large enterprise ***	company	20,000,000	40,000,000	250

*Liabilities may not exceed equity; one shareholder, who must also be a member of the management board
** One indicator may exceed the prescribed conditions
*** At least two indicators must exceed the prescribed conditions

Now entrepreneurs need to focus on implementing the Sustainability Reporting Directive 2022/2464EU. The CSRD directive aims to regulate ESG reporting more clearly and extensively and move towards a more sustainable economy. In the European Union, the directive already applies to 11,600 companies in 2023 and will expand to 49,000 companies in the coming years. In Estonia, this directive directly affects nearly 240 companies, but all Estonian and EU entrepreneurs will indirectly feel the impact of the directive. (Kannistu 2021) The exact scope of sustainability reporting is not yet clear and is expected to be agreed upon in July 2023 (Klementi 2023). The Government of the Republic of Estonia approved the directive based on the following principles (Klementi 2023):

- Ensure publicly available information on the risks that sustainability issues may pose to entrepreneurs and the impact of entrepreneurs' activities on people and the environment. The information presented to the public must be comparable, reliable, and easy to use through digital technology.
- The requirements for sustainability reporting must be proportional and not create additional administrative burden for entrepreneurs. Mandatory reporting should be supported for large companies, while small and medium-sized enterprises should have voluntary reporting.

- Depend on global sustainability reporting. The standards to be developed must be consistent with other EU legislation and must take into account both existing internationally recognized sustainability reporting and accounting principles.
- Sustainability reporting and audits must have a simple structure and rely on a unified (preferably IFAC International Federation of Accountants) adoption.
- Support the machine-readability of sustainability reporting, but it must remain technology-neutral.
- A transitional period must be ensured for both statutory auditors and their supervision to acquire theoretical knowledge to ensure confidence in sustainability reporting.
- All sustainability reporting deadlines must be realistically implemented to build an efficient and cost-effective system.

It is difficult for those companies that already have to submit sustainability reports due to their public interest entity status to obtain from their business partners (suppliers, customers, etc.) the information they need to provide to the public. Sustainability information needs to be streamlined so that it is reliable and can be found and used by users with the help of digital technology. Sustainability information will be made more comparable to financial information. The European Commission believes that the implementation of the Directive 2022/2464EU will improve the allocation of financial capital to companies dealing with social, health, and environmental problems and the activities that address these problems, and thus increase trust between businesses and society. The European Commission is convinced that the implementation of the Directive will reduce the number of requirements that require companies to provide sustainability information other than that published in their annual reports. (European Commission 2022) The innovations of the Directive are as follows (European Commission 2021):

- reporting requirements apply to companies, including all large and listed companies (except listed micro-enterprises);
- the requirement for security of sustainability information;
- more detailed explanations of the information that companies should provide and the requirement for them to provide it in accordance with mandatory EU sustainability reporting standards;
- ensuring that all information is published as part of the undertaking's annual reports and in a digital machine-readable format.

According to Directive 2022/2464 EU, based on the standards to be created, companies must report in the future (Ministry of Finance 2021):

- on various environmental factors (such as climate change mitigation, resource use and circular economy, pollution, biodiversity) and ecosystems;
- on social factors (such as gender equality, working conditions, collective bargaining) and employee engagement, work-life balance, and a healthy, safe, and well-adapted work environment, as well as management factors (such as business ethics and corporate culture);
- on anti-corruption activities, the company's political activities, management of relationships and quality with business partners, and information on the company's

internal control and risk management systems (including the connections in the company's reporting process) must be disclosed in the reports.

Accounting entities must submit an annual report to the registrar within six months after the end of the financial year, which will be available to both the private and public sectors. The annual report includes an annual report and a management report. The content of the management report depends on the category of the enterprise (see Table 1).

The management report must provide an overview of the accounting entity's activities and circumstances that are significant in assessing its financial position and economic activities, significant events during the financial year, and expected developments. The management report must also include information on the existence of branches of the accounting entity registered abroad (see Table 2 on the next page).

Table 2. Mandatory parts of the annual report of small and medium-sized and large enterprises (Accounting Act 2022, compiled by the authors)

Category of enterprise	Content of the management report
Small and medium-sized and large enterprise	1) main areas of activity, product and service groups; 2) the most important investments made during the reporting year and planned in the near future; 3) significant research and development projects and project-related expenditure in the current and subsequent accounting years; 4) significant events that have occurred during the preparation of the annual report after the end of the accounting year that significantly affects or may affect the results of the following accounting years.
Audited small, medium, and large enterprise	In addition to the above: 5) the overall macroeconomic development of the operating environment and its impact on financial performance; 6) seasonality of business or cyclicality of economic activity; 7) significant environmental and social impacts of the activity; 8) the objectives and principles of financial risk mitigation in the presence of financial instruments; 9) risks related to changes in exchange rates, interest rates, and stock exchange rates during the reporting period; 10) the main financial ratios for the financial year and the preceding financial year, together with the methodology for calculating the ratios; 11) in this case, if the equity as of the balance sheet date does not comply with the requirements of the Commercial Code, the planned activities for the restoration of equity must be described; 12) in the case of shares or units acquired or pledged, if the number of transferred and non-transferred shares or units

	together with the nominal value must be provided (if there is no nominal value and the share in the share capital) and the amount of remuneration paid for the shares and the reason for their acquisition or using them as security.
A large enterprise that is a public interest entity with more than 500 employees at the balance sheet date	In addition to all the requirements described above: 13) a description of the business model, including key non-monetary performance indicators; 14) compliance with due diligence standards; 15) environmental and social impacts and policies, including business relations, the goods, and services offered and sold which, by their nature, are likely to have negative environmental or social impacts, including a reference to a provision of corporate governance, framework, EU or international framework; 16) human resources management and adherence to human rights, the existence of a policy according to the type of the entrepreneur, including the absence of a relevant policy or the policy has not been implemented*; 17) treatment of the fight against corruption with additions and references to the information reflected in the annual report, the existence of a relevant policy according to the type of the entrepreneur, including the absence of a relevant policy or the policy has not been implemented*.

* It must be explained, and justification has to be provided why these principles have not been developed or implemented.

Public interest entities must comply with the last three (15, 16, and 17) requirements (see Table 2) starting from 01.06.2021 and provide relevant information to the public in the activity report of the annual report in 2022. Public interest entrepreneurs should not be surprised by the Corporate Sustainability Reporting Directive (CSRD), as they must already report negative environmental impacts and other important internal policies or frameworks in their activity reports.

There are seven public interest entities in Estonia that must provide additional information on sustainability in their activity reports (see points 13-16 in Table 2). The directive applies to all Estonian entrepreneurs whose securities are traded on European Union stock exchanges (there are 33 of them in Estonia) and large companies registered in Estonia, which amounted to about 230 in 2020.

Additionally, this amendment indirectly affects their business partners since the company must disclose potential harmful effects related to its value chain, including its own activities, products and services, main actual or potential harmful impacts on the environment related to its business relationships and supply chain. However, the state must ensure digital environments for submitting reports, which in turn entail significant expenses from the state budget (Ministry of Finance 2021).

According to Directive 2022/2464, a member state must be capable of receiving machine-readable reporting, which must be in the format specified in the directive. In accordance with the standards to be created, which will be applicable as directly enforceable regulations, sustainability information obtained from businesses must be machine-readable. This means that the adoption and implementation of the directive will require extensive development work by the state, with an initial estimated cost of 1.65 million euros, and the implementation and testing of digital systems will take time. (Ministry of Finance 2021)

All future changes will bring about a paradigm shift in the existing accounting field. The new paradigm is much broader and includes not only conventional economic environment indicators but also the environment, people, and corporate governance principles. A unified digital reporting platform will bring changes to the reporting process.

The Estonian Ministry of Economic Affairs and Communications mapped out the periodic reports required from businesses and then developed a new reporting model and roadmap to help government agencies transition to data-based reporting. The report reveals that management of data descriptions and sharing of description information needs to be systematized. Data composition analysis and standardization must be conducted, and the ability to receive data in machine-readable format must be ensured. (Nortal AS 2020)

In Estonia, various government agencies require a total of 421 different reports from businesses, in addition to event-based reporting from the European Union and elsewhere. This consumes business owners' time and money, which could be solved by reusing data. Technology and necessary data are available in Estonia, but they need to be made to communicate and work together. Data-based reporting in both the public and private sectors makes life easier for both business owners and government officials and reduces administrative burden for all. (RUP 2021)

The authors of this article confirm, based on their entrepreneurial experience, that reporting is not yet automated into a single system nationwide. Various reports can be submitted digitally and in machine-readable form, but reports must be submitted multiple times to different government agencies, and a single system that would ensure data is submitted once and accessible to all government agencies has not yet been created.

The paradigm shift in accounting policies also brings about the implementation of "Country-by-country reporting", which derives from BEPS Article 13 and stipulates that large multinational corporations with consolidated revenues exceeding 750 million annually must disclose a report on tax-related information, which must also be machine-readable. The report must disclose tax-related information by country and include a list of their subsidiaries established in non-cooperative tax jurisdictions. (OECD 2021)

The transition to data-based reporting in both public and private sectors contributes to the broader vision of real-time economy, one of which aims to simplify and automate entrepreneurs' reporting obligations to the government and thus reduce the administrative burden associated with reporting obligations. (RUP 2021)

One of the objectives of the vision for real-time economy for the years 2020-2027 is to create technical capabilities that would improve the quality and accessibility of business data and enable real-time exchange of such data between different parties. One of the sub-objectives of the vision for real-time economy is to unify financial primary document forms, and primary deadlines have been set for this purpose. (Majandus ... 2020) The basic solution for real-time economy is considered to be common data exchange standards, integration of systems and institutions through digital platforms, and the creation of a unified taxonomy for reporting. (Krimmer *et al.* 2019) The transition to fully digital transactions should increase trust and transparency between business partners, which can reduce credit risk for financial institutions and improve access to loans and supply chain financing for entrepreneurs. (Majandus ... 2020)

The Ministry of Economic Affairs and Communications in Estonia has made the development of data-based reporting one of its priorities. However, whether standardizing reporting will reduce administrative burdens and operational costs for entrepreneurs will only become clear once complete standardization is implemented. But it is clear that cross-border standardization and machine-readable reporting, as well as the introduction of sustainability reporting, will bring about a new paradigm in accounting policies that all accounting obligors must adopt and consider in the future.

Methodology

To determine the readiness of Estonian entrepreneurs for a paradigm shift in the accounting field (including sustainability reporting, readiness for digitization, and transition to real-time economy), a survey was conducted among entrepreneurs.

Micro-enterprises were excluded from the survey (see Table 1), as a study conducted in 2021 revealed that micro-enterprises lack the ability to digitize data and transition to data automation (Güldenkoh, Silberg 2022, 131), and small enterprises, because if one requirement for the micro-enterprise category is not met, the enterprise already falls under the small enterprise category (see Table 1), and the results obtained from them may more closely match the results of the study conducted among micro-enterprises, according to the authors.

Medium-sized and large enterprises were included in the survey sample (see Table 1). According to information from the Center of Registers and Information Systems, calculated based on the economic indicators for the financial year 2021, there are 210 large enterprises and 1049 medium-sized enterprises in Estonia (Registrite ... 2023a). All entrepreneurs included in the survey sample were included in the survey. The email addresses of the entrepreneurs were collected from the e-Business Register (Registrite ... 2023b), which has made entrepreneurs' data freely available since October 1, 2022.
In total, the survey was sent to 1259 medium-sized and large enterprise email addresses through the ankeet.ee portal on March 23, 2023.

Only closed-ended questions were used in the survey (see Table 3 on the next page), with a total of 19 statements presented. The Likert scale was used as the measurement scale for the question responses. The Likert scale determines the degree of agreement of respondents with certain statements, and it can be used to evaluate respondents' attitudes. The Likert scale, developed by Likert in 1932, is considered the most reliable method for measuring attitudes. Questions are presented on a five-point scale, where "1" indicates disagreement with the statement and "5" indicates 100% agreement with the statement. "4" indicates more agreement, "2" indicates more disagreement, and "3" indicates a response of "I don't know." The final scale value is the sum of the points for each question. (Boone 2012, 1)

Table 3. Statements for entrepreneurs in a questionnaire

No	Statements
1	We are large companies based on economic indicators.
2	We are medium-sized companies based on economic indicators.
3	Green growth and green economy ensure the sustainability of the economy.
4	We support the imposition of environmental taxes rather than changing production and consumption.
5	We have voluntarily disclosed sustainability ESG information so far.
6	We have disclosed information about activities outside of financial reporting in our organization's annual report.
7	We have disclosed information about activities outside of financial reporting in our annual report's activity report.
8	We involve financial managers in setting ESG strategy objectives.
9	Digitizing and standardizing databases simplifies reporting presentation.
10	The state must build an efficient and cost-effective system for presenting sustainability reporting in machine-readable format.
11	By submitting a report only in one system where the report moves in real-time, it will definitely reduce our organization's administrative burden.
12	Implementing ESG requirements is too expensive.
13	Implementing ESG requirements may cause reputational damage.
14	The ESG framework helps to improve the organization's reputation and increase sustainability.
15	Integrated reporting brings about a paradigm shift in accounting through digital technology.
16	We are ready to submit sustainability reporting and make accounting changes.
17	Government support measures for the transition to digital systems are necessary for us.
18	We believe that small business owners are capable of adopting sustainability reporting principles.
19	We believe that small business owners cannot implement the vision of real-time economy without government support measures.

The statements 3-8, 10, and 12-15 of the questionnaire (see Table 3) were developed based on the theoretical part presented in the article, while the rest were created based on the objectives set out in the study and the authors' interests.

Results

The questionnaire responses were open until March 31st, 2023. 535 entrepreneurs (including 435 medium-sized and 100 large-scale) responded to the questionnaire, which represents 43% of the sample (48% of large-scale and 42% of medium-sized entrepreneurs responded). The obtained responses can be considered reliable and characterize the attitudes of the sample category of entrepreneurs. Table 4 shows the frequency of statement occurrence and the average value. The average value has been computed for all respondents, separately indicating the average value on the scale for both large-scale enterprises and medium-sized enterprises. Since the questionnaire responses were anonymous, the authors do not know who specifically responded to the sample and who did not. The results are presented based on the average value of the respondents. For certain statements where the responses of large-scale enterprises significantly differed from those of medium-sized enterprises, the authors provide some results categorized by the types of entrepreneurs. (see Table 4)

Table 4. Number of survey responses on the scale and average value of statements per respondent.

Statement no/scale	1	2	3	4	5	Total average value on the scale	Large enterprises	Medium-sized enterprises
3	0	0	50	85	400	4,7	5,0	4,6
4	480	50	5	0	0	1,1	1,0	1,1
5	0	35	400	50	50	3,2	4,5	2,9
6	383	0	5	97	50	1,9	4,5	1,3
7	100	235	0	100	100	2,7	4,5	2,3
8	0	48	375	52	60	3,2	4,6	2,9
9	0	0	74	109	352	4,5	5,0	4,4
10	0	0	0	112	423	4,8	4,6	4,8
11	0	0	250	146	139	3,8	5,0	3,5
12	0	0	66	211	258	4,4	3,3	4,6
13	400	50	52	33	0	1,5	1,0	1,6
14	0	0	111	208	216	4,2	5,0	4,0
15	0	0	300	44	191	3,8	5,0	3,5
16	169	164	100	51	51	2,3	4,5	1,9

Table 4 lacks the values of statements 1 and 2, and the average value of respondents 17-19 on the scale, because the first revealed the category of the entrepreneur and all 100% agreed with the last three statements.

The analysis of the presented statements shows that the majority of the respondents (statement 3, scale 4.7) are convinced that green growth and a green economy ensure the sustainability of the economy, which coincides with the theoretical part of the article. Most of the respondents (statement 14, scale 4.2) agree with the fact revealed by the theory that the ESG framework helps to improve the reputation of their organization and increase the sustainability of economic activities, while they are unable to explain (statement 8, scale 3.2) whether financial managers would be involved in setting ESG strategy goals.

Most of the respondents (statement 4, scale 1.1) do not support the imposition of environmental taxes, rather their responses suggest that they support reducing environmental pressure associated with production and consumption, which also coincides with the theoretical part of the results. They believe that implementing ESG requirements is rather expensive (statement 12, scale 4.4) and are hesitant (statement 16, scale 2.3) about whether they are ready to submit a sustainability report and make changes in accounting. None of the respondents (statement 13, scale 1.5) think that implementing ESG requirements would harm their reputation.

They remain rather neutral (statement 5, scale 3.2) about voluntary disclosure of ESG information, while based on the responses of large companies (scale 4.5), it can be stated that they agree that ESG information has been voluntarily disclosed before. Large companies have disclosed ESG information in both the annual report and the activity report of the financial year (statement 6 and 7, scale 4.5), which coincides with the theoretical results. They also agree with the theory (statement 8, scale 4.6) that financial managers in the organization must be involved in setting ESG strategic goals. Large companies are also convinced (statement 15, scale 5.0) that integrated reporting through digital technology will bring about a paradigm shift in accounting.

All answers are in line with the principles of the Republic of Estonia Government directive on CSRD approval. For example, entrepreneurs agree (statement 10, scale 4.8) that the state must establish an efficient and cost-effective system for submitting sustainability reports in machine-readable format, and they unanimously believe that state support measures for the transition to digital systems are necessary. Entrepreneurs are also convinced (statement 9, scale 4.5) that digitizing and standardizing databases simplifies reporting. Real-time reporting through one system reduces the administrative burden on organizations, according to all large companies (statement 11, scale 5.0), while medium-sized companies remain rather cautious (scale 3.5) and cannot yet foresee it.

Entrepreneurs (statement 16, scale 4.5) are ready to submit sustainability reports and adapt to changes in accounting practices. All respondents agree that small businesses are capable of embracing the principles of sustainability reporting, but they definitely need government support in implementing the visions of sustainability reporting and real-time economy.

Conclusions

From the analysis, it was revealed that medium-sized and large companies in Estonia are convinced that integrated reporting, along with real-time digital technology implementation, will bring about a paradigm shift in the accounting field. Large companies have been preparing for the implementation of the CSRD directive and ESG reporting for some time, as they have already voluntarily provided information to the public about their activities outside of financial reporting. Both the scientific sources and the study showed that ESG information has been presented in annual reports or financial statements, either as separate chapters or in activity reports.

Entrepreneurs' readiness for the changes resulting from sustainability reporting and the vision of the real economy was evaluated based on various statements and determined using the Likert scale, which is considered one of the most reliable methods for measuring attitudes. The study revealed respondents' attitudes towards sustainability reporting and the associated changes. One unanimous attitude was that state support for the transition to digital systems is necessary, and small businesses cannot implement changes in the accounting paradigm without support measures.

One of the principles of the Republic of Estonia's government is that additional administrative burden should not be imposed on entrepreneurs through reporting, and sustainability reporting must be machine-readable. Sufficient time must be allocated for the implementation of such systems. The study and scientific sources also showed that if the integration of a unified digital system with existing software systems remains the sole responsibility of entrepreneurs, it will lead to an increase in their operational costs and may jeopardize their sustainability, leading to the discontinuation of their business activities.

The authors of this article are convinced that the current systems requiring entrepreneurs to submit multiple reports to different authorities increase their operational costs and administrative burden. A unified digital platform where only one report should be submitted, and from which all interested parties can obtain information, should reduce entrepreneurs' administrative burden. The authors' conviction was also confirmed by the conducted research.

Therefore, based on the above, the authors of the article concluded that public sector data exchange in real-time should be resolved first, followed by private and public sector exchange. The authors are convinced that automation simplifies financial accounting and the work of accountants who deal with financial reporting on a daily basis. When planning to make sustainability reporting mandatory for all and implementing the vision of the real-time economy, entrepreneurs' ability to switch to automation must be taken into account. Therefore, support for large companies' digital submission of sustainability reporting should be provided first, and only when the systems are tested and working without problems should the next category of entrepreneurs be required to report.

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