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PERCEPTION OF ESG STANDARDS IMPLEMENTATION IN Polish SMEs - PILOT STUDY

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Abstract: This article analyses the perception of the implementation of ESG (environmental, social and corporate governance) standards based on a pilot study among Polish companies with a particular focus on SMEs. In the context of the implementation of the CSRD, the study assesses SMEs' awareness, readiness, and challenges to comply with sustainability reporting requirements. The pilot study covered key areas such as awareness of ESG standards, barriers to implementation, management, and employee engagement, and use of technology to support the reporting process. The results indicate varying levels of ESG knowledge and difficulties in implementation, including financial barriers, lack of knowledge, and appropriate technology tools. Resistance to change due to, among other things, lack of knowledge was shown to negatively affect perceptions of ESG. The article highlights the importance of factors that motivate SMEs to implement ESG and the need for support from public institutions and the consultancy sector. Proposed recommendations include education, additional funding, standardisation of tools, and automation of reporting. The study provides practical lessons for companies and policy makers, contributing to a better understanding of the dynamics of ESG implementation in SMEs and setting new directions for research on sustainable management.
Keywords: implementation barriers, CSRD, sustainability, reporting sustainability, SMEs

1. INTRODUCTION

The Corporate Sustainability Reporting Directive (CSRD) introduces mandatory ESG reporting for a wider group of companies. Although many Small and Medium-sized Enterprises (SMEs) are not formally subject to these regulations, they feel pressure from larger counterparties and institutions requiring the provision of ESG data as part of supply chains (Dudek and Kulej-Dudek, 2024) or servicing e.g. finance. SMEs are a key component of the Polish economy and account for approximately 99.8% of all businesses in Poland (Central Statistical Office, 2023); therefore, the authors decided to analyse the factors influencing the perception and implementation of ESG reporting standards. Identifying these factors is the key to understanding the challenges and opportunities associated with adapting small businesses to the new sustainability requirements.

By design, the implementation of ESG standards in SMEs should bring numerous benefits, such as improved competitiveness, stakeholder relations, and regulatory compliance, as a key element in building market advantage (Dmuchowski et al., 2023). At the same time, the implementation of ESG is associated with multifaceted challenges, including lack of awareness, difficulties in integrating standards into existing business processes, and limited access to new IT technologies that can, among other things, support reporting (Kuzior, 2024a). An analysis of the ESG literature indicates that both management and operational staff play a key role in the implementation of ESG standards. Awareness at the management level determines strategic decisions, while operational staff have a key influence on the effectiveness of the implementation of the implemented measures (Peng et al., 2024). In view of these challenges and potential benefits, a survey of ESG perceptions in SMEs, taking into account the impact of the CSRD, will provide important information on the readiness of these companies and their employees to implement reporting and their ability to adapt to changing market and regulatory requirements.

As the perception and level of awareness of the need to implement ESG reporting standards in SMEs in Poland remains relatively under-researched, the purpose of this study is to analyse the perception of the implementation of ESG (Environmental, Social, Governance) standards in Small and Medium Enterprises (SMEs) in the context of the implementation of the Corporate Sustainability Reporting Directive (CSRD). Although the directive formally covers mainly larger companies, its impact on SMEs is indirect, driven by counterparty demands and market pressures. As a result, many small and medium-sized companies face the need to adapt their operations to the upcoming requirements in order to remain competitive and meet the expectations of stakeholders.

Sustainability reports are a valuable source of information on the implementation of ESG standards, but reveal challenges related to their reliability, consistency, and comprehensive coverage of environmental, social, and economic aspects (Székely and vom Brocke, 2017). The literature has paid particular attention to the need to improve the quality of reporting, which becomes crucial for SMEs, which are often in the early stages of adapting to ESG requirements.

Modern technologies, such as ERP systems, IoT, artificial intelligence, and natural language processing (NLP), will play an important role in ESG reporting processes (Kuzior, 2024b), supporting data analysis and improving data transparency while making work easier and faster. However, the literature identifies significant difficulties related to data standardisation and system integration, which represent a significant barrier to the effective implementation of ESG reporting, especially in the SME sector (Kang and Kim, 2022).

Digitisation, especially in Central and Eastern Europe, plays a key role in supporting the implementation of ESG standards. The literature emphasises the need to increase investment in technology and reduce inequalities in access to advanced technological tools, which can significantly facilitate the adaptation of ESG standards in the SME sector (Tutak and Brodny, 2024). Innovative methods, such as the use of artificial intelligence, neural networks, satellite data, and physical parameter acquisition systems (e.g., SCADA), enable objective assessment of the environmental impact of SMEs, eliminating the potential conflict of interest associated with self-reporting. This approach supports SMEs' access to finance and increases their attractiveness in the eyes of investors, making them more competitive in the market (Ozkan et al., 2023). Additionally, modern technologies such as artificial intelligence (AI), Internet of Things (IoT), Big Data, and blockchain will play an important role in future ESG reporting systems, enabling improved transparency, accuracy, and consistency of data. Blockchain technology enables the elimination of greenwashing issues by improving the quality, verifiability, and transparency of ESG data. Due to its immutability and transparency, the blockchain has the potential to significantly increase stakeholder trust and improve the ESG reporting process (Zhu and Liu, 2024). However, the literature indicates that the high implementation costs and the difficulties in integrating with existing systems are significant barriers, especially for SMEs. In Poland, only 3% of companies use advanced technologies in ESG reporting processes, indicating a significant potential for improvement in this area (Dudek and Kulej-Dudek, 2024). Both the closed-loop economy (CE) and ESG standards face similar barriers, including a lack of technological competence and limited financial resources. A key challenge is to integrate these concepts into business models that can not only increase their effectiveness but also improve stakeholder perceptions. Adequate integration allows for more effective implementation of sustainable practices and builds trust in companies' actions (Ingaldi and Ulewicz, 2024).

Automated acquisition and processing of structured and unstructured data plays a key role in the creation and analysis of ESG reports. Technologies such as natural language processing (NLP), text segmentation, and the integration of data from various management support systems enable the production of more readable and transparent reports, significantly increasing their credibility. The use of these advanced technologies also supports compliance with regulatory requirements such as the CSRD (Peng et al., 2024). Despite the plethora of quantitative studies, advanced analytical methods and the regional contexts of ESG implementation need to be developed. This will allow implementation strategies to be better tailored to specific local circumstances and challenges, which is particularly relevant for SMEs (Khamisu and Paluri, 2024).

It is important to note that contemporary reporting of different aspects, supported by advanced technologies, can use the same data sources. The ESGs and the SDGs (Sustainable Development Goals) (United Nations, 2015) are complementary - the ESGs support the implementation of operational sustainable activities, while the SDGs provide a strategic framework. Synergy between these concepts significantly supports the effective implementation of the global sustainable development goals (Leung et al., 2023). A solution to facilitate the implementation of proper reporting can be the use of solutions based on the principles of open innovation to support the integration of internal and external resources, enabling the development of sustainable strategies in SMEs. Education and knowledge sharing play a key role in this process, as reflected in the survey questions on training and collaboration with experts (Szromek and Bugdol, 2024).

Factors responsible for the successful implementation of reporting and sustainability standards include increased awareness of the importance of these issues among employees at all levels, alignment of operational strategies, effective governance, and active stakeholder engagement. Successful implementation of ESG also requires the promotion of diversity in management structures and the fine-tuning of practices to the specifics of the industry, allowing for more effective integration of principles.

Research on ESG perceptions is conducted in various ways. An example is analysis based on social media data, which indicate that the public mostly assesses ESG positively. However, there are concerns about greenwashing and inconsistencies in assessment methods. Improving transparency and increasing educational activities to build greater public trust and stakeholder engagement in ESG processes remains a key challenge (Liu et al., 2023). The introduced ESG Perception Scale (P-ESG) was developed as a tool to analyse public opinion on ESG activities undertaken by organisations. It enables the prediction of outcomes such as improved reputation or increased investment intentions, while highlighting the critical importance of transparency and the elimination of greenwashing in building sustainable relationships with stakeholders (Oh et al., 2024). Global trends in ESG highlight its growing importance in both sustainability and the investment sector. In Poland, despite the absence of significant legal barriers, ESG implementation faces limitations mainly due to insufficient knowledge and limited resources. Education and simplification of implementation processes to facilitate the adaptation of ESG standards can be a key support for the SME sector (Dmuchowski et al., 2023).

Analyses based on social media data indicate that the public generally perceives ESG positively. At the same time, emerging negative views, mainly related to problems such as greenwashing and inconsistency of ESG assessments, highlight the need to improve the quality and transparency of information published by companies (Liu et al., 2023).

Identifying barriers and enablers to ESG implementation in small businesses is key to supporting the sector's transformation toward sustainability. The pilot research aims to understand perceptions of ESG and provide practical recommendations for simplifying processes, education, and technology to support the implementation and reporting of sustainability principles and solutions. Research results can significantly contribute to the long-term value of SMEs and their compliance with regulations and stakeholder expectations.

The literature points to significant differences in the ability to implement ESG standards between large companies and SMEs. Key barriers include a lack of financial and organisational resources, which limits the ability of small businesses to implement these standards effectively. As Ab Aziz et al. (2023) note, governance structures with dedicated ESG committees significantly improve the efficiency of implementation, but these are rare in smaller firms (Zhu and Liu, 2024). Analysis of ESG perceptions suggests that regional and industry differences play an important role. Research by Liu et al. (2023) shows that positive views of ESG predominate (66%), but negative comments (16.6%) are often due to lack of knowledge and inconsistent assessment methods. Implementing ESG also requires adjusting operational strategies, taking into account success factors such as environmental performance or management quality, as highlighted by Khamisu et al. (2024).

In summary, the literature indicates that identifying and then eliminating barriers to ESG reporting requires investment in education and technology, as well as regulatory and organisational support, which will enable SMEs to effectively meet sustainability goals and increase their competitiveness. Supporting SMEs to implement ESG is key, especially through the use of modern technology. The literature also highlights the importance of tools such as the ESG Perceptions Scale (P-ESG), which can help identify ESG perceptions among different stakeholder groups and improve the implementation of ESG standards within companies (Oh et al., 2024). Although SMEs are not formally subject to ESG reporting, market pressures and counterparty demands force them to align their operations with sustainability requirements (Khamisu and Paluri, 2024). However, they still face difficulties due to a lack of financial, technological, and knowledge resources, which are significant barriers to the implementation of ESG standards (Ab Aziz et al., 2023; Liu et al., 2023).

Surveys in SMEs that analyse perceptions of ESG are a valuable source of information on barriers and needs of the sector, such as the difficulties in integrating ESG into daily operational processes and the need for education and technological support. The data obtained can help to develop practical recommendations for simplifying processes, training employees, and adapting regulations to the specificities of SMEs (Dmuchowski et al., 2023; Ab Aziz et al., 2023). The essence of research on the perception of the reporting implementation process and sustainability principles is to improve SMEs' readiness to implement ESG standards, increase their competitiveness, ensure compliance with regulations, and build long-term business value, which is crucial for the further development of the SME sector in Poland (KPMG, 2024; Liu et al., 2023).

The implementation of CSRD in companies poses multifaceted challenges, including changing the awareness and perception of ESG standards by employees at different organisational levels. Key issues include evaluating the adaptation of production and operational processes to sustainability reporting requirements and evaluating the impact of a number of social and technical aspects, such as data capture, on the ESRS-compliant reporting process. It is also important to understand how the perceptions of these changes and the changes themselves affect the transparency, business strategies, and financial performance of the organisation. The initial research focused on perceptions of the changes and the resulting challenges, risks, and opportunities associated with the implementation of the CSRD in SMEs. It was particularly important to analyse the impact of changing awareness and the use of technological aspects of ESG reporting on perceptions of ESRS-compliant reporting processes. This approach made it possible to provide recommendations for appropriate research to ultimately support effective ESG implementation and ensure transparency and sustainability of organisations. To this end, surveys were conducted.

There is a lack of detailed analysis in the available literature on the perception of the implementation of ESG standards in Polish SMEs, especially in the context of the impact of the CSRD and the Act of 6 December 2024 on audit firms and public oversight. Although there are studies focussing on large companies, such as the work of Bielawska (2023) on CSR, or Belas et al. (2024) analysing ESG in Visegrad countries, they overlook the unique challenges of Polish SMEs. Our study fills this gap by providing empirical data on barriers such as limited technological resources, educational deficits, and counterparty pressure. Unlike previous studies, we offer practical recommendations, including standardisation of reporting tools, financial support, and targeted employee education, which can significantly contribute to the sustainable transformation of Poland's SME sector.

2. RESEARCH METHODOLOGY

The purpose of the study was to analyse relevant aspects of the implementation of ESG reporting and to evaluate the perception of the implementation of environmental, social and governance standards in SMEs in Poland in 2024. It was decided to conduct a pilot study, which was implemented by means of a survey. The survey was designed to assess awareness, perceptions of ESG, and readiness for implementation and to identify barriers related to the implementation of ESG principles in SMEs, especially in the context of the growing impact of regulations such as the CSRD.

A survey questionnaire, available online and developed in Google Form, was used to collect data. The survey was divided into three main sections: (1) ESG awareness and knowledge - questions on knowledge of ESG standards, regulations (including the CSRD), and their relevance to SME operations; (2) ESG implementation process - questions assessing how advanced the implementation of ESG principles is, the tools used, and the difficulties encountered; (3) ESG perceptions and challenges and support needs - questions on barriers such as financial, technological, educational difficulties, and areas where companies need support, e.g. in terms of advice or technology.

The questionnaire included closed and open questions to collect quantitative and qualitative data. A Likert scale was also used to measure the degree to which respondents agreed with statements related to ESG implementation. Open-ended questions were also included, allowing respondents to express their opinions on the difficulties encountered and their expectations for future action in this area.

The pilot study included 41 employees of companies in the SME sector, purposively selected on the basis of criteria such as industry, size of the organisation, and degree of progress in implementing ESG standards. The diversity of respondents in terms of sector (e.g. industry, trade, services) allowed the identification of specific challenges faced by companies in different industries. The research group included operational staff, owners, and managers at various levels.

The survey was conducted in November 2024 and data was collected using an online Google Forms form, which allowed a wide range of respondents to be reached while saving time and costs. The form was available on the website, and a link to the survey was distributed to selected businesses. The data collected were analysed both quantitatively and qualitatively. For quantitative data, statistical tools were used. Qualitative data, obtained from open-ended questions, were subjected to content analysis to identify key themes, such as technological barriers, financial difficulties, or the need for additional support.

The survey also allowed for the collection of demographic data such as gender, age, education of respondents, type of business, and size of the company. Additionally, data on the province in which the company is located was included, allowing for an analysis of regional differences in the perception and implementation of ESG standards.

The pilot study on the 'Impact of CSRD implementation on awareness and perception of ESG standards in Small and Medium Enterprises' included 41 respondents. The demographic analysis shows variation in terms of gender, age, education, type of business, and location of companies. In terms of gender, the results are similar: 51.22% of the respondents were male and 48.78% female, indicating a balance in the perception of the ESG issue by both genders. The largest group of respondents (51.22%) is in the 45-54 age range, suggesting a dominance of middle-aged people. Those in the 35-44 age range make up 29.27% of the sample, indicating a high involvement of those with work experience in ESG issues. A small proportion of the respondents are younger than 25 years (2.44%), and only 4.88% are over 55 years old.

In terms of education, 73.17% of the respondents have a university degree, of which 17.07% have a bachelor's or engineering degree and 9.76% have a high school degree.

This distribution indicates the dominance of well-educated respondents, which can translate into greater awareness of ESG standards and the CSRD.
In terms of positions held, 22% of respondents are senior management, 19.51% are middle management, and 12.20% are business owners. Administrative staff comprise 17.07%, and the remaining respondents are manufacturing (2.44%) and service workers (4.88%). These results show that the survey is dominated by decision makers, which positively influences the representativeness of the results.
Most of the respondents come from manufacturing (31.71%) and trading companies (29.27%). Service companies make up 21.95% of the sample, and the other sectors (education, science) only account for 4.88%. This distribution can influence industry perceptions of ESG standards.
Geographic analysis shows that most companies are located in southern Poland (73.17%), with the highest number of respondents coming from the Silesian Voivodeship (75.61%).

3. RESULTS AND DISCUSSION

The results of the survey indicate a low level of knowledge of the CSRD and ESG standards among the surveyed group. Up to 58.54% of the respondents rated their knowledge as low or completely unknown, which may indicate large educational gaps. However, 80% of the participants showed an interest in expanding their knowledge of sustainability, indicating a desire to develop and adapt to new regulations. These results can be in part related to educational demographics. As many as 73.17% of the respondents have a tertiary education, suggesting that although the level of knowledge about ESG is low, the overall ability to absorb new information in the context of sustainability may be high. It should be noted that a large proportion of respondents come from manufacturing (31.71%) and trading companies (29.27%), which may have different educational needs depending on the industry.
The analysis shows that, despite the declarations to implement tools to support ESG reporting, the actual implementation remains at an early stage. As many as 43.90% of companies are not yet implementing any analytical tools to support ESG reporting, while 41.46% plan to do so in the future. Furthermore, only 14.63% of companies have conducted professional training in ESG reporting. In line with the demographic results, the survey is dominated by 45-54-year-olds (51.22%). It is worth noting that people in this age bracket may have a greater need for education on new regulations, and the lack of full implementation of tools may be due to a lack of technological support or limited resources.
The age and level of education of the respondents play a key role in the implementation of ESG standards, as they affect awareness of the importance of the standards and the ability to adapt to new requirements. Tertiary education, which was predominant in the survey (73.17% of respondents), potentially facilitates the understanding of complex concepts of ESG, but low levels of awareness of ESG (58.54% of respondents rated their knowledge as low or very low) indicate significant educational gaps, requiring training and awareness campaigns. On the contrary, those aged 45-54, the largest group of respondents (51.22%), are often in decision-making positions but may be more resistant to technological changes, such as the implementation of tools to support ESG reporting (ERP, IoT). The low level of awareness of ESG and the lack of investment in technology indicate the need for financial and educational support in the SME sector. Intensification

of educational activities and public support can improve the adaptation of ESG standards in Polish SMEs.

The respondents identified the main benefits of implementing ESG standards, including potentially better customer relations (31.71%) and alignment with market requirements (17.07%). In contrast, they note that the biggest challenges in their companies they indicated related to ESG implementation were a lack of knowledge and awareness among employees at various levels (70.73%) and fear of high implementation costs (24.39%). These results are consistent with demographic data, showing a predominance of middle-aged respondents, which may suggest that people in this age range, with more work experience, face difficulties adapting to the new requirements. Furthermore, the lack of knowledge about ESG may be more pronounced in companies with lower educational or technological resources.

Respondents also note the technological challenges and perceive a useful role for tools supporting ESG reporting; it was indicated that 30.3% of those surveyed see the potential for technological support that tools such as ERP, IoT SCADA, or artificial intelligence can offer. Despite this, up to 58.54% of companies, especially micro and small businesses, still use manual data collection methods, making it difficult to automate processing and reporting including ESG in the future. In terms of demographics, middle-aged people (45-54 years) may find it difficult to implement new technologies, despite a high awareness of the need for innovation. SME employees, especially those in the manufacturing sector (31.71%), note that small companies have difficulty integrating ERP and SCADA systems with ESG reporting tools, which may be due to delays in technology implementation and lack of sufficient infrastructure and costs.

The survey results indicate that the respondents perceive low management involvement in the ESG implementation process in SMEs (43.90% of the respondents rate it as low) and 34.15% of the employees see ESG as an additional burden. Only 7.32% of the respondents consider ESG as a key element of the company's strategy. Respondents also note that lack of participation in the ESG implementation process suggests a need for further development of managerial education. Low involvement in the ESG process may also be due to a lack of complete understanding of its benefits and concerns about additional costs, particularly in manufacturing companies that may be more focused on short-term financial performance.

Respondents indicated that 39.02% of companies feel upcoming pressure from counterparties to provide ESG data, and 46.34% realise that they will have to adapt their operations to ESG requirements soon. According to the demographic analysis, the predominant proportion of respondents is from manufacturing (31.71%) and trading companies (29.27%). As such, these companies may particularly feel pressure from large contracting entities that require ESG compliance in order to build more sustainable supply chains. The findings suggest that SME companies, especially in the southern region of Poland, should intensify their monitoring of the impacts of ESG on stakeholder relationships and develop collaborative relationships with suppliers to meet the coming demands.

The survey results indicate a low level of implementation of ESG policies in SMEs. According to demographic data, the highest number of respondents comes from manufacturing (31.71%) and trading companies (29.27%), so it can be inferred that employees of SMEs in these industries are concerned about the difficulties of fully integrating ESG processes into their management support systems, e.g., ERP and

SCADA. Companies, especially those in the manufacturing sector, struggle to integrate new technologies into existing systems, let alone acquire ESG data. They also believe that this can make integration and compliance with the ESRS requirements difficult. Respondents see potential in the development of technologies to support the integration of already existing processes with ESG, particularly pointing to the possibility of additional modules in ERP software.

The results of the study confirm the challenges of implementing ESG standards that have been described in the literature. A study by Belas et al. (2024) indicated that in countries in the Visegrad Group (V4), the challenges of ESG are mainly the result of resource scarcity and educational restrictions, which is also reflected in the Polish context. Similarly, Pyka and Pyka (2023) highlighted the importance of transparency and ESG compliance in financial processes, which is consistent with the findings of our study, which indicate the need for investment in education and technology to support ESG reporting. Basing the survey results on the TOE model, which suggests that technology adoption in small companies depends on technological, organisational, and environmental factors, confirms that the lack of technology implementation in 43.90% of the surveyed companies is due to financial and educational constraints. In addition, the knowledge absorption model indicates that low levels of ESG awareness limit firms' ability to use available technology tools (Peng et al., 2024). Public support, including education and simplification of reporting processes, can therefore increase the willingness of Polish SMEs to implement ESG standards (Khamisu and Paluri, 2024).

Faced with limited budgets, SMEs should prioritise investment in technologies that quickly deliver ESG compliance benefits, such as ERP systems with ESG modules that enable automated data collection and analysis. SaaS (Software as a Service) models can also be beneficial, as they reduce upfront costs and are flexible, allowing them to scale as the business grows. Additionally, financial support from EU funds can support such investments (Dudek and Kulej-Dudek, 2024).

4. CONCLUSIONS

The results provide valuable information on the degree of awareness, readiness, and challenges faced by SMEs in the context of implementing the CSRD and other sustainability reporting regulations.

Varying levels of awareness and knowledge of ESG. The research found that the level of awareness of ESG standards among the surveyed SME employees is uneven. Although some companies claim to be aware of the benefits of ESG implementation, many companies still do not understand the full definition of these standards and their potential impact on business operations. Significant knowledge gaps were also identified regarding the practical aspects of ESG implementation, which can lead to delays in implementing the required standards.

Financial barriers and lack of resources. Among the key barriers, the respondents indicated financial difficulties and lack of adequate human and technological resources. Many respondents indicated that SMEs are not yet legally required to implement ESG, and the costs associated with implementing reporting and implementing technology to enable ESG reporting were also pointed out to be too high, significantly inhibiting their readiness to implement CSRD reporting standards. Furthermore, the lack of access to specialised tools and technical expertise is a significant obstacle, especially in the context of small companies that do not have adequate IT departments or sustainability teams.

Resistance to change and ignorance. Resistance to change, particularly due to ignorance of the benefits of ESG implementation, is a major inhibitor. Many companies fear that the process of complying with new regulatory requirements will be too costly and time consuming, leading to a negative perception of ESG as an additional burden.

Management and employee engagement. Increased awareness and involvement of business leaders and employees in the ESG implementation process is essential for successful implementation of the standards. Research found that in many cases, lack of adequate support from top management or a reluctance to involve employees hinders the implementation of an effective ESG strategy. Some respondents of small businesses indicated the need for external advisory support to help break down resistance and improve the implementation process.

External support needed. The research points to the important role of public institutions and the consulting sector in supporting SMEs in the ESG implementation process. It is advisable to increase the availability of funding, educational programmes, and consultancy that could help companies overcome difficulties related to ESG implementation. Companies express the need to standardise and simplify reporting tools and simplify the reporting process.

Education and outreach activities should be intensified to increase awareness of ESG, especially among small companies. It is crucial to develop training programmes targeted at managers and employees to enable them to better understand the rationale for implementing ESG standards.

It is proposed to increase the availability of financial support, including EU funds and state programmes, which will allow SMEs to finance investments in technology to support ESG reporting. It is also important to support the selection of appropriate technology tools to facilitate the implementation of ESG standards.

It is also recommended to develop ESG reporting standards and simplify documentation that will be easy to implement, especially in smaller companies. Automation of reporting processes could reduce the cost and time needed to comply with regulatory requirements.

Given the still low level of implementation of ESG standards in Polish SMEs, as well as the mixed results of the survey, further research in this area is necessary. The focus should be on long-term research to understand the effectiveness of different methods of support in the ESG implementation process and to assess the impact of ESG implementation on the financial performance and reputation of companies. Further research can also contribute to the development of more precise tools and methods to assess the readiness of SME employees for ESG implementation. This will facilitate further adaptation of public policies to the needs of this sector. Systematic surveys will also allow the capture of the dynamics of change in the perception of ESG and the implementation process of CSRD-compliant reporting standards. They will allow monitoring how views on ESG requirements change as they gain experience with implementation and how they adapt their strategies in response to changing regulations and public expectations. Regular analysis will also identify new barriers, challenges, and technological solutions that may arise during implementation, as well as assessing the effectiveness of the tools implemented to support the reporting process. In this way, research will become a key tool in assessing the impact of regulation on business practices and identifying areas where companies will require additional support.

Limitations and future developments

The limitation is the pilot study (small research sample). In future research, it is planned to extend the research sample, taking into account enterprises from different regions of Poland and diverse sectors of the economy, such as industry, trade, services, and modern technologies. Such an extension of the sample will allow for more representative results, taking into account regional differences in the adaptation of ESG standards; the use of random sampling will increase the reliability of the results.

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