

SDGs Adoption within Small-Medium Enterprises (SMEs) for Sustainable Entrepreneurship

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Abstract. *The Sustainable Development Goals (SDGs) offer Small and Medium Enterprises (SMEs) a comprehensive and systematic approach to solving major global concerns. SMEs may help to eradicate poverty, promote gender equality, ensure sustainable production and consumption, and address other vital concerns by aligning their business plans with the 17 SDGs. Studies showed that SMEs account for 99% of businesses and employ 66% of Romania's workers, which emerge as critical tools for SDG implementation. Thus, the paper focuses on the adoption of SDGs within SMEs and strategically categorizes key factors into three dimensions: People, Profit, and Planet. The research was conducted with the help of a survey, which was analyzed using Microsoft Excel. The results revealed the need to encourage the promotion and adoption of the SDGs for future generations. The study can be a starting point of the analysis that is done by states, regions or at a national level.*

Keywords: sustainable entrepreneurship, small and medium enterprises (SMEs), sustainable development goals (SDGs), people, planet, profit.

Introduction

In 2015, the United Nations Member States endorsed The 2030 Agenda for Sustainable Development, establishing a comprehensive framework guiding current and future well-being for both people and the planet. Central to this agenda are the 17 Sustainable Development Goals (SDGs), designed primarily to mitigate economic challenges that manifest as social inequalities and impending climate changes.

The SDGs encompass a broad array of socioeconomic issues necessitating attention from national governments, resulting in 17 primary goals and 169 sub-goals, all of which can be monitored through 232 indicators. While these 17 explicit goals may initially appear straightforward, the intricate and multifaceted nature of each SDG becomes apparent when scrutinizing the associated indicators. Despite their diversity, the SDGs collectively serve the overarching aim of providing uniformity and consistency to policy development.

The foundational principles of the 2030 Agenda include universality, emphasizing the expectation that all countries, irrespective of their economic development status, will contribute to sustainable progress. The agenda is committed to leaving no one behind, considering all individuals and providing assistance for everyone. Interconnectedness and indivisibility underscore that global leaders working toward the implementation of the 17 SDGs must address them collectively, avoiding selective prioritization. Inclusiveness mandates that all nations comply with the 2030 Agenda, while multi-stakeholder partnerships, incorporating scientific knowledge, financial resources, and appropriate technology, are integral to achieving the SDGs.

Romania has demonstrated dedication to implementing the SDGs at the national level, updating its National Sustainable Development Strategy to incorporate these global objectives. The strategy, initiated in 1999, aimed at preserving population well-being, natural resources, and ecosystems. Subsequent revisions, notably in 2008, aligned with the country's European Union accession, resulting in the National Sustainable Development Strategy of Romania – Horizons 2013-2020-2030. The current focus for 2030 emphasizes the needs of both present and future generations, aiming to address social, economic, and environmental challenges, fostering a sustainable society. Despite promising progress in the first decade, there remain specific areas requiring additional effort to achieve convergence objectives with the European Union.

Small and medium enterprises (SMEs), constituting 99% of businesses and employing 66% of Romania's workforce, emerge as crucial instruments for SDG implementation. The absence of specific goals and precise developmental metrics may lead SMEs astray from sustainable practices, emphasizing the importance of incorporating SDGs into their policies. The socioeconomic pillar directly influences the environment, and although individual SMEs may seem to leave a modest ecological footprint, their collective impact is substantial. Integrating SDGs into SME policies can enhance their positive societal impact.

The novelty of this work lies in its concentrated effort to provide an overview of the implementation status of the strategy in a disadvantaged area of Romania, comparing it to European levels. By presenting a realistic blueprint, the results encourage the promotion and adoption of the Sustainable Development Goals. To substantiate the significance of Small and Medium Enterprises (SMEs) and their influence in the realm of sustainable entrepreneurship, this paper posits the following research question:

"Research question: SMEs that implement Sustainable Development Goals (SDGs) policies actively contribute to sustainable entrepreneurship."

To validate this hypothesis, the paper undertakes an analysis of the relationship between SME activities and SDGs, focusing on three primary dimensions that delineate the concept of sustainable entrepreneurship: People, Planet, and Profit. Each direction corresponds to one of the 3Ps as subdivisions of the research question affirmed above:

- RQ1: SMEs implementing SDGs policies contribute actively to the social pillar of sustainable entrepreneurship.
- RQ2: SMEs implementing SDGs policies contribute actively to the environmental pillar of sustainable entrepreneurship.
- RQ3: SMEs implementing SDGs policies contribute actively to the economic pillar of sustainable entrepreneurship at least as much as large companies do.

Literature review

Sustainable entrepreneurship

Granting access to the triple bottom line framework (Elkington, 1997), situated at the juncture of economic health, social equity, and environmental resilience, sustainable entrepreneurship transcends the conventional boundaries of entrepreneurship. It introduces a perspective that emphasizes potential benefits for both the environment and society (Savitz, 2013).

Traditional entrepreneurship, primarily centered on economic performance, often neglects the adverse societal and environmental impacts. The persistent challenge for entrepreneurs lies in addressing negative consequences such as mass unemployment or environmental degradation while advancing development solutions. This is where the concept of sustainable entrepreneurship

becomes pivotal – navigating the terrain of providing economically viable and socially/environmentally beneficial solutions while mitigating or avoiding the negative externalities associated with conventional entrepreneurship (Neumann, 2021).

Rooted in historical contexts, the emergence of sustainable entrepreneurship is traced back to the demands for improved working conditions by unions in the 18th century and the subsequent calls for more efficient resource utilization and reduced pollution in the 19th and 20th centuries. Entrepreneurs were compelled to acknowledge the significance of environmental and social factors alongside their pursuit of profits (Li Jianping, 2013).

The Triple Bottom Line model delineates sustainable entrepreneurship as the intersection of the economy, society, and environment (Figure 1). However, critics argued for a re-adaptation, pointing out the absence of prioritization among the three dimensions, leading to potential conflicts when applied in practice (McMullen, 2007). A subsequent model, Passet's Bioeconomy model (Passet, 1996), defines sustainable entrepreneurship as a concept of embeddedness, with entrepreneurship at its core but intertwined with the natural environment and society in concentric circles. Critics, however, questioned its failure to clarify whether it prioritizes the environment or the economy as the reference point (Deutz, 2021).

The third model envisions sustainable entrepreneurship as an integration of the three domains, emphasizing their interconnection within the broader circle of sustainable entrepreneurship (Pasi Heikkurinen, 2019) (Figure 1). Beyond economic goals, this model encompasses more profound dimensions, including the moral, political, and technological aspects.

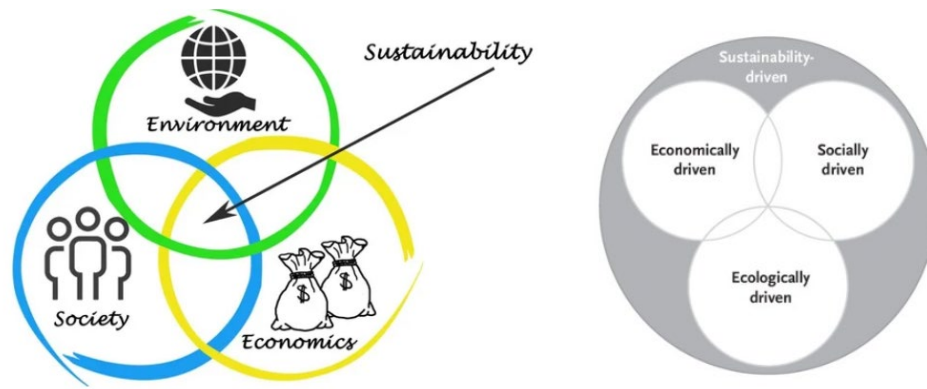


Figure 1. Models of Sustainable Entrepreneurship. a) sustainable entrepreneurship as a concept of intersection; b) sustainable entrepreneurship as a concept of integration

Source: Thazhamon, 2018; Schlange, 2009.

In addition, sustainable entrepreneurship represents a conceptual framework delineating the intricate relationship between sustainable development and entrepreneurship – two inherently interconnected terms within the contemporary development landscape. Prior to the establishment of this definitive syntagm, the literature alluded to this relationship through various expressions such as ecopreneurship, social entrepreneurship, and even institutional entrepreneurship, albeit indirectly. According to (Dana, 2021) earlier authors exclusively focused on environmental entrepreneurship and initially employed the term ecopreneurship.

Sustainable vs sustainability

Despite the shared etymological root in the term to sustain, the words sustainable and sustainability exhibit distinct meanings, with the former being more closely associated with the 3Ps (people,

planet, profit), while the latter conveys the capacity for a state of living to endure over an extended period, particularly in relation to ecosystems (David Grayson, 2022).

The scholarly discourse lacks unanimity in delineating the demarcation between these two terms. The conflation of meanings between the two engenders confusion among many individuals.

The concept of sustainable development is explicated as a developmental paradigm aimed at meeting present needs without jeopardizing the prospects of future generations, emphasizing growth. Conversely, sustainability pertains to the ability to perpetuate sustainable entrepreneurship over time, with a focus on environmental preservation.

Table 1. Parallel between sustainable and sustainability entrepreneurship

Sustainable	Sustainability
Strategy to achieve the goal	Ability to maintain, to endure
Primary objective: development of keeping the environment clean	Primary objective: salvation of the environment
Focus on needs	Focus on wants

While the definitions of these two notions might seem closely aligned, it is essential to comprehensively grasp and incorporate them within short-term and long-term strategies beneficial for both present and future generations.

Sustainable entrepreneurs and sustainability managers collaborate with the shared objective of significantly influencing markets and society. Their goal surpasses mere innovation and successful product introductions; rather, they strive to attain environmental or social objectives through advanced processes and products. In this context, the pursuit of sustainable development necessitates innovation in sustainability, a deliberate outcome resulting from the concerted efforts of leaders who integrate these principles into the core of their entrepreneurial pursuits. These concepts play a pivotal role in generating novel products, techniques, and services aimed at significantly reducing environmental impacts and enhancing overall quality of life.

Notably, sustainable entrepreneurs and sustainability managers actively challenge conventional production methods, traditional market structures, and age-old consumption patterns. However, they do not leave a state of ruin; instead, their mindset aligns with the concept of embracing entrepreneurial activities as a form of creative destruction (Sobel, 2020). They advance by implementing dynamic market patterns, replacing traditional strategies with superior environmental and social services, and introducing new models.

People, Planet and Profit

The 3Ps encapsulating sustainable entrepreneurship – People, Planet, and Profit – are acknowledged as an alternative expression of the triple bottom line business concept. Coined by Elkington in 1997, these 3Ps have evolved as the fundamental pillars of sustainable entrepreneurship, representing the confluence of economic, social, and environmental considerations.

The component labeled People entails the imperative of not causing harm and enhancing the quality of life within the community. Societal impact and commitment to people encompass aspects such as safeguarding human rights, combating gender discrimination, community engagement, ensuring a safe work environment, and rejecting corruption and fraud.

Planet incorporates environmental stewardship, aiming to maintain an ample supply of natural resources for future generations while minimizing the ecological footprint. Historically,

corporations, since the Industrial Revolution, have contributed to climate change through substantial pollution. However, contemporary businesses have the opportunity to address their carbon footprint by adopting measures such as the use of eco-friendly materials, energy conservation, and implementing eco-design in sustainable development systems.

Profit concentrates on sustainable opportunities and innovation, diverging from the conventional financial profit interpretation. In this context, profit extends beyond financial gain, encompassing the allocation of financial gains towards positively impacting the world, thereby steering businesses toward direct success.

Collectively, these three components strive to construct a better future. In essence, the 3Ps model advocates for a harmonious equilibrium between business operations and environmental considerations, symbolized by the mathematical equation: $\text{People} + \text{Planet} = \text{Profit}$ (Savitz, 2013). The model's originator, John Elkington, contemplates the existence of a potential fourth P, derived from Power, which pertains to a business's capacity to extend its influence across environmental, social, and financial domains.

The primary objective underpinning sustainable entrepreneurship is to safeguard and optimize the benefits of the 3Ps. To realize this goal, it is imperative to delineate and establish three fundamental business dimensions: purpose, proactive approach, and partners.

Purpose extends beyond mere financial gains, encompassing the mission, vision, and values of entrepreneurship. A purpose-driven framework implies a well-defined business structure, enabling employees to comprehend the purpose of its existence and motivating them to engage fully in achieving its objectives at the highest level of performance and profit.

A proactive approach is indispensable when unexpected circumstances jeopardize business equilibrium. Acknowledging that immediate reactions could impact at least one of the 3Ps, a proactive strategy for handling such situations could be pivotal in addressing challenges while sustaining the business.

Finally, partners, inclusive of investors, customers, employees, suppliers, and the broader community, play a pivotal role in either promoting or hindering the values and principles of the business. They significantly contribute to its development, closely intertwined with the impact the business has on the 3Ps.

Methodology

To provide the answers need for the analysis, the results of the research done in this paper were possible by applying a survey to the target population selected from Ilfov county.

The selected sample in the study was a simple one (unstratified), with a size of 100 SMEs divided by criteria of using SDGs in two groups of 50 using SMEs and 50 non using. The total size of the sample was initially 116 (56+60), but it was decreased due to misleading responses. The even number resulted from the author's desire to have the same number of responders for both situations.

Data collection was done using online meetings with owners, managers and accountable employees, which had the position and the permission to answer the questionnaire. In addition, we used inclusion and exclusion criteria for the target population as can be observed in table 2. For the analysis of the obtained data MSOffice Microsoft Excel software was used.

Table 2. Criteria for inclusion/exclusion

Inclusion criteria	Exclusion Criteria
- SMEs from Ilfov County - From manufacturing sector - With minimum 5 employees - Minimum of 100k euro turnover/sales - SMEs using SDGs for one group, respectively not using SMEs for the other group.	- non – SMEs enterprises - administrators/shareholders with fiscal records at ANAF

Source: Authors' own creation.

Results and discussions

The potential impediment to accessing new technology, investments, and innovations stems from a deficiency in financial resources. To ensure an equitable comparison between groups, two key parameters must be congruent: the scale of the enterprise in terms of employee count, encompassing the distribution of personnel, and parity in turnover.

From the number of answers gather 49% are micro-sized enterprises with a number between 5 and 10 of employees, 40% are small-sized enterprises and 11% are medium-sized. Related to the employee count the results showed that the two groups analyzed (using and not using SDGs) have approximately the same number of employees. The realization of a more efficient working environment, the retention of top-notch professionals, the enhancement of work methodologies, and the improvement in final products are all contingent upon the profitability of the enterprise. Thus, in Figure 2 it can be seen that the distribution of turnover in the companies is a normal distribution.

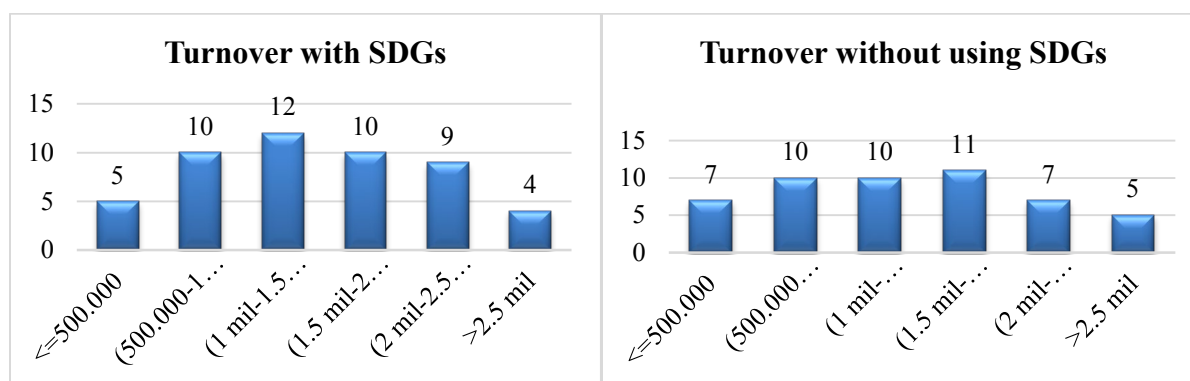


Figure 2. Turnover results

Source: Authors' own research results.

Analyses of the People factor

The evaluated parameters in this section include aspects regarding the impact of implementing and utilizing SDGs in the social part of an enterprise, as ethical problems and well-being of the employees, discrimination, career support and opportunities of development, as well as the socially responsible production.

On a scale from 1 to 5, the interviewed enterprises chose the grade of concerning about the well-being of its employees and their individual needs.

In other words, the question of interest was if the SDGs influence in a positive way on the overall the well-being of companies' employees, paying greater attention to their individual needs. As Figure 3 proves, the group using SDGs has a better score than the one that are not using, meaning the fact that SDGs can improve and sustain the concern about employees.

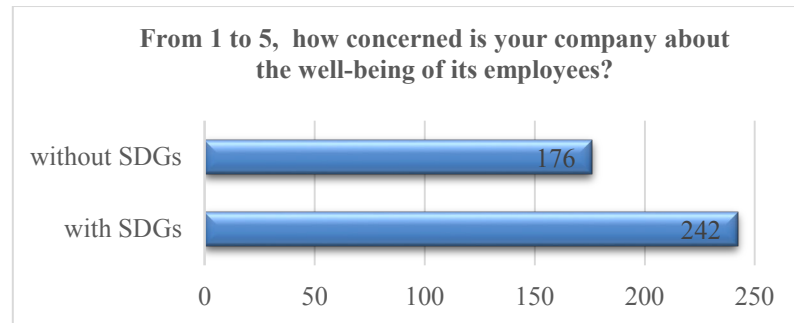


Figure 3. Company concerned about the well-being of its employees in the two groups (with, respectively without SDGs)

Source: Authors' own research results.

The total score of each group was juxtaposed against the maximum achievable score of 250, as delineated by the highest rating on the scale – 5 – multiplied by the total sample size of 50. The mean value derived from this comparison for the group implementing Sustainable Development Goals (SDGs) is 4.84, whereas the counterpart group not adopting SDGs registers a mean of 3.52. Evidently, companies aligning with SDGs exhibit a higher average score in terms of employee well-being. It is also remarkable the higher standard deviation in the group without SDG, which could indicate that something is unstable or companies, disagreed with each other. Conversely, companies endorsing SDGs demonstrate a higher level of consensus, as indicated by a standard deviation of 0.37 (see Table 3).

Table 3. Comparison of the scores in the two groups

	Mean	N	Standard Deviation
With SDGs	4.82	50	0.37
Without SDGs	3.41	50	0.86
TOTAL	4.06	100	0.93

Source: Authors' own research.

The people factor analysis continued with seeing if the companies offer the possibility of employment to the minorities which resulted in an overall percentage of possibility of employment: 88% for the enterprises that are implementing SDGs, compared to the 58% for the ones that are not implementing SDGs. Also, related to gender equality the results expressed that the companies that are measuring their performance by SDGs, have an almost 50/50 ratio of female to male force participation, while the companies that are not implementing SDGs have a ratio of 33/67.

Analyses of the Planet factor

'Is your enterprise environmentally - certified?' An environmentally certified company is one which is environment conscious on all fronts, including energy efficiency, water efficiency, responsible production, and indoor environmental quality, all of which were assessed and graded on a scale for environmental standards. The results revealed that out of the responders, the ones

that are not implementing SDGs have a low percentage of certification (8%), while businesses with knowledge about SDGs have a percentage of 38%. The process of certification is time consuming thus the low percentage it does not mean that the enterprises are not practicing sustainable measures, it can just mean that they are in the process of getting certified or they never applied for a certification due to lack of time or the belief that is unnecessary.

One interesting statistic to note was the fact that the companies that are using SDGs are more actively implied and oriented in environmentally friendly production than the companies that are not implementing SDGs strategies. As Figure 4 proves, the difference between percentages (80% vs 24%) consists in the willing of enterprises to be a sustainable-producing company, conducting their daily operations in a conscious sustainable manner. A rational explanation could be the fact that implementing SDGs goals, lead to have a well-developed plan in becoming a full sustainable producing company.

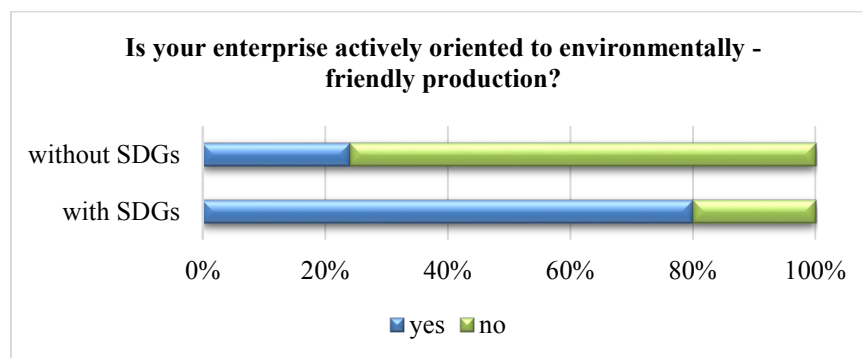


Figure 4. Actively oriented to environmentally – friendly production enterprises in each group (with, respectively without SDGs)

Source: Authors' own research results.

In addition, green energy, or energy produced in a way that is less detrimental and polluting to the environment than fossil fuel energy sources like coal and oil, was used by about 84% of the companies with a SDGs plan, with examples including solar, wind, and hydro energy.

Non-implementing SDGs enterprises have a percentage of 20%, due to the lack of information about their real consumption and economic impact. Implementing green energy throughout a company leads to a better image in front of customers, a small footprint on Planet and economic advantages by reducing the bills.

Analyses of the Profit factor

One interesting statistic to note was the fact that only 60% of the companies that are implementing SDGs have released any new products or services in the last year. The percentage of enterprises not implementing SDGs was 48%. In addition, about 84% of the companies with a clear vision of sustainable development goals have implemented improvements in the last year while the companies without SDGs, have a percentage of 64%.

Regarding the investments made, the results can be seen in figure 5. The data presents a 26 % investment for a range from 10 to 20.000 euro for the companies using SDGs, where the amount invested over 40k Euro is 16% (vs 8% for non-SDGs).

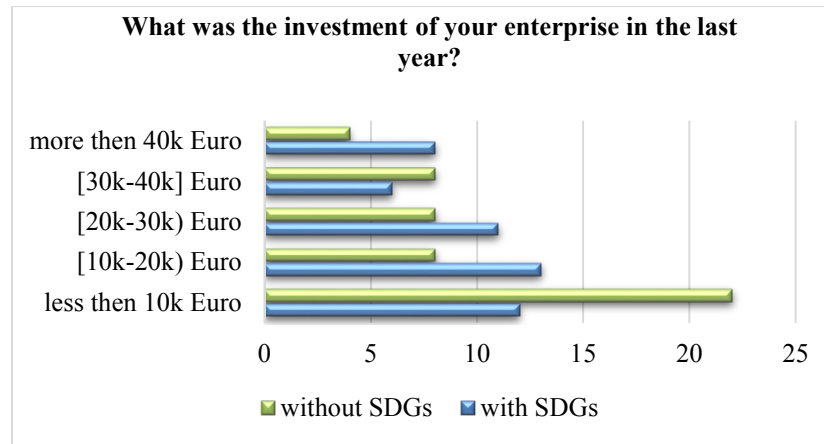


Figure 5. Investment in the last year compared by groups (with, respectively without SDGs)

Source: Authors' own research results.

In the Table 4. it can be observed that the companies with SDGs have a mean of 2.70 which is higher than the companies in the group without SDGs having a mean at 2.28. The standard deviation of 1.389 of the companies with SDG is higher than 1.386 of the companies without SDGs.

Table 4. Frequency table SDG x Scala Mean

	Mean	N	Standard Deviation
With SDGs	2.70	50	1.389
Without SDGs	2.28	50	1.386
TOTAL	2.49	100	1.40

Source: Authors' own research.

To evaluate the significance of this difference it was realized a spilt histogram (Figure 6) for the visualization of the sample data and it was performed Welch t-test. The histogram shows an approximately normal distribution of the investment for the group with SDGs with an apparently higher average than in the other group, while in the group without SDG there is not a normal distribution, displaying a larger number of companies with an investment around 10k Euro and a smaller number of companies with an investment over 20k Euro.

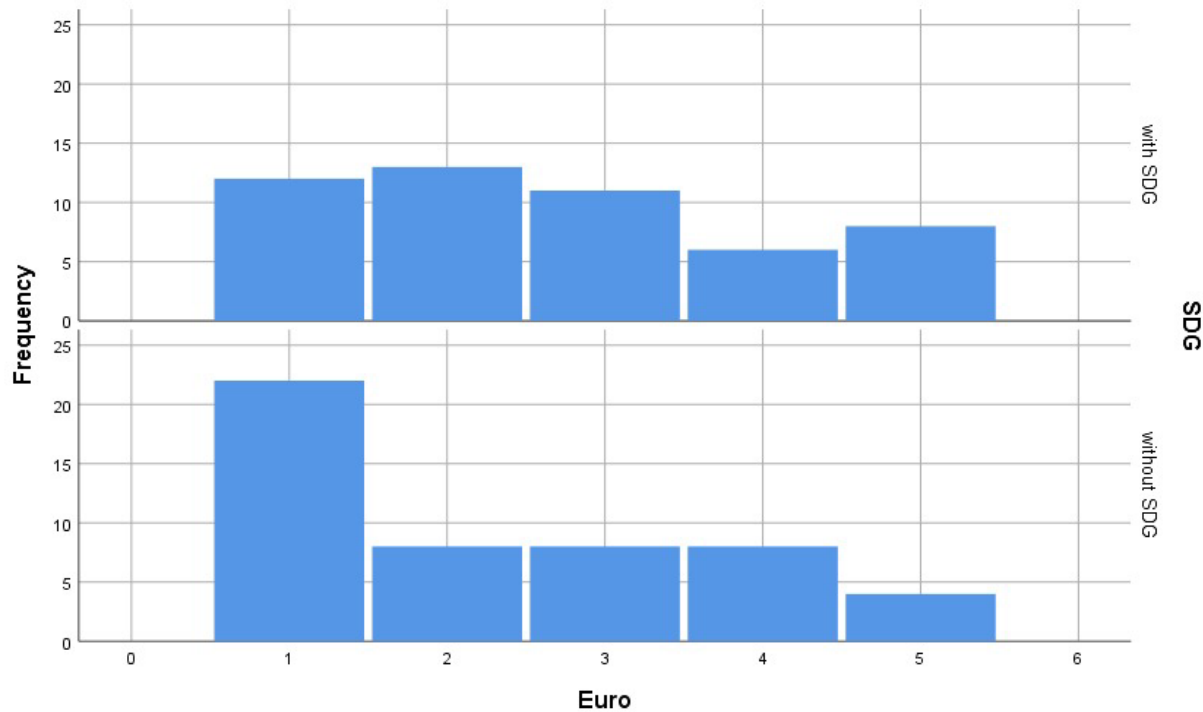


Figure 6. Histogram representing the investment of each group

Source: Authors' own research results.

The independent-samples Welch t-test indicated that there is insufficient evidence to claim a significant difference in the mean scores given to the investment in Euro by the SDG group ($N = 50$, $SD = 2.70$), versus non-SDG group ($N = 50$, $SD = 1.368$), $t(2.70) = 1.514$, $p = 0.133$.

Also, only 4% of the interviewed companies implementing SDGs have decreased their investments in the last year, while 52% of the companies that are not implementing declared that they have decreased their investments. 32% of the SDGs-using enterprises have their investments unchanged compared to the year before, the same percentage being also for the SDGs non-using companies.

The investments in the company activity development, as presented by the responders, lead to cost savings. Some of the most important cost savings came from investments in energy-efficient processes which reduced operational expenses. Moreover, the results showed that companies constantly keep in mind long-term profitability thus, most of them would address SDG to help manage risk related to governance, environmental and social factors.

Conclusion

The realization of the Sustainable Development Goals (SDGs) outlined in the 2030 Agenda necessitates effective implementation and continuous dialogue among all directly and indirectly involved parties. Emphasizing the imperative of integrating SDGs across enterprises, this study underscores the importance of direct collaboration between stakeholders and the Department for Sustainable Development.

This investigation focuses on the adoption of SDGs within Small-Medium Enterprises (SMEs) and strategically categorizes key factors into three dimensions: People, Profit, and Planet. The findings underscore that a lack of clarity regarding essential business pillars can lead

organizations astray from aligning their activities harmoniously with both the planet and their workforce, resulting in suboptimal outcomes and unmet expectations.

The study establishes that SDG implementation serves as a guiding framework for sustaining Romania's Score, an integral component of the economic and social fabric. Key highlights include positive impacts across all three categories: People, Profit, and Planet.

In terms of the People dimension, enterprises adopting SDGs demonstrated heightened concern for employee well-being, a reduction in gender bias, and diminished minorities' segregation. These companies exhibit a strong correlation with encouraging career progression.

The Planet dimension reveals a positive influence of SDGs, evidenced by environmentally friendly production practices, effective waste management, quantifiable reduction in enterprise waste, and the promotion of green energy. Statistical analysis indicates a significant and robust association.

Despite minimal impact on the Profit dimension, integration of a SDGs plan emerges as a strategic approach for SMEs to attain sustainability. Enterprises adhering to SDGs introduce new products and exhibit increased investments, mirroring trends observed in non-SDGs companies. However, the implementation of improvements displays a significant yet weak association with SDGs.

This study aims to guide future research endeavors in the implementation of SDGs policies. Encouraging SMEs to embrace the 2030 Agenda for Sustainable Development, it underscores the potential of SDGs to shape a more sustainable and impactful business landscape. As generators of innovation and economic growth, SMEs are well positioned to play a transformative role in pushing the global sustainability agenda.

In conclusion, study can be seen as a starting point of the analysis that be done which needs to extend by states, regions or at a national level and continue to identify the factors required for achieving sustainable grown and minimize the challenges such as environmental degradation, social inclusion, economic differences etc (Matei et. Al, 2023).

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