

RESEARCH ARTICLE



Role of Stakeholder Engagement in Sustainable Development in Estonian Small and Medium-Sized Enterprises

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Abstract: As the world becomes increasingly aware of the negative impacts of human activity on the environment, there is an urgent need for sustainability. Small and medium-sized enterprises (SMEs) are essential contributors to the economy, and their role in promoting sustainability cannot be overstated. This study examines the role of stakeholders in promoting the sustainable development of SMEs, with focusing on environmental sustainability and innovation. Specifically, it investigates the role of customers, local governments, competitors, and non-governmental organizations (NGOs). This study employs a qualitative approach using 10 semi-structured interviews to collect data from SMEs operating in Estonia. These findings suggest that stakeholder engagement is crucial for promoting the sustainable development of SMEs. While the government may not play an active role in promoting sustainability, NGOs, consumers, and competitors can all play an important role in supporting SMEs' sustainability efforts. These findings provide insights into the various stakeholders that SMEs should consider in their sustainability strategies and highlight the importance of collaboration and engagement with stakeholders to achieve sustainable development goals. The study contributes to the understanding of the role of stakeholders in promoting sustainable development in SMEs, specifically in the context of Estonia.

Keywords: sustainability, small and medium-sized enterprises, stakeholder engagement, environmental sustainability, innovation

1. Introduction

Global concern for sustainability has grown significantly because of the recognition of adverse environmental consequences caused by human activities. Addressing these challenges has become an urgent priority, leading to greater emphasis on promoting sustainable practices across various sectors [1]. In this context, the involvement of small and medium-sized enterprises (SMEs) becomes crucial, as they play a pivotal role in the global economy. SMEs are essential contributors to economic growth, innovation, and employment generation, comprising around 90% of all companies globally [2] and 99% of all companies in the EU, and contributing to 50% of the region's GDP [3, 4]. However, their significant contribution to the economy also implies that they are substantial contributors to environmental issues. This is particularly true in countries such as Estonia, where eco-efficiency and eco-innovation indicators rank relatively low compared to other EU countries [5, 6]. Therefore, it is essential to focus on the role of SMEs in advancing environmental sustainability and innovation [7].

This study aims to delve into the concept of stakeholder engagement and its crucial role in fostering sustainable development in SMEs, with a specific focus on environmental sustainability and innovation. This study recognizes that stakeholder engagement is a

critical factor in propelling SMEs toward more environmentally responsible and innovative practices. This study explores stakeholder collaboration and partnerships to support SMEs in adopting sustainability practices. Previous research highlights the positive impact of stakeholder collaboration on sustainability adoption in SMEs [8–12]. These studies have shown that stakeholders can provide expertise, specialized information, and mentoring, thereby helping SMEs overcome specific barriers to adopting sustainability practices.

To gather insightful data from SMEs operating in Estonia, this study employs a qualitative approach with 10 semi-structured interviews. The key stakeholders investigated included customers, local governments, competitors, and non-governmental organizations (NGOs). Understanding the roles and contributions of these stakeholders is essential for developing effective strategies for promoting sustainability within SMEs.

While governmental involvement in promoting sustainability may vary, this study reveals the critical roles played by NGOs, consumers, and competitors in supporting SMEs' sustainability endeavors. The findings underscore the significance of collaboration and meaningful engagement with stakeholders in achieving sustainable development goals. By shedding light on the diverse stakeholders that SMEs should consider in their sustainability strategies, this study aims to provide valuable insights for SMEs operating in Estonia. Emphasizing the importance of stakeholder engagement, this study contributes to a deeper understanding of the

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role that stakeholders play in driving sustainable development in the specific context of Estonia and SMEs.

The following sections provide an overview of the prior research on environmental sustainability and stakeholder roles. Section 3 outlines the research methodology. The findings are presented in Section 4, followed by Section 5, which concludes the study, emphasizes the study's implications for practice, addresses research limitations, and proposes a future research agenda.

2. Literature Review

2.1. Environmental sustainability in the business context

Companies are tasked with fulfilling responsibilities beyond profit maximization. For instance, they are directly affected by the Sustainable Development Goals of the United Nations 2030 Agenda [13]. Complying with global goals and applying sustainability measures is critical. Companies through social contracts are expected to fulfill the requirements of society, including the consideration of environmental issues, where commitment is commonly referred to as corporate social responsibility (CSR) [14]. The CSR activities that Chung and Cho [15] bring out from their reviewed frameworks include recycling, employee relations, abatement, and the metrics of energy conservation, employee satisfaction/retention, and lower pollution emissions, leading to lower energy expenses and compliance costs, as well as increased productivity.

Although business studies on sustainability have mostly been carried out among large companies, Khoja et al. [16] with their findings state that sustainability practices in SMEs, similar to their large counterparts, have been linked to better environmental, economic, and operational performance despite SMEs generally having fewer resources than their larger peers. Improving sustainability also contributes to creating a competitive advantage which is why SMEs are encouraged to invest in it (Ibid.). Higher performance can also be obtained by SMEs that view resource scarcity as an opportunity to network and collaborate with stakeholders, such as their partners and customers [17]. Bakos et al. [18] brought out management and stakeholder pressure as greatest drivers of environmental sustainability of SMEs in 122 examined studies while also mentioning the importance of sustainability awareness and knowledge for the adoption of sustainability practices. However, this is costly and time-consuming which is why support from governmental and educational institutions is needed. (Ibid.)

Applying environmental sustainability means is slowly turning from a voluntary to a standardized regulatory action where it is no longer a choice or strategy – the Corporate Sustainability Reporting Directive of the European Union applicable to large companies and some SMEs for reporting the financial year 2024, making the environmental risks and opportunities of the company more transparent, entered into force by 2023 [19]. Although the application of environmental sustainability has received less attention in SMEs than in large companies, Suchek et al. [20] confirm that environmental strategies lead SMEs to environmental, economic, and social benefits. Therefore, it is reasonable for SMEs that such changes might require more resources, plan their strategies in advance, and embed environmental sustainability into their business strategy. In addition, countries in the Baltic region, such as Estonia, are catching up with Western Europe economically, yet remain under-researched [21–23]. Making environmental sustainability a part of the business culture can make it more cost-effective for the transition to take place over time and, as mentioned previously,

will yield benefits not only for the environment but also for the business economically and socially, while also proactively preparing SMEs as environmental sustainability becomes a standardized regulatory action rather than a choice or strategy.

2.2. Stakeholder role

The stakeholder theory, which focuses on how companies could work the most effectively, emphasizes the importance of value created for and by every stakeholder in a business, independent of whether they are on the board of the firm [24], and has had numerous organizational sustainability practices research based on [25].

Innovation processes and the role of stakeholders in them are still not well defined [26]; however, Dey et al. [27] find that the successful adoption of sustainability practices needs internal motivation as well as support from stakeholders and policymakers. Furthermore, Baah et al. [25] found that organizational stakeholder pressure significantly predicted green production practices and environmental performance, among other stakeholders' variables. Ahmadov et al. [7] found that SMEs are motivated to embrace circular economy practices due to legal requirements, consumer expectations, and a desire for environmental impact, yet face barriers like lack of knowledge and limited finances, requiring actions from both SMEs and policymakers to overcome. Nguyen and Adomako [28] examined primary (government/regulators, customers/suppliers, employees, competitors) and secondary (NGOs/activists, media) stakeholder pressure on environmental commitment as well as the mediating effect of environmental commitment on eco-product innovation. Their findings confirm the importance of stakeholder green pressure for SMEs and their eco-innovation practices (ibid.). In addition, NGOs play a crucial role in the initial phases of establishing, expanding, and disseminating sustainability-oriented practices [29]. Stekelorum et al. [30] note that collaborating with NGOs can aid in developing social requirements within SMEs' supply chains, thereby enhancing the role of CSR in shaping these standards.

Regulatory stakeholder pressure was found to have a similarly significant positive correlation with green production practices and environmental performance [25]. Bakos et al. [18] in their literature review confirm that government is a major driver in the adoption of environmental sustainability in SMEs. However, based on the seminal work by Jansson et al. [31], Dubey et al. [32], as well as Cantele and Zardini [33], it becomes apparent that SMEs are less responsive to regulations than compared to larger enterprises. This nuanced observation suggests that, while regulatory pressure plays a significant role in driving environmental sustainability practices among SMEs, its impact may vary depending on the size and organizational structure of the enterprise. Nevertheless, policymakers are still more focused on economic aspects in the context of European SMEs, according to Dey et al. [27]. Passaro et al. [34] propose that for SMEs to implement eco-innovation measures successfully, further effort, such as considering the company size, market, type, etc., from policymakers is needed. In addition, a recent study on Estonian micro-firms shows that to adopt green products and services, clearer regulations regarding the use of secondary raw materials, as well as grants and subsidies, are essential [35].

Stakeholder pressure from both regulatory and non-regulatory stakeholders has been found to significantly predict green production practices, environmental performance, and eco-innovation in SMEs. Although governments have been identified as a major driver of environmental sustainability adoption in SMEs, further policy efforts that consider factors such as company size, market, and type are necessary for the successful implementation of

eco-innovation measures. Overall, internal and regulatory stakeholder pressures are critical in incentivizing SMEs to implement environmental sustainability and eco-innovation practices.

3. Methodology

In this study, a qualitative method was employed, utilizing online interviews to investigate the involvement of different stakeholders in sustainable development among SMEs in Estonia that implement innovation for environmental sustainability. A qualitative research method is believed to be the most appropriate, as it enables data to be gathered that are grounded in the real-life experiences of people [36]. The subjective nature of qualitative research methods allows researchers to better understand and interpret the depth of responses and respondents' opinions about creating and maintaining their social realities [37].

The interviews were conducted between February and March 2023 using a non-probabilistic purposive sampling strategy [38] to select individuals who were well-versed and knowledgeable about the phenomenon of interest [39]. The SMEs participated in an anonymous semi-structured thirty-minute interview, recorded, and transcribed in a Microsoft Teams environment with the participants' permission. Interviews with Estonian companies were conducted in English. The sample profile description is shown in Table 1, and the sample size was based on trying to achieve data saturation, where new additional interviews would provide few new insights [40]. The companies are labeled with numbers from 1–10 for further analysis. As seen in Table 1, the respondents were mostly CEOs and managers of different areas of companies active in the fields of wood, furniture, chemicals, apparel, beverages, and metal products; they had been considered internally as knowledgeable representatives regarding environmental sustainability.

To guarantee the thoroughness and authenticity of our qualitative analysis, this study employed the Gioia method, which is widely recognized for its inductive data analysis approach [41]. Thomas [42] characterizes the inductive approach as one that relies on “detailed readings of raw data to generate concepts and themes” by assigning codes to paragraph or text segments through a meticulous examination of the raw data [43]. The Gioia method is known for its strict adherence to rigorous standards in qualitative research and provides a systematic method for analyzing qualitative data [41]. To facilitate the analysis process, manually transcribed interviews were analyzed using NVivo software. The analysis process involved structured collaboration among the authors, where one author conducted an initial analysis of all interviews and carefully examined the data to identify

emerging concepts and patterns. The findings were then presented to the other authors for review and discussion. Through multiple rounds of deliberation, the authors refined the subcategories and themes to ensure a comprehensive interpretation of the data.

The list of companies was extracted from the Orbis Europe database, and the size of each company was verified by the interviewee during the online meeting, ensuring that they met the European Union's classification criteria for SMEs, employed less than 250 persons, and had an annual turnover not exceeding 50 million.

For data analysis, directed content analysis appropriate for studies with predetermined theories [44] was used. Initial codes were established through question themes based on predetermined categories (theories) and new codes assigned to any new category (Ibid). The interview protocol can be found in Appendix 1, and it was formulated based on and in line with previously reviewed literature [17, 18, 27]. The semi-structured interview guideline consists of stakeholders and how they affect the firm's environmental sustainability and eco-innovation. The transcripts from the interviews were then analyzed, worked through, and organized following the established coding themes that had been developed based on the previous literature review.

4. Findings

After conducting the interviews and working through the transcripts, the findings were condensed into the summarized key points in Table 2. The table provides a comprehensive overview of the responses from ten companies, distilled from the detailed interviews conducted for this study. Each company's perspective on various aspects of environmental sustainability and innovation was captured in a structured format, highlighting critical insights and common themes. This table serves as a foundational reference point, summarizing how these companies interact with and respond to different external influences, such as customers, local governments, competitors, and NGOs, in shaping their strategies toward sustainability. The table systematically presents companies' opinions and actions regarding environmental sustainability, illustrating the internal motivations and external pressures that drive their efforts.

4.1. Company perspectives on environmental sustainability and innovation

Regarding their opinion on environmental sustainability, most companies stated that they consider environmental sustainability important and implement sustainable means because of their internal values and intrinsic motivation to minimize environmental

Table 1
Interview sample profile

| Company# | Respondent's position | Company size | Interview duration | Field of activity |
|----------|-----------------------|--------------|--------------------|---|
| 1 | Environmental Manager | Medium | 43 min | Manufacture of wood and products of wood and cork |
| 2 | CEO | Small | 33 min | Manufacture of furniture |
| 3 | Quality Manager | Medium | 32 min | Manufacture of wood and products of wood and cork |
| 4 | CEO | Small | 38 min | Manufacture of chemicals and chemical products |
| 5 | Factory Manager | Medium | 37 min | Manufacture of wearing apparel |
| 6 | Innovation Manager | Medium | 41 min | Manufacture of beverages |
| 7 | Founder | Small | 34 min | Manufacture of beverages |
| 8 | General Manager | Medium | 39 min | Manufacture of fabricated metal products |
| 9 | CEO and owner | Small | 35 min | Manufacture of wearing apparel |
| 10 | CEO | Small | 29 min | Manufacture of computer, electrical, and optical products |

Table 2
Summary of key points

| Key themes | Company Perspectives on Environmental Sustainability and Innovation | Customer Engagement and Communication | Impact of Local Governments | Competitors' Influence | NGOs' Contribution |
|------------|---|---|---|---|---|
| Company 1 | Importance recognized, learning and implementing measures | Limited involvement in design changes, communication through presentations and questionnaires | Participation in local programs, reliance on EU directives | Learning from competitors with high sustainability standards | Limited interaction, reliance on specific organizations for information |
| Company 2 | Viewed as important, consideration in product design and logistics | Sustainability as a competitive advantage, communication through updates and questionnaires | Importance in public procurement guidelines, need for sustainability criteria | Viewing sustainability as a competitive advantage | Utilization of consulting companies and internet resources |
| Company 3 | Integrated into strategy, adherence to local rules | Importance of customer feedback and adherence to tenders, factory visits | Adherence to local rules, perception of strict regulations | Monitoring competitors' practices to stay competitive | Collaboration with NGOs and Chamber of Commerce |
| Company 4 | Use of natural ingredients, collaboration with organizations | Good communication with customers, emphasis on feedback and meetings | Collaboration with government programs and institutions | Collaboration with organic organizations | Recognition of the challenge of greenwashing |
| Company 5 | Struggle due to historical context, emphasis on sales-driven motivation | Communication through product labels and sales interactions | Limited support or guidance, companies left to find own methods | Limited competition from Far East, focus on European policies | Perceived lack of involvement or impact |
| Company 6 | Focus on minimizing footprint, goals toward carbon neutrality | Customer feedback driving solutions, communication through social media | Importance of government support, acknowledgment of increasing focus | Importance of competition in driving sustainability efforts forward | Availability of materials and support from NGOs |
| Company 7 | Sustainability as a central focus, efforts to reduce footprint | Customers as drivers of sustainability choices, involvement in community efforts | Perception of minimal involvement or support | Networking opportunities with green tech and non-profits | Desire for increased collaboration and competition |
| Company 8 | Acknowledgment of necessity but low current importance | Limited sustainability communication, distribution of certification | Awareness of legislation regarding recycling | Lack of knowledge about competitors' practices | No contact or involvement with NGOs |
| Company 9 | Focus on climate protection, adherence to rules | Customer-driven development through tenders and testing | Neutral stance, setting general rules | Observation of shifting production practices, acknowledgement of need for improvement | Adoption of solar power and certification requirements |
| Company 10 | Recognition of minimal environmental impact, focus on cleanliness | Limited customer involvement, focus on technology development | Compliance with legislation, lack of active support | Monitoring competitors' practices, focus on cleanliness | Engagement with industry organizations and universities |

pollution and their carbon footprint. They also mitigate issues related to climate warming and protect the environment. Notably, four companies were born green, and sustainability was tightly embedded into their principles. This intrinsic commitment drives their efforts beyond compliance, fostering innovation and setting standards within their industries.

Generally, the interviewed companies wanted to reduce their environmental impact, with some even making it a central topic in their operations despite several challenges such as managing certain types of waste and the high costs associated with sustainable practices. For instance, Company 4 collaborates with organizations that use natural ingredients, underscoring their dedication to environmentally friendly practices. However, companies face ongoing challenges, including the need for better waste management solutions and the financial burden of adopting green technologies.

Some companies are driven by demand from clients or want to change their consumer mindset. They believe that educating consumers and shifting their preferences toward sustainable products can create a significant market advantage. For example, Company 5 emphasized that foreign customer demand is a significant driver for their sustainability efforts: “The main motivation would be sales as the customers really appreciate it – they make the decision to buy largely based on the eco-friendliness labels and in Estonia, it is not this way yet”. This reflects a broader trend in which consumer awareness and demand for sustainable products are higher in international markets, prompting companies to align their practices.

Others hope to be leaders in sustainability and motivate others to be sustainable. Company 7 expressed the growing relevance of sustainability: “...now it’s becoming more and more relevant. I personally see it is now time to get aboard the train and those who won’t, will be left behind”. This sentiment echoes a sense of urgency and a recognition that sustainability is no longer optional but a critical component of business strategy. Companies 3 and 6 shared a similar vision, stating their goal of being environmentally sustainable is to set an example to others as a responsible partner and a member of the community. These companies see their sustainability initiatives as a way to enhance their reputation, attract environmentally conscious customers, and build stronger community ties.

Moreover, the commitment to sustainability is not solely about compliance or external pressure but is also viewed as a competitive differentiator. Company 3, for instance, has integrated sustainability into its overall strategy and adheres rigorously to local regulations, while Company 6 is focused on achieving carbon neutrality, demonstrating a proactive approach to environmental stewardship. This forward-thinking attitude highlights the strategic importance of sustainability in gaining a competitive edge, attracting investments, and ensuring long-term business resilience.

4.2. Customer engagement and communication

The qualitative findings show the significant role of customers and their demand in the environmental sustainability and eco-innovation of the interviewed enterprises. Those dealing with larger foreign customers noticed greater customer pressure by asking for sustainability reports and certifications. The level of knowledge and interest of big companies in environmental sustainability tends to be higher. The interviewed firms also found that the high environmental awareness level of their foreign customers helps them learn and gain valuable knowledge for their own practices.

The main communication with customers takes place through the companies’ websites, social media, regular meetings, and sales

processes, as well as via labels on products such as the ECOCERT that help transmit the sustainability message. For instance, Company 6 noted: “...when we do demos for the new clients, then we underline what are the principles toward the sustainability in our company”. This practice not only educates customers about the company’s sustainable practices but also reinforces their commitment to environmental values.

Companies already born green, such as Company 4, stated that they experience high customer involvement in product design processes, where they gather ideas from their customer community for better handling of waste and further eco-innovation. This collaborative approach helps ensure that the products meet the customers’ sustainability expectations and enhance the overall eco-friendliness of the company’s offerings.

Some enterprises also show their processes to customers by inviting them to their premises in order to obtain an overview of their production eco-efficiency. Company 5 highlighted this by mentioning: “Our customers also visit the factory to see the production...” and “...we do a lot of tours in our rooms as well, focused on the sustainability aspect...” These visits not only provide transparency but also engage customers directly in the company’s sustainability journey, fostering a deeper connection and trust.

Furthermore, customer feedback is a critical driver for companies striving to improve sustainability. Company 6 emphasized how customer feedback drives their solutions, stating that customer input through social media significantly influences their sustainable practices. This engagement through modern communication platforms ensures that the company remains aligned with customer expectations and can quickly adapt to new sustainability trends.

Additionally, some companies view customer engagement as a means to drive broader changes in consumer mindsets and market practices. For example, Company 7 mentioned that customers are significant drivers of sustainability choices and that involving them in community efforts and product development is essential. This not only aligns the company’s operations with customer values but also positions them as leaders in sustainability, inspiring others to follow suit.

4.3. Impact of local governments

The perceptions of participants regarding the role of local governments in promoting environmental sustainability among SMEs were characterized by a sense of neutrality coupled with a recognition of existing guidelines and legislation, albeit with a perceived lack of comprehensive guidance and support. One participant encapsulated this sentiment by stating, “What we get from the government at the moment is basically dos and don’ts, and basically I feel that we have to find our own way to achieve them...” This statement reflects a prevailing sentiment among participants, indicating that while there are regulatory frameworks in place, there is a notable absence of proactive guidance or assistance from local authorities.

Despite this perceived lack of comprehensive support, certain Estonian organizations were identified as valuable resources for participants seeking assistance in navigating sustainability initiatives. Specifically, EAS, Rohetiiger, and Chamber of Commerce were highlighted as instrumental in providing useful training and resources. This underscores the importance of leveraging existing institutional support structures within the region to supplement governmental efforts and facilitate knowledge dissemination and capacity building among SMEs.

Furthermore, participants acknowledged the role of the EU in streamlining regulatory frameworks and facilitating foreign operations through standardized regulations. The value placed on similar rules across the EU territory highlights the importance of harmonized regulatory environments in promoting the ease of doing business and fostering cross-border trade, thereby underscoring the interconnectedness of local and supranational governance in shaping sustainability practices within the region.

Monetary support from the government has emerged as a crucial factor for SMEs, particularly for smaller companies with limited resources to allocate sustainability initiatives. The recognition of the financial barriers faced by SMEs underscores the importance of targeted government interventions to provide financial incentives and support mechanisms to enable SMEs to effectively invest in sustainable practices.

Moreover, there was a notable call for a more proactive and receptive attitude from local governments toward environmental sustainability, particularly in the context of public procurement practices. Participants emphasized the need for sustainability criteria to be integrated into procurement decisions, highlighting the potential for government procurement policies to serve as a catalyst for driving sustainability across supply chains. As one participant aptly noted, "...if public procurement will only indicate the price as the only criteria, then it doesn't really reflect the idea of sustainability..." This sentiment underscores the importance of aligning government procurement practices with broader sustainability objectives to incentivize responsible business practices and foster a culture of environmental stewardship within the region.

4.4. Competitors' influence

The role of competitors emerged as a significant factor shaping the environmental sustainability strategies and eco-innovation practices of participants, particularly within the context of Northern Europe and countries such as Norway, Sweden, and Denmark. Participants recognized the importance of monitoring competitors as a means of gathering insights and benchmarking their own initiatives. One participant mentioned that since ESG is something new in Estonia, monitoring competitors is important for gathering information on how to design their own ESG strategies. International competitors tend to have worked on environmental sustainability communication and awareness; therefore, monitoring them is important to stay in competition: "...we know we have to do it also because otherwise, we will no longer be on the market. We look at what they do and try to do the same things".

Moreover, participants identified their own environmental principles as a source of competitive advantage relative to competitors who did not prioritize environmental sustainability. This distinction underscores the strategic importance of sustainability as a differentiator in the marketplace, with participants leveraging their environmental commitments to position themselves favorably among consumers increasingly conscious of sustainability considerations.

Concerns regarding greenwashing (the practice of misleadingly presenting companies as environmentally responsible while hiding their true environmental impact [45]) were also raised by participants. The prevalence of greenwashing among competitors lacking credible environmental certifications was cited as a source of skepticism within the industry. This highlights the importance of transparency and accountability in sustainability communications to foster consumer trust and mitigate the risk of reputational damage associated with misleading environmental claims.

Despite these challenges, participants expressed a positive outlook on competition, considering green measures: "... I think that that competition is very healthy in this regard, that it will push others forward as well..." and that SMEs could work together to pursue mutual goals: "...I would like to see more collaboration and healthy competition to see who can be the greenest, etc. I think we could also partner with other companies to import products, for example, a more sustainable producer. I think there is potential also in banding together and forming an association". Only a few companies mentioned that collaboration was done to some extent with others to gain new information and support. Bigger competitors tend to have more resources to dedicate toward sustainability efforts as per the interviewees.

4.5. NGOs' contribution

The contributions of NGOs to the environmental sustainability efforts of internationalized SMEs were underscored by participants, particularly in the form of consulting services, access to free Internet resources, and support from business organizations.

Consulting companies affiliated with NGOs were cited as helpful with guidance toward laws and regulations and with providing advice. By offering specialized knowledge and support, consulting companies facilitated the integration of sustainability principles into business operations, thereby enabling SMEs to effectively navigate regulatory requirements and promote responsible environmental practices. Participants also highlighted the importance of free Internet resources provided by NGOs in facilitating knowledge dissemination and information sharing on sustainability topics. These online platforms serve as accessible repositories of information, empowering SMEs to stay informed and up-to-date on emerging trends and best practices in environmental sustainability. By democratizing access to sustainability information, NGOs play a pivotal role in equipping SMEs with the knowledge and resources necessary to drive positive environmental outcomes within their organizations.

Furthermore, support from business organizations affiliated with NGOs was noted as a valuable resource for participants seeking to enhance their environmental sustainability. Such as Tallinna Loomelinnak provided networking opportunities and platforms for collaboration among industry stakeholders, fostering a supportive ecosystem for SMEs to exchange ideas and best practices. Through engagement with these business organizations, participants were able to access additional support and resources to further their sustainability objectives.

5. Discussion and Conclusion

The aim of this study is to explore the role of stakeholders in the sustainable development of SMEs in the context of a developed country. Studies that have identified a positive association between environmental sustainability, eco-innovation [46, 47], and stakeholder pressure [28] have mostly been conducted among larger companies. Consequently, SMEs in developed countries remain unclear, despite their critical role in the economy and in addressing environmental concerns. This study contributes to the existing literature by examining the role of stakeholders in the development of environmental sustainability of SMEs in developed countries.

Semi-structured interviews conducted with 10 SMEs yielded insightful perspectives on the motivations driving environmental sustainability practices within this sector. The motivation for environmental sustainability practices among SMEs aligns with the findings reported in the literature. Consistent with prior research

[16, 20], this study reveals that SMEs are increasingly driven by internal values, customer demands, and competitive advantage in adopting sustainable measures. This alignment underscores the significance of market pressures and intrinsic motivations in shaping SMEs' sustainability strategies [15]. Moreover, this study's identification of SMEs actively seeking to reduce their environmental impact and integrate sustainability into their core operations resonates with the literature emphasizing the proactive stance adopted by businesses in response to societal and regulatory expectations [13, 48].

Regarding the role of stakeholders, the study findings corroborate the existing literature emphasizing the influence of customers and competitors on SMEs' environmental sustainability practices [25, 28]. Customers emerge as key drivers of sustainability initiatives, with SMEs actively engaging them in product design processes and communication. Similarly, the study underscores the importance of monitoring competitors, particularly in regions with established sustainability norms, to inform SMEs of their own strategies and maintain competitiveness [26]. The literature and study findings jointly highlight the pivotal role of stakeholder pressure in incentivizing SMEs to embrace environmental sustainability practices.

NGOs also play a significant role in supporting the sustainability efforts of SMEs. In addition, NGOs are crucial in the initial phases of establishing, expanding, and disseminating sustainability-oriented practices [29]. This is particularly evident in the study's findings, which indicate that SMEs benefit from the guidance and resources provided by NGOs to develop and implement sustainability initiatives. Additionally, Stekelorum et al. [30] noted that collaborating with NGOs can aid in developing social requirements within SMEs' supply chains, thereby enhancing the role of CSR in shaping these standards. This collaboration helps SMEs meet social and environmental standards more effectively, further reinforcing the importance of external stakeholders in the sustainability journey of SMEs.

In terms of government support and policies, the study's findings regarding SMEs' perceptions align with the literature, indicating a mixed outlook on government involvement in environmental sustainability [24]. While acknowledging some regulatory guidance, SMEs express a need for greater support and guidance, particularly in navigating complex sustainability frameworks and accessing financial resources [7, 35]. This study's identification of supportive organizations and resources, such as consulting firms and business associations, echoes the literature highlighting the role of non-governmental entities in assisting SMEs with sustainability initiatives [34, 49]. However, the study underscores the importance of enhanced governmental support, particularly through monetary incentives and leadership in sustainable procurement practices, to facilitate SMEs' transition toward environmental sustainability [50]. A recent study on Estonian micro-firms highlights that clearer regulations regarding the use of secondary raw materials, as well as grants and subsidies, are essential for the adoption of green products and services [35].

5.1. Practical implications

The findings offer actionable insights and recommendations for SMEs to bolster their environmental sustainability efforts and navigate the evolving landscape of sustainable business practices. Beyond merely adopting sustainable practices, SMEs are urged to internalize sustainability into their core operations and values, fostering a culture of sustainability that permeates every aspect of their business. Moreover, this study emphasizes the importance of actively responding to evolving consumer preferences for

eco-friendly products and services, highlighting the need for SMEs to not only understand but also engage with customers to co-create sustainable solutions. Additionally, the recommendation to monitor competitors for best practices underscores the competitive advantage SMEs can gain by staying abreast of industry trends and innovation. Furthermore, the call for advocacy for governmental support and collaboration with external stakeholders emphasizes the pivotal role that SMEs can play in driving systemic change toward sustainability. By embracing these recommendations, SMEs can not only enhance their sustainability practices but also position themselves as leaders in environmental stewardship, fostering a more resilient and environmentally conscious business landscape.

Further recommendations to policymakers include enhancing current institutional support, increasing resources allocated to sustainability training and education, and fostering collaboration between companies and innovation hubs such as universities. Additionally, guiding regulations for product labeling, including valid certifications, CO₂ footprint calculations, and waste management, are required to promote green product transparency and mitigate greenwashing.

The limitations inherent in this study stem primarily from its focus on the manufacturing sector, thereby constraining the generalizability of the findings to other sectors. Consequently, while the qualitative approach adopted in this study facilitates in-depth exploration, its applicability across diverse industries remains uncertain. Moreover, the use of purposive sampling introduces the potential for self-selection bias, as participants inherently inclined toward sustainability may have been more likely to participate, thereby skewing the interpretation of results toward a positive stance on sustainability issues. Additionally, the exclusive focus on SMEs operating in Estonia poses a single-context limitation, limiting the generalizability of the findings to businesses in different geographical or cultural settings.

Based on the identified limitations, several promising avenues for future research can be delineated to advance our understanding of environmental sustainability practices among SMEs. Future research should aim to diversify the sectors studied beyond manufacturing to allow for a broader examination of environmental sustainability practices. Employing more diverse sampling methods can mitigate self-selection bias and enhance the generalizability of the findings. Additionally, exploring SMEs across different geographical and cultural contexts can provide insights into the factors influencing sustainability practices. Future studies should also delve deeper into stakeholder dynamics and the longitudinal effects of sustainability initiatives to offer a more comprehensive understanding of environmental sustainability within SMEs.

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Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

Data available on request from the corresponding author upon reasonable request.

Author Contribution Statement

Tarlan Ahmadov: Conceptualization, Methodology, Validation, Formal analysis, Writing – original draft, Writing – review & editing, Supervision. **Siret Ulp:** Methodology, Validation, Formal analysis, Resources, Data curation, Visualization. **Wolfgang Gerstlberger:** Writing – original draft, Supervision, Project administration, Funding acquisition.

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Appendix 1. Interview protocol

| Step | Description | Script |
|------|--|--|
| 1 | Welcome Participants | Good morning. Thank you for taking the time to join me for this interview today. |
| 2 | Introduce yourself | My name is [NAME] and I'm here on behalf of [SCHOOL], conducting a study on the environmental sustainability and eco-innovation of Estonian SMEs. |
| 3 | Purpose | The purpose of this interview is to gain a deeper understanding of the role of stakeholders in the sustainable development of Estonian SMEs. |
| 4 | Ensure Confidentiality and Obtain Verbal Consent | We are committed to maintaining your confidentiality. We are interested in your points of view and not in who said what. You will remain anonymous. To ensure you are comfortable, I would like to ask for your verbal consent to proceed with this interview. Do you agree to participate under these terms? |
| 5 | Participant Introduction | Would you like to introduce yourself briefly? |
| 6 | Interview Questions: | See below for individual questions |
| 6.1 | Question 1. | What is your company's opinion on environmental sustainability? What is your company's motivation behind eco-/sustainable innovations? |
| 6.2 | Question 2. | What is the role of customers in your environmental sustainability and –innovation? How was consumer involvement on your product design? How did you communicate your sustainability to your consumer? How is the communication happening between your company and consumer? |
| 6.3 | Question 3. | What is the role of local governments in your environmental sustainability and innovation? |
| 6.4 | Question 4. | What is the role of competitors in your environmental sustainability and innovation? |
| 6.5 | Question 5. | What is the role of NGOs in your environmental sustainability and innovation? |
| 7 | Concluding the Interview | Thank you. This was the last question. Would you like to add anything else? Then this finalizes our interview. We will analyze the results and if you are interested, we can send you the summary of the results. |