

# The Role of Education and Training in Preparing Sustainable Business Models for Small and Medium Enterprises: Current Experiences and Empirical Research

Aliona Lîsii

*"Constantin Stere" University of European Political and Economic Studies,  
Republic of Moldova*

[aliona\\_lisii@yahoo.com](mailto:aliona_lisii@yahoo.com)

Anna Volosiuc

*"Constantin Stere" University of European Political and Economic Studies,  
Doctoral School of Economic and Environmental Sciences, Republic of Moldova*

[ana.volosiuc@usm.md](mailto:ana.volosiuc@usm.md)

## Abstract

*This study examines the critical role of education and training in developing sustainable business models for small and medium enterprises (SMEs). Using Moldova as a case study, the research highlights the importance of structured educational programs and training practices in addressing strategic and operational challenges faced by SMEs in their transition to sustainability. Key findings reveal that targeted educational initiatives not only enhance SMEs' ability to implement sustainable practices but also strengthen their resilience in competitive markets. The paper underscores the integration of theoretical frameworks with practical training methodologies, emphasizing their contribution to achieving long-term environmental, social, and economic goals. By analyzing empirical data and current experiences, the study provides actionable recommendations for policymakers, educators, and entrepreneurs aimed at fostering sustainability in the SME sector.*

**Key words:** sustainability, SMEs, Training, Education, Business models

**J.E.L. Classification:** Q01, L26, I25

## 1. Introduction

The fundamental role of sustainable development for small and medium-sized enterprises (SMEs) is primarily associated with solving strategic socio-economic and environmental challenges, which cannot be achieved in many countries without the contribution of SMEs. In the context of the Republic of Moldova, it is important to emphasize that SMEs account for 98.6% of the country's total economy (Point.md, 2024), and their sustainable development would effectively represent a transition to a sustainable economy. However, our previous research has shown that the transition to sustainable business models by SMEs faces challenges due to the lack of advanced training practices for management and staff, limited awareness, and the need for support in undertaking sustainable transformations (Lîsii and Volosiuc, 2024, p. 157-161). Given the crucial role of education and training in preparing sustainable business models for SMEs, it is necessary to postulate the fundamental elements of supporting sustainable SME development both theoretically and practically through training and support for transformations.

## 2. Theoretical background

The initiation of sustainable business model development requires comprehensive methodologies for training and preparing SMEs, which involve identifying relevant issues, synthesizing existing practices, and addressing gaps in sustainable development education. Prior research highlights key barriers SMEs face, including financial constraints and limited knowledge. Literature emphasizes the

importance of integrating theoretical frameworks with practical applications, such as the development of educational programs tailored to sustainability. Studies by Pramudyastuti O.L (2023) and Jong F.D (2023) demonstrate the significance of financial advisory services and leadership in embedding sustainable practices within SMEs. Additionally, international initiatives, such as UNEP’s (United Nations Environment Programme) eco-innovation programs and the Cambridge Institute’s SME Climate Hub, provide valuable insights into training approaches and best practices for sustainable development.

### **3. Research methodology**

Our study consists of two parts. The first part examines experiences, relevant case studies, and specific challenges faced by SMEs in education and training when preparing sustainable business models. Special attention is paid to the European Union's programs for supporting sustainable SME transformations, as well as private experiences of in-house training for SMEs in sustainable development. In the second part, an online survey of 34 SME employees and business owners was conducted to substantiate the findings from the literature review regarding the role of training and the current prevalence of sustainable development training among SMEs. This survey enabled us to update and postulate the current state and role of education in preparing sustainable business models for SMEs in the Republic of Moldova.

The research employs both general scientific methods and a survey method, which allowed us to link theory, practice, and the results of empirical research, leading to key conclusions regarding the state of training practices in preparing sustainable business models for SMEs.

### **4. Findings**

#### **4.1. Current State of Education and Training for Sustainable Development**

In this study, education and training for preparing sustainable business models for SMEs are understood as a set of processes involving formal, non-formal, and informal education. The objective is to increase the awareness of SME managers and employees about sustainable development, followed by the gradual integration of sustainable development processes and the logical transformation of business models towards sustainability (implementing social, environmental, and corporate governance principles—ESG principles in business). This training is initiated both internally by the SME (through management efforts to train employees, create a relevant culture, increase responsibility, etc.) and externally through training of managers and their alignment with sustainable development values.

Given the global popularization of sustainable development as a fundamental concept for businesses, education in the context of sustainable development is becoming increasingly crucial. As noted by O.L. Pramudyastuti and colleagues, based on their research, SME commitment to sustainable development remains relatively low in some regions, necessitating assistance with socialization and special training to accompany the implementation and gradual transition to sustainable business models for SMEs (Pramudyastuti et al., 2023, p.213).

Since our previous research has already addressed the theoretical foundations of education and training in preparing sustainable business models for SMEs, this study focuses specifically on current case studies and the practice of implementing socialization principles for entrepreneurs and in-house training for SME employees. Although such cases are few, they provide valuable insights into the importance of specific training factors for SME sustainable development.

For example, the work by F. Jong and K. Wagenveld illustrates that achieving sustainable development goals (UN SDGs) is impossible without creating an open consulting institution that can satisfy the demand for information and help restructure business processes towards sustainability. The authors suggest that players in the financial sector, who can provide competent financial consulting focused not only on financial value but also on supporting social and environmental aspects, play a significant role in offering consulting support. This is particularly important for SMEs, which require support for financial stability while simultaneously implementing sustainable development (aligned with SME characteristics and typical challenges in sustainable development).

The authors see sustainable financial consulting as a comprehensive and important tool aimed at stimulating a holistic approach to creating business value (Jong and Wagenveld, 2023).

Several successful practices and programs for training SMEs are already evident in the consulting and support sector. For example, UNEP promotes eco-innovation among SMEs by selectively providing consulting services related to integrating sustainability into value chains (UNEP, 2024). Similarly, the Cambridge Institute for Sustainability Leadership (CISL), in partnership with the We Mean Business coalition (WMB) and through the SME Climate Hub, offers expert knowledge and practical skills in sustainability (BSR, 2024). Constellation also actively promotes sustainable business development planning and provides resources for internal transformations, such as training, upgrading skills, and developing plans for energy consumption and other resources (Constellation, 2024).

A key role in this context is played by the research of S. Suriyankietkaew and colleagues, who describe that the best results in SME sustainable development are seen when a leadership culture is developed within companies, where the leader influences the team (employees). They provide a case study of a sustainable SME in the tourism sector located in Thailand, demonstrating that a sustainable leader with key competencies in sustainable development can develop and integrate value-oriented practices into company operations, encourage sustainable innovation, values, altruism, accumulate and nurture effective social capital, and demonstrate care for employees or other stakeholders. Such leaders' growing interest in creating and implementing sustainable business models is seen as a key and fundamental perspective in supporting entrepreneurs (Suriyankietkaew et al., 2022).

The (United Nations Industrial Development Organization) UNIDO report notes that support for SME sustainable development is based on specialized educational programs that focus on developing competencies related to sustainable development for managers, providing financing, and creating associations based on sustainable development initiatives, ensuring mutual support of business structures and defining transformational prospects (UNIDO, 2024).

At the same time, only trained and committed leaders to sustainable development values can organize in-house employee training and support comprehensive business model changes.

In Moldova, the "EU for SMEs" program provides financial, educational, and consulting resources for businesses; in terms of consulting and education, the program aims to disseminate information on sustainable business practices, launching production with reduced environmental impact, and increasing energy efficiency (UNIDO, 2024).

## **4.2. Survey Results on SME Awareness and Practices**

However, despite the breadth of existing initiatives, it can be inferred that while educational and training services for SMEs on sustainable development are available, they are not in high demand among SME leaders. This finding is supported by the results of our online survey, in which 85.3% of respondents were employees, and 14.7% were business owners within the SME category. Among the respondents, 55.9% of SMEs were in the service sector, 17.6% in trade, 11.8% in manufacturing, and 14.7% in other sectors. The majority of the surveyed companies have been in operation for more than five years (82.4%), while only 11.8% have been in operation for less than a year, and the remaining 5.9% have been operating for 1–3 years.

The first block of survey questions aimed to determine the level of awareness of SME employees and representatives (owners) regarding the concept of sustainable development. Among those surveyed, only 8.8% were not familiar with the concept of sustainable development; 67.6% had heard of it, and 23.5% were fully familiar with and understood the concept. The primary source of information from which respondents learned about sustainable development was the media (42.4% of cases), followed by educational courses/training (27.3%), colleagues/partners (6.1%), independent research (6.1%), and other sources (18.2%).

In terms of awareness, it is important not just to know the concept of sustainable development but also to understand it adequately. Only 5.9% of respondents rated their understanding as high, while for the majority (55.9%), it was at an intermediate level. The most challenging segment consists of employees and entrepreneurs who demonstrated very low and low levels of understanding of the sustainable development concept, accounting for 8.8% and 29.4% of the total sample, respectively. Despite the fact that a significant portion of respondents considered their understanding of

sustainable development to be low or intermediate, 61.8% defined it as a combination of minimizing negative environmental impact, social responsibility, and economic stability; the remaining 38.2% were roughly equally divided among these categories as defining sustainable development for SMEs.

The second section of the survey focused on exploring current sustainable development practices among SMEs as reported by respondents. Notably, only 45.5% of the respondents overall employ sustainable development practices in their businesses, while 54.5% do not. Among those who do, the most common practices include energy-saving technologies (12.5%), waste recycling (8.3%), responsible resource use (29.2%), employee social programs (20.8%), and other initiatives (29.2%). Additionally, respondents indicated a low level of funding for sustainable development—75% allocate less than 5% of their total budget to these practices, and only 10.7% allocate between 10-20% of their budget (the remaining 14.3% allocate 5-10%).

For 45.2% of the respondents, the primary impact of sustainable business development observed to date has been an improved image; for 12.9%, it has been increased employee satisfaction; another 12.9% reported cost reductions; 9.7% cited the attraction of new clients, while 19.4% noted other effects. A crucial question in the survey concerned the difficulties encountered when implementing sustainable development practices. The most common challenges included a lack of knowledge and information (33.3%), financial constraints (30%), lack of government support (23.3%), and other issues (13.3%). Given the significant role of government support in ensuring sustainable development, respondents were asked to assess the adequacy and quality of such support. The results indicated that 29.4% of respondents were unable to provide an objective assessment (finding it difficult to respond); 41.2% rated it as very poor or poor, 20.6% rated it as satisfactory, and only 8.8% considered it good or very good.

Education and training, according to the respondents, play an important (51.5%) or very important (42.4%) role in the development of sustainable business models (only 6.1% disagreed with this statement). Nevertheless, despite the recognized importance of education and training, 76.5% of respondents had not attended courses or training on sustainable development (only 23.5% had attended). Furthermore, these courses were often not found to be useful (as reported by 27.2% of respondents) or were rated as useful to a medium degree (27.3%), low degree (9.1%), or not useful at all (13.6%).

The third section of the survey was dedicated to examining the interests and preferences of SME employees and owners concerning education in sustainable development. Respondents were asked, "What topics related to sustainable development would you like to study?" The responses were distributed as follows: financial sustainability (29.4%), social responsibility (23.5%), waste management (23.5%), energy efficiency (20.6%), and other topics (2.9%). Another question addressed the aspects that respondents would like to see included in the implementation of sustainable development policies in business; 50% of respondents prioritized financial incentives and subsidies from the government, while the second category was access to educational programs and training. Additionally, 11.8% emphasized increasing awareness and informational support, and 13.7% selected other aspects.

Furthermore, 70.6% of respondents suggested developing and enhancing the utility of social networks and online communities in disseminating information about sustainable development. For 61.8% of respondents, professional conferences and forums were included, while 52.9% supported online courses and webinars; 38.2% favored academic research, and 20.6% preferred publications in industry journals.

## 5. Conclusions

Based on the survey results, the following key conclusions can be formulated regarding the role of education and training in preparing sustainable business models for SMEs:

Firstly, there is a low level of awareness and understanding of the concept of sustainable development among respondents. Although only 8.8% of respondents were not familiar with the concept, only 5.9% rated their understanding as high, while 29.4% had a low or very low level of understanding.

Secondly, the primary sources of information about the concept of sustainable development are the media (42.4% of respondents) and courses and training (27.3%), leading to the formation of superficial notions about sustainable development and sustainable business models among SMEs. This situation calls for a more active dissemination of specialized knowledge on sustainable development. Additionally, there remains a low level of participation in educational courses on sustainable development (76.5% of respondents did not attend courses or training; only 23.5% attended such courses, and only 27.2% found them useful).

Thirdly, sustainable development is insufficiently implemented in practice, as only 45.5% of respondents use sustainable development practices and simultaneously face financial barriers (75% of respondents allocate less than 5% of their budget to sustainable development). Therefore, respondents have clear ideas about their needs for receiving benefits and specific expectations from educational programs—they expect financial incentives and subsidies from the government (50%) and access to educational programs and training (26.5%). To address educational challenges, 70.6% of respondents suggest developing and using social networks and online communities to disseminate information on sustainable development, and 61.8% support professional conferences and forums.

Currently, there is a significant number of available educational programs on sustainable development aimed at basic awareness or expanding understanding of sustainable business models. At the same time, financial sustainability is an important part of these programs, contributing to the overall popularization of sustainable development. Although education and training services for SMEs on sustainable development exist and are accessible, they are not in high demand among SME leaders, as confirmed by the results of our empirical study.

There is a pronounced need to intensify educational programs and the dissemination of specialized knowledge about sustainable development among SMEs, provide financial incentives and subsidies from the government, and expand access to educational programs and training, and more. This approach lays the foundation for improving the quality of education and training on sustainable development, with a gradual transition to sustainable business models (which are characterized by the ability to create both financial and sustainable value simultaneously). Key channels for developing educational programs on sustainable development include social networks and online communities for disseminating information, as well as professional conferences and forums, which are necessary for enhancing qualifications in the field of sustainable development. Exploring these topics represents a separate area of interest, along with the content of existing programs and the study of sustainable business models and their key parameters.

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