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Chapter: Economic Dimensions of Sustainable Development

THE IMPACT OF RISK MANAGEMENT, FINANCIAL PERFORMANCE AND EXECUTIVE REMUNERATION ON SUSTAINABLE GROWTH PLANNING OF SMEs IN THE VISEGRAD FOUR COUNTRIES

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Annotation. Sustainability in the small and medium-sized enterprises (SMEs) is a topic that resonates strongly in the scientific environment. It is a response to phenomena and processes that are becoming an increasingly pressing issue in the socio-economic system of countries around the world. This study aims to identify the significant aspects in the field of enterprise risk management, financial performance, and manegerial renumeration in the SME sector, and to quantify their impact on sustainable growth planning. Extensive empirical research was conducted in 2025, surveying 1,549 respondents from the Visegrad Four countries. The results showed that all the independent variables defined in the areas of risk management, performance, and managerial remuneration have a significant impact on the positive perception of sustainable growth in the SME sector. The mean values of the respondents' answers indicate a positive trend, as the positive evaluations of the defined attitudes, which were formulated as statements or independent variables, prevail in the assessed sample. The highest level of agreement was found for the statement that firms comply with financial reporting standards and regulations. This is followed by the importance of having strategic documents and good current financial position of the firm. Strategy and financial performance management, managerial remuneration, and proper business risk management were observed to have the most significant influence on SMEs' sustainable growth planning. The presented results can not only enrich the theoretical field, but can also be useful for the management system of SMEs.

Keywords: sustainability, SMEs, risk management, financial performance, manager remuneration.

JEL classification: M14, M19, P27.

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Introduction

Sustainability has been a subject of considerable debate within the scientific community for several years. It is a response to phenomena and processes that are becoming a pressing concern in the socio-economic system worldwide. It is necessary for society to respond to environmental problems that pose a significant danger to humankind in the future. It is also imperative to pay more attention to the care of human capital in companies, to ensure its development in the context of new technologies, and to orient management in companies towards the implementation of ESG standards.

The concept of sustainability has long resonated in the environment of large companies. However, nowadays, the emphasis has also been directed towards this subject within the domain of small and medium-sized enterprises (SMEs), which have been recognised as a pivotal component in the socio-economic system. In this paper, the impact of business risk management, financial risk management and financial performance of firms, and the manner in which managers are remunerated, on SMEs' approach to the topic of firm sustainability are investigated (Androniceanu, 2025). These areas are considered to be of particular importance, given their influence on the perception of firm sustainability in the SME sector. The originality and excellence of this research are based on the robust empirical research on the attitudes of SMEs in the Visegrad Four countries (V4). The total number of respondents from the V4 countries was 1,549, which represents a significant sample that provides an opportunity to systematically explore the field.

The structure of the paper is as follows. The first section presents the results of the theoretical analysis of the existing literature. The next section of the article defines the aim of the research, the methodology used, and the scientific hypotheses set. In the two next sections, the research results and a brief discussion of them are presented. The main scientific findings of this research are formulated and presented in the conclusions.

1. Theoretical Background

The capacity of SMEs to develop in a manner that ensures long-term economic stability, while also respecting environmental constraints and contributing to positive social impacts, is the crucial aspect of their sustainable growth. This concept is founded on the principles of sustainable development, which prioritise the equilibrium between economic, environmental, and social factors (Petrakova, Karascony, 2024). Consequently, sustainable growth integrates risk management (Abdi, 2024) and environmental, social and governance (ESG) strategies into a unified framework, ensuring that each decision reflects not only financial objectives but also broader values that are critical to the company's long-term resilience and success (Jonasikova, Konecny, 2024; Rafinda *et al.*, 2024). This approach enables SMEs to not only address current challenges, but also to predict future trends and serve as leaders in sustainability and innovation (Juracka *et al.*, 2024). Moreover, it is imperative to prioritise innovation and growth, as this not only enhances their efficacy and competitiveness but also mitigates their environmental impact, a notion substantiated by research undertaken by Civelek *et al.* (2022). Such growth encompasses the implementation of green technologies (Hasan *et al.*, 2024), the reduction of waste, the efficient utilisation of resources, and the observance of ecological boundaries (Tereshchenko *et al.*, 2023).

The social dimension of sustainable development entails the promotion of equitable working conditions, the provision of training opportunities, and the engagement of businesses with the local communities in which they operate. In the context of working condition, Silberg's (2024) research on Slovak companies found that positive work experiences and the utilisation of one's strengths at work contribute to job satisfaction and job happiness. SMEs are thereby strengthened in their capacity as employers and as active participants in social development (Surya *et al.*, 2021). The significance of sustainable growth is its capacity to guarantee the long-term prosperity of businesses without endangering the resources and conditions for future generations. As stated by Sanchez-Garcia *et al.* (2024), not only does this approach result in economic benefits, such as improved consumer confidence or more effective adaptation to regulations and trends, but it also has broader benefits for society and the environment. SMEs that prioritise sustainable growth are more adaptable to risks and changes, thereby enhancing their ability to contribute to the overall sustainability of the economic system (Michalkova, 2023). The significance of sustainable growth for SMEs is also evident in the context of corporate risk management and the ESG concept that emerges from it. The study by Gholami *et al.* (2022) proves the explanatory effects of ESG and corporate performance using a robust sample of Australian enterprises declaring the relationship between the ESG performance and profitability.

The primary benefit of incorporating sustainability principles into business processes is that it reduces risks and enhances the company's long-term value. As stated by Dvorsky *et al.* (2023), the management of business risks, in conjunction with market, financial, and personnel risks, has a significant and beneficial influence when it comes to the sustainable growth of small and medium-sized enterprises. The management of risk in SMEs is increasingly centred on environmental, social, and governance factors, as these areas have a fundamental influence on the company's capacity to prosper in a dynamic and frequently unpredictable business environment (Hermundsdottir, Aspelund, 2022; Liakh, Spigarelli, 2020). SMEs that pursue sustainable growth can mitigate the risks associated with environmental regulations, climate change, or resource scarcity. It can be achieved through the implementation of measures such as efficient energy management, the reduction of the carbon footprint, and the adoption of a circular economy (Afful, Dvorsky, 2024). In their research, Meng *et al.* (2023) declared that sustainable growth may be demonstrated through the proactive management of factors that influence not only economic outcomes but also the confidence of investors, employees, and customers from an ESG perspective. Investors are increasingly seeking companies with robust ESG practices, which makes it easier for SMEs to secure financing when they consider the environmental consequences of their operations. The social aspect fosters employee loyalty and positive relationships with communities, thereby minimising the likelihood of labour conflicts or reputational damage (Alnehabi, Al-Mekhlafi, 2023). By prioritising transparency and effective corporate governance, SMEs can mitigate legal liabilities and enhance their credibility with their business partners.

When it comes to the planning of sustainable growth for SMEs, some of the most important aspects that influence the planning process are risk management, financial performance, and the manner in which managers are compensated (Durrani *et al.*, 2024). In small and medium-sized enterprises, risk management is centred on the identification, evaluation, and mitigation of possible hazards that have the potential to compromise the company's stability and long-term viability. Considering the research by Settembre-Blundo *et al.* (2021), risk management, as a process encompassing the management of operational, financial, and strategic risks, assumes a pivotal role during difficult periods, averting hasty and erroneous corporate actions, thereby enabling adaptability and resilience. Through successful risk management, businesses are able to effectively predict and respond to unfavourable conditions (Kalogiannidis *et al.*, 2024). An insufficient level of risk management can result in severe financial issues, impact company's reputation, and even cause company failure. In this context, Metzker *et al.* (2023) indicate that financial management significantly influences SME stability in the medium term. Factors positively affecting SME stability include a proper understanding and management of financial risks, along with a positive assessment of the company's financial activities. Deng and Yang (2023) also asserted that companies with strong reputations are more inclined to participate in hedging due to increased reputation expenses and their dedication to minimising financial risks. Nonetheless, the research findings by Kodirjonova and Kim (2023) approved that enterprises with a favourable reputation for corporate social responsibility are more likely to have superior financial success, perhaps due to heightened stakeholder trust and loyalty, stronger risk management, and better access to finance. However, the financial interconnections among enterprises in the global market necessitate the evaluation of bankruptcy risk, considering the risk management in the context of new perspectives on sustainability (Campobasso, Boscia, 2023). As revealed by Habib (2023), some factors cannot be omitted anymore when mitigating the company's failure probability, which are not only financial but also ESG performance indicators. This study illuminates the manner in which effective company strategies and ESG performance reduce financial suffering. The study also analyses the mediation roles of financial and ESG performance to aid company's decision-makers in enhancing performance and in achieving best practices.

Nevertheless, financial performance is a basic indicator of a company's ability to generate profit, maintain liquidity, and finance its growth. Monitoring important financial metrics on a consistent basis is essential for businesses. These indicators include return on assets, return on equity, gross and net margins, and debt ratios (Tudose *et al.*, 2022). One of the most common challenges faced by SMEs is restricted access to external finance as pointed out, for example, by Zvarikova *et al*. (2024). This underscores the need of optimising internal financial operations and ensuring good management of working capital. Managerial remuneration is crucial in motivating companies to achieve their strategic goals. The SME sector is characterised by a combination of fixed and variable pay, with the latter being more frequently related to the overall success of the corporate entity (Belas *et al.*, 2020; Janasz *et al.*, 2024). Examples of variable components that may be included are bonuses that are contingent on the attainment of particular financial or non-financial key performance indicators. Properly configured payment schemes provide managers with the support they need to make decisions that lead to long-term growth and sustainability (Kunz, Heitz, 2021; Medne, Lapina, 2019). However, improperly configured mechanisms can encourage reckless and short-term behaviour.

In order to quantify these aspects in connection to sustainable improvement, it is necessary to conduct a thorough investigation. Growth in sales, earnings before interest and taxes, or the ratio of investments in innovation to total sales are all examples of financial indicators that may be used to evaluate a company's capacity to maintain growth over time (Valaskova *et al.*, 2023; Bugaj *et al.*, 2023). Indicators of risk management, such as the number of risks that have been detected and managed, as well as the consistency of cash flow, are factors that contribute to determining whether or not a firm is well prepared for a turbulent environment. Regarding the compensation, Wang *et al.* (2021) recorded that it is possible to investigate the connection between the structure of compensation and the performance of the organisation. It is also possible to identify significant connections between the implementation of motivating measures and the accomplishment of long-term growth objectives (Bandhu *et al.*, 2024). The outcome of this study ought to be a plan that brings the goals of risk management, financial performance, and manager compensation into alignment with the long-term goals and priorities of business entities.

2. Aim, Methodology, and Data

The aim of the research was to define the significant aspects of risk management, financial performance and executive remuneration practices in the SME segment and to quantify their impact on sustainable growth planning. The fulfilment of the aim was based on the implementation of an empirical research aimed at identifying the attitudes of SMEs in the field of Environmental, Social, Governance (ESG), which was conducted in May 2025 in the Visegrad Four countries (the Czech Republic, Slovakia, Poland, and Hungary). The data collection was carried out by the renowned external firm MNFORCE utilising the "Computer Assisted Web Interviewing" (CAWI) research method. according to a questionnaire developed by the research team. The inspiration for the preparation of the questionnaire came from the findings of the scientific papers by Song (2024), Zhu and Wang (2024), Wu *et al.,* (2024), Katsamakas and Sanchez-Cartas, (2023), Liu *et al.* (2023), Edmans, (2023), Tan *et al.* (2023), Zhu and Huang (2023), Yip and Yu (2023), Tsang *et al.* (2023), and Jo and Kwon (2022).

The questionnaire was comprised of 38 questions, of which six were aimed at ascertaining basic information regarding the firm (e.g. size of the firm, legal form of the firm, area of operation, length of business, gender of the respondent, and position in the firm: owner or manager). The next section included questions related to the ESG concept. The respondent could answer the statements in the second part of the questionnaire by selecting one of the following answers: "completely agree", "agree", "do not take a position", "disagree", and "completely disagree". The questionnaire could be completed by the owner or senior manager of a SME. Based on the defined requirements by the research team, MNFORCE ensured adequate respondent structure, representativeness of the research, and random selection of respondents.

The research team defined five significant factors that determine the attitude towards sustainable growth planning of SMEs in the V4 countries. These factors were presented through statements. They were identified as independent variables in the research. The dependent variable was an assertion that represented a significant area in the sustainable growth management of SMEs.

y: *Our company has plans to ensure sustainable growth.*

x1: Our company has a business risk management directive.

x2: Our company has developed a strategy and policies to manage financial performance and financial risks.

x3: Our company complies with financial reporting standards and regulations.

x4: Our company rewards executives not only according to profits but also according to their care for employees and the environment.

x5: Our company's current financial performance is good.

The statistical hypothesis was stated as follows:

H: Sustainable growth planning of companies in the V4 countries is determined by factors x1–x5.

y = f (x1-x5)

The present study employed correlation analysis to assess the relationships between variables and to test statistical assumptions. The impact of the selected factors on sustainable growth planning in the SME business environment was investigated using a linear regression model (LRM). This regression method was used to test the scientific hypotheses at a significance level of $\alpha = 5\%$. Linear regression modelling was also employed to convert the data from the quantitative survey, which utilised a Likert scale (rating from 1 to 5), into a linear form. It was assumed that positive ratings of the independent variables (x1– x5) would result in positive ratings of the dependent variable (y). This verified the relationship between the statements x1 to x5 and the transformation of *y* for owners and top managers of SMEs in all V4 countries.

3. Results

The total number of respondents from the V4 countries was 1,549. The respondents were structured by nationality: 384 (24.78%) from Slovakia, 389 (25.1%) from the Czech Republic, 391 (25.23%) from Poland, and 385 (24.88%) from Hungary. 716 (46.22%) owners and 833 (53.78%) managers participated in the empirical research. The data indicates that 630 (40.67%) micro enterprises, 371 (23.95%) small enterprises, and 548 (35.38%) medium enterprises participated in the study. In terms of legal form, the structure was as follows: 505 (32.60%) sole proprietorships, 614 (39.64%) limited liability companies, 175 (11.30%) joint stock companies, and 255 (16.46%) other forms of business. The largest number of firms were in the service sector (492), accounting for 31.76%, followed by the following sectors: 289 trade (18.66%), 267 manufacturing (17.24%), 130 construction (8.39%), 69 transport (4.45%), 31 tourism (2.00%), and 26 agriculture (1.68%). There were 245 firms conducting business in other areas, accounting for 15.82%. With regards to the duration of business, the structure was as follows: 547 (35.31%) up to five years, 413 (26.66%) from five to ten years, and 589 (38.02%) over ten years. The total number of respondents from the V4 countries was 816 (52.68%) females and 733 (47.32%) males.

The range of the mean values of all variables analysed falls between 2.01 and 2.45 (on a scale of 1–5), indicating moderately agreeable to neutral ratings by respondents. The smallest variance was for x3: adherence to standards (variance = 0.8247), indicating the most consistent responses among respondents. For question x4: remuneration of senior staff, the greatest variance (variance = 1.1188) was observed, indicating that respondents had more diverse views on this item. In terms of the skewness and skewness values, which are within the interval <-2;2>, it was established that the data are normally distributed, thus enabling regression and correlation analysis calculations to be conducted.

The correlation matrix shows the degree of linear relationship between the dependent and independent variables. All values range from 0.50 to 0.61, indicating the presence of moderate to strong positive correlations between the variables. The dependent variable y is positively correlated with all the independent variables, indicating that higher values in each factor x positively influence the perception of sustainable growth planning in the company.

Table 1. Statistical Results

Descriptive	*y*	*x1*	*x2*	*x3*	*x4*	*x5*
Mean	2.1995	2.3719	2.2576	2.0148	2.4538	2.2886
Std. Error	0.0249	0.0261	0.0252	0.0231	0.0269	0.0241
Std. Deviation	0.9789	1.0261	0.9903	0.9081	1.0577	0.9469
Sample Variance	0.9582	1.0529	0.9808	0.8247	1.1188	0.8966
Kurtosis	0.3827	-0.0097	0.3640	1.0890	-0.1206	0.1768
Skewness	0.7592	0.5881	0.7494	0.9398	0.5346	0.6172
Count	1549	1549	1549	1549	1549	1549
Correlation	*y*	*x1*	*x2*	*x3*	*x4*	*x5*
y	1					
x1	0.5879	1				
x2	0.6187	0.6882	1			
x3	0.5024	0.4891	0.5646	1		
x4	0.5657	0.5402	0.5735	0.4449	1	
x5	0.5539	0.5510	0.5744	0.5179	0.5728	1
Regression			*Coefficients*	*Std. Error*	*t Stat*	*P-value*
Multiple R	0.7088	**Intercept**	0.2178	0.0540	4.0365	0.0001
R Square	0.5024	**x1**	0.1782	0.0249	7.1545	<0.0001
Adjusted R Square	0.5008	**x2**	0.2215	0.0275	8.0447	<0.0001
Std. Error	0.6916	**x3**	0.1298	0.0247	5.2625	<0.0001
Observations	1549	**x4**	0.1844	0.0221	8.3299	<0.0001
		x5	0.1507	0.0254	5.9252	<0.0001
ANOVA	*df*	*SS*	*MS*	*F*	*P-value F*	
Regression	5	745.2762	149.0552	311.6074	<0.0001	
Residual	1543	738.0833	0.4783			
Total	1548	1483.3596				

Source: own processing.

The findings of the regression model (see Table 1) indicate that all independent variables significantly influence managerial decisions in the context of sustainable growth planning in the company. These factors (x1–x5) of 50% (Adr. R Square = 0.5008) influence the dependent variable. This regression model is statistically significant (p-value = < 0.0001).

The regression model is as follows:

*y = 0.2178 + **0.1782 x1** + **0.2215 x2** + 0.1298 x3 + **0.1844 x4** + 0.1507 x5*

Based on the regression model results, it can be concluded that the hypothesis has been accepted. All independent variables significantly affected the dependent variable y.

4. Discussion

The findings of the research demonstrated that all the defined independent variables exerted a significant effect on the dependent variable. The mean values of the responses indicate that the majority of the research sample hold positive attitudes towards the defined variables. The lowest mean of SMEs' assessed attitudes was found for statement 3, in which SMEs declared compliance with financial reporting standards and regulations. This trend can be explained by the fact that this obligation is strictly monitored and evaluated by the relevant government authorities (Androniceanu, 2024). The second lowest mean value was found for the independent variable x2. For this statement, companies were asked to comment on whether their companies have developed strategies and policies to manage financial performance and financial risks. It is evident that if companies successfully manage financial performance and risk management, their approach to managing sustainable growth will be positive. In this context, it seems slightly paradoxical that the average value of x1 is higher than the average value of x3. This may signal a situation where SMEs are unlikely to take a systematic approach to business risk management. The third lowest mean value was the companies' claim that their current financial performance is satisfactory. This result clearly predicts a more positive attitude towards a sustainable raster, as companies do not need to address performance-related issues.

The independent variable x2 showed the most significant effect on the dependent variable y. It can be argued that strategy and financial performance management has the greatest influence on the existence of governance documents in which SMEs plan procedures and actions to ensure sustainable growth. This conclusion is consistent with the findings of several authors who emphasise the importance of risk management and financial performance in the process of planning for sustainable growth of SMEs (Durrani *et al.*, 2024), perceive these processes as barriers to wrong decisions and response to adverse conditions (Kalogiannidis *et al.*, 2024), and reduce the risk of financial problems (Habib, 2023). In this context, Belas and Rahman (2023) highlight some differences in the perceptions of financial management between company owners and managers.

The second most significant effect was demonstrated by the variable x4. It is understandable that if companies reward their managers according to their care for employees and care for the environment, which are key components of the social and environmental pillar of ESG, then this has an impact on positive perceptions of sustainable growth. Proper business risk management (variable x1) showed the third most significant effect on the independent variable y. The importance of properly set managerial compensation is highlighted by several authors in their research. For example, Kunz and Heitz (2021), Medne and Lapina (2019), and others have reported that the implementation of proper reward systems motivates managers to make decisions that promote the long-term growth and sustainability of SMEs.

The present study has also highlighted the importance of complex business risk management. This approach is preferred by Dvorsky *et al.* (2023). Currently, several authors see this area as very closely intertwined with the concept of ESG, which is in line with our findings. Hermundsdottir and Aspelund (2022), Liakh and Spigarelli (2020), as well as Meng *et al.* (2023), similarly emphasise the priority focus of enterprise risk management on the environmental and social domain. In this context, Khan *et al.* (2023) put forward an interesting idea that in the current economic situation, it is imperative to understand the SMEs' perception towards sustainability aspects, not only about understanding but also believing they are significant for the firms' sustainability. In the context of SMEs' sustainability, Krisciukaitiene and Bathaei (2024) present the interesting idea that sustainable supply chain management is essential in addressing environmental, economic and social challenges in the resource-intensive sectors in which SMEs operate.

Conclusions

The aim of the research was to define significant aspects in the area of enterprise risk management, financial performance and the manner in which managers are remunerated in the SME sector, and to quantify their impact on sustainable growth planning. The results of the research showed that all the defined independent variables in the areas of risk management, financial performance and managerial compensation method have a significant impact on the positive perception of sustainable growth in the SME sector. The mean values of the respondents' answers indicate a positive trend, as the positive evaluation of the defined attitudes, which were formulated as statements or independent variables, prevails in the assessed sample. The highest level of agreement was found for the statement that firms comply with financial reporting standards and regulations. This is followed by the importance of having strategic documents and good current financial position of the company. Strategy and financial performance management, the way corporate managers are remunerated, and proper business risk management have been demonstrated to have the most significant impact on SMEs' sustainable growth planning.

This research was conducted in the V4 countries, which determines its regional validity. However, the results presented add to the discussion on sustainable growth of SMEs, as they quantify the impact of unique factors on the area under study. It should also be stressed that the research methodology presented allows replicating this research in other regions.

Future research will focus on developing a comprehensive model of the dependence of sustainable growth of SMEs on defined independent variables in several areas.

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RIZIKOS VALDYMO, FINANSINĖS VEIKLOS REZULTATŲ IR VADOVŲ ATLYGINIMŲ ĮTAKA TVARAUS MVĮ AUGIMO PLANAVIMUI VIŠEGRADO KETVERTO ŠALYSE

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Santrauka. Tvarumas mažųjų ir vidutinių įmonių (MVĮ) sektoriuje – daug dėmesio mokslinėje aplinkoje sulaukianti tema. Tai reakcija į reiškinius ir procesus, kurie tampa aktualia pasaulio šalių socialinės ir ekonominės sistemos problema. Šiuo tyrimu siekiama apibrėžti svarbius aspektus įmonių valdymo, finansinės veiklos rezultatų ir vadovų atlyginimų srityje MVĮ sektoriuje ir kiekybiškai įvertinti jų įtaką tvaraus augimo planavimui. Tyrimo rezultatai atskleidė, kad visi nustatyti nepriklausomi kintamieji rizikos valdymo, veiklos rezultatų ir vadovų atlyginimo srityse reikšmingai veikia teigiamą tvaraus augimo suvokimą MVĮ sektoriuje. Respondentų atsakymų vidurkiai rodo teigiamą tendenciją, nes vertinamoje imtyje vyrauja teigiamas nustatytų požiūrių, kurie buvo suformuluoti kaip teiginiai arba nepriklausomi kintamieji, vertinimas. Didžiausias pritarimas nustatytas įmonių finansinės atskaitomybės standartų ir taisyklių laikymosi teiginiui. Pateikti rezultatai ne tik praturtina teorinę sritį, bet ir gali būti naudingi MVĮ valdymo sistemai.

Reikšminiai žodžiai: tvarumas; MVĮ; rizikos valdymas; finansinės veiklos rezultatai; vadovų atlyginimai.