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Sustainable Financing and ESG Investments in the Context of the VUCA Environment

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Abstract. *In the current economic context, at the global level, the problem faced by organizations is determined by the means of environmental protection and the reduction of the negative effects of the ongoing activities, adopted at the organizational level. Thus, the objective of the research in this paper is to identify concepts such as sustainability/sustainable development within organizations and their financing mechanisms.*

The aim of the research is to contribute to increasing the knowledge of the tools for the sustainable development of companies, through the new sustainability approach that aims to re-educate both the business environment and the consumer, the ESG standard being a competitiveness trigger. The volatility, uncertainty, complexity and ambiguity of the mechanisms developed and adopted at the level of organizations, being able to be reduced by adopting effective strategies based on ESG principles at the managerial level.

The research methodology includes both secondary data collected from European Commission information sources, articles and existing specialist content in the direction of the development of ESG factors and the VUCA world, as well as the authors' interpretation based on the collected information.

The existence of funding instruments such as the Horizon Europe, Life Programme, Innovation Fund (IF) programs granted through non-reimbursable development projects to encourage sustainability directions in terms of economic, social and governance factors within organizations is demonstrated. Also, the financing of sustainable development projects contributes to the consolidation of the VUCA phenomenon, namely the realization of complex projects in both the public and private sectors, in a volatile market with unpredictable factors as a result of the globalization process.

Keywords: sustainability, ESG factors, investments, VUCA environment, management

Introduction

According to the Regulation of the European Parliament and of the Council of 27 November 2019 on sustainability information in the financial services sector, it has a key role in the transition to a more efficient and sustainable economy, encouraging more transparency. The development of

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sustainability factors in decision-making processes within organizations and in investment analysis processes can generate superior benefits both for the organization's activity and for consumers.

The concepts regarding the economic, social and governance factors in the context of a volatile, uncertain, complex and ambiguous business environment are developed in the specialized literature with a weak applicability due to the element of novelty within it as well as the need to adopt a decision-making transparency at the organizational level. Thus, this study investigates the most effective directions of application of sustainability factors as well as the results obtained following their implementation.

The study aims to carry out a detailed analysis of the interdependencies between the ESG phenomenon and the VUCA world, the influence of ESG factors on the VUCA environment and the identification of financing systems for the development and alignment of projects in accordance with the particularities of the two concepts. Also, following the identification of funding sources, the correlation between public and private sector investments will be established in terms of funding mechanisms and the necessary elements that must be developed and implemented to facilitate more effective reporting of ESG factors within companies in order to optimizing the investor analysis process.

The paper is structured as follows: in the second section, the specialized literature is reviewed in the direction of the analyzed concepts, further presenting the research methodology and the analysis of changes in the financing system following the application of the particularities of ESG factors and the VUCA world. Also, within this chapter, financing mechanisms and their applicability will be identified. In its continuation, the results and conclusions section related to the research carried out on the basis of the processed data will be developed.

Literature review

The globalization process that has appeared worldwide offers more and more challenges to market actors, both the public and the private sector, increasing the need for adaptability to the environmental conditions of which they are a part. The tools for solving the problems that arise at the managerial level and the decisions made with increasingly detailed analyzes on various development directions, force managers to adapt to the requirements of the external environment, to know the type of client, the products, the technology and the regulations in force.

Thus, the ESG concept was born in the VUCA world, their interconnection being a critical and imperative function necessary to adapt the challenges to environmental, social and governance changes in a complex environment, with many dependent variables generating uncertainty, ambiguity and with a market volatile for many reasons.

In a world where climate change is becoming more and more pressing, companies that want to attract investment must also consider criteria related to environmental protection and sustainability.

Today, the ESG criteria - environment, social, governance are no longer just a trend in the field of investments, but an essential element to attract the attention of investors. IFAC (2012).

ESG issues were first addressed in a UN report in 2006, referring to the Principles of Responsible Investment.

Prioritizing sustainability elements in the decision-making process and the investment advisory process can bring greater benefits than when they are not taken into account. This can contribute to improving real economic resilience in all areas of work as well as stabilizing the financial system (Sustainable Futures, 2022).

Within the new approach to globalization at the international and local level, ESG has become an increasingly important factor in companies and in the efficient running of their activities (Păduraru, 2020). The ESG concept focuses on practical quantification and an integrated business strategy.

In order to comply with the ESG concept and for it to bring about changes, according to the Corporate Governance Code for companies listed on the Warsaw Stock Exchange (WSE) on the main market, companies should address the following aspects in their development strategies:

1. Environmental factors, including measures and risks related to climate change and sustainable development, providing transparency regarding the company's decision-making processes;

2. Social factors and human resources, including the elimination of discrepancies in terms of equal opportunities and gender, an optimal work environment, the involvement of local communities and customer relations (Indik.M, 2022).

ESG – environmental, social and governance measures facilitate the description of the social environment and governance issues that influence investment decisions within companies.

The three determining factors of the concept are represented with their particularities of development in the figure below:

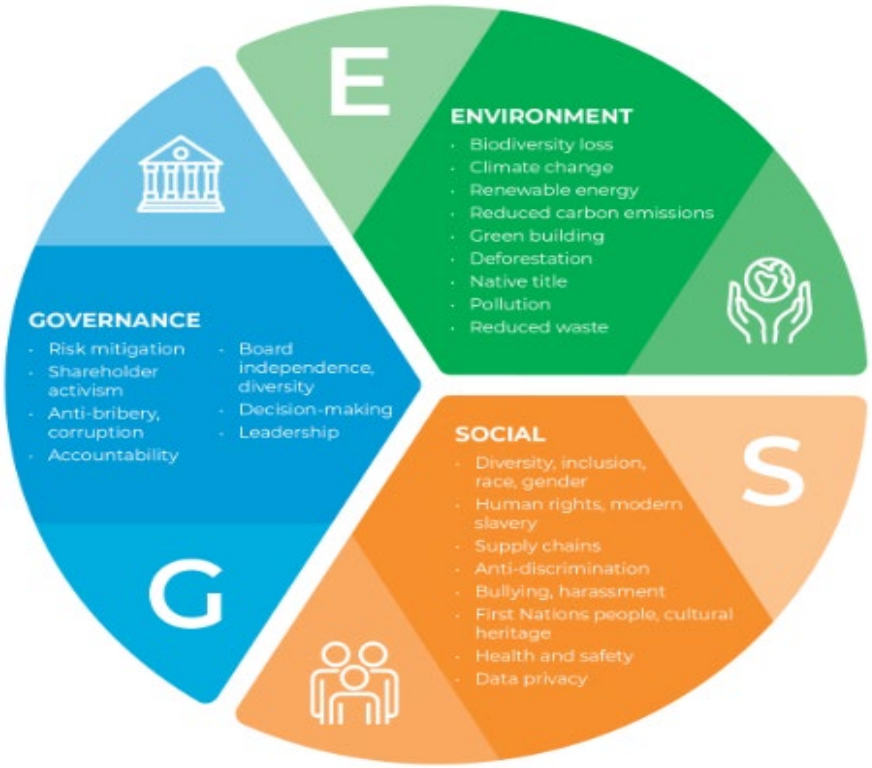


Figure 1. Particularities of development the factors of ESG concept

Source: Holding Redling.

The environment addresses the issue of the impact of activities on air quality, waste production and disposal, water and wastewater management as well as greenhouse gas emissions. The social factor emphasizes the need to carry out projects in the direction of the health and safety of human resources, the security of personal data, human rights, diversity-equity and inclusion, as

well as the involvement of employees in the decision-making processes within companies, eliminating discriminatory factors.
The governance element highlights the need to design business ethics solutions, internal risk management, systemic risk management as well as diversity and competitive behavior.

ESG factors and how to measure them
ESG factors - Environmental, Social, Governance according to European Commission regulations represent aspects of the operational activities of companies that have an impact on the environment and people (customers, employees, suppliers and others) and refer to the way in which a company carries out its activities business (corporate governance). Thus, in the evaluation of a company, these factors can be measured by indicators that will convey to potential investors the degree of attractiveness for a possible investment.

Good governance is indispensable for the efficient management of resources, for the well-being of current and future generations (Castro, Lopes, 2022) and for increasing transparency at the decision-making level within organizations

VUCA world
This term was coined by the US Army War College in the late 1990s of military origin to describe the new multipolar order after the Cold War ended.
Later, it was found applicable in the business environment to describe the instability and rapid change of working conditions, but also to explain the vital need to adapt to rapid environmental changes and the rapid adoption of new methodologies, to manage a difficult system of controlled (Lawrence, 2013, p.3)

The science of management, both from a theoretical and a practical point of view, felt the need for more tools for development, guidance and correction, so various types of conjunctural models were created to solve problems specifically in one of the four directions.

The phenomenal VUCA has become a trending managerial acronym within companies, being an abbreviation for volatility (high rate of change), uncertainty (uncertainty related to the present), complexity (multiple decision factors) and ambiguity (lack of clarity related to events) . This concept combines four different types of responses for management teams regarding the elements of the name composition (Harvard Business Review).

One of the most important behaviors present within the concept is that of focusing on the external attitude, at which point the emphasis is no longer on changing the external environment, but on adapting to concrete situations and generating the most favorable results.

The two main questions in the VUCA world, effectively analyzed, guide the direction of application and stabilization of situations, these being "*How well can the results of actions be anticipated*?" and "*How much can a situation be known*?".

Next, we will focus on the meaning of each element of the VUCA world concept as follows: *"Volatility*", changes are unpredictable and unstoppable, and the environment is changing and will change more and more rapidly. Because of the rapidity with which changes occur, it is almost impossible to clearly determine their cause and effect. Fluctuations in market demand, turbulence, price variations at certain critical moments are just some of the challenges that appear unexpectedly even if they are somehow foreseen.

"*Uncertainty*", in the VUCA world it is difficult to anticipate events or predict when they will unfold and what the consequences will be. The underlying cause and effect of the event are known, but cannot always be predicted based on statistical data. An example is the "butterfly effect"

phenomenon that manifests itself all over the world and in the future will make its presence felt even more due to the intensified globalization process (Cousins, 2018).

"*Complexity*" - the situations that arise and the decisions that must be made at the managerial level and beyond are interconnected and depend on several variables. Some of them can be foreseen, but the external factors and the elements that generate risks are not always predictable, so there are a lot of possibilities but their realization is extremely complex. A good example is that of carrying out the activities of a company in several countries, at different price levels, under various legislative regulations, different cultural and social environments (Minciu, 2021).

"*Ambiguity*" - presents a lack of clarity in what the events entail, as there are no precedents for them. It is not clear what we know and what we do not know about a given situation at the level of analysis and decision. Understanding causes and effects and generating hypotheses can be a good way to analyze and mitigate this problem.

This is the VUCA world, volatile, uncertain, complex and ambiguous, which causes business models and their strategies to change according to the relationship of the four dimensions explained earlier.

The processes of the ascent of today's organizations face various challenges, most of them being correlated with the elements of the VUCA and ESG world such as legislative, social changes around the organization that leave their mark, affecting the behavior of decision-makers and implicitly the flow of activity (Sinha, 2020).

According to the study carried out by Bennett and Lemoine (2014) in the United States of America, the emphasis of the globalization process through the recession is highlighted, which impacts industries and generates consequences on the activity of organizations, political and social factors as well as on human resources, mainly on the leaders who they have to make decisions in a complex and uncertain context.

Methodology

Changes in the financing system following the application of the ESG concept and the VUCA world

The financial system has a key role in transforming the economy towards a more efficient and sustainable one, by redirecting private capital towards sustainable investments and encouraging more transparency. Effectively applied sustainability factors can contribute to increasing the resilience of the real economy and the stability of the financial system, the effect being on the yield of financial products (Păduraru, 2020).

Regarding the revitalization of rural areas, the European Commission has established certain development directions in accordance with sustainability criteria, being in correlation with ESG objectives.

According to the European Commission (2022), sustainable financing is the process by which certain EU institutions allocate financial resources to public sector institutions of member states or companies that set sustainable development objectives. This is measured through environmental, social and governance (ESG) factors.

In recent years, ESG factors have grown in importance in the financial analysis of companies by investors. Thus, environmental, social and governance factors are analyzed by investors in order to identify and quantify the risks of the investment and the scaling opportunities of the respective company.

The European Union, through the European Green Deal, sets the development directives to become a global leader in the transition to a green future. Thus, sustainable finance is understood

as finance that supports economic growth, favoring the achievement of environmental objectives and taking into account social aspects of governance.

Who provides sustainable funding?

The estimated value of the projects for sustainable development to be implemented in Romania until 2030 is 60 billion euros, both at the governmental level and for the private sector. The European Investment Bank grants, through the National Recovery and Resilience Plan (PNRR), 25 billion euros for Romania in order to develop sustainable projects.

For the implementation of development projects in the direction of ESG factors, the European Union offers funding through the following funding mechanisms:

• Horizon Europe – the funding program designed to allocate funds for research and innovation, contributes to the development of climate change projects, sustainable development objectives and stimulates EU competitiveness and growth.

The focus is on aligning with global challenges and at the same time using digital technologies, stimulating economic growth and optimizing the impact of investments.

Within the Horizon Europe funding program, 3 development pillars are pursued as follows

Pillar 1- Scientific excellence, with grants awarded for:

Beginning researchers - up to 1.5 million Euros, to those with 2-7 years of experience after completing their doctorate;

Researchers in the consolidation phase - up to 2 million Euros, to those with 7-12 years of experience since completing their doctorate;

Confirmed researchers – up to 2.5 million Euros;

Synergy grant - up to 10 million Euros, for teams composed of 2-4 researchers.

Pillar 2 – Clusters – 53.5 billion Euros

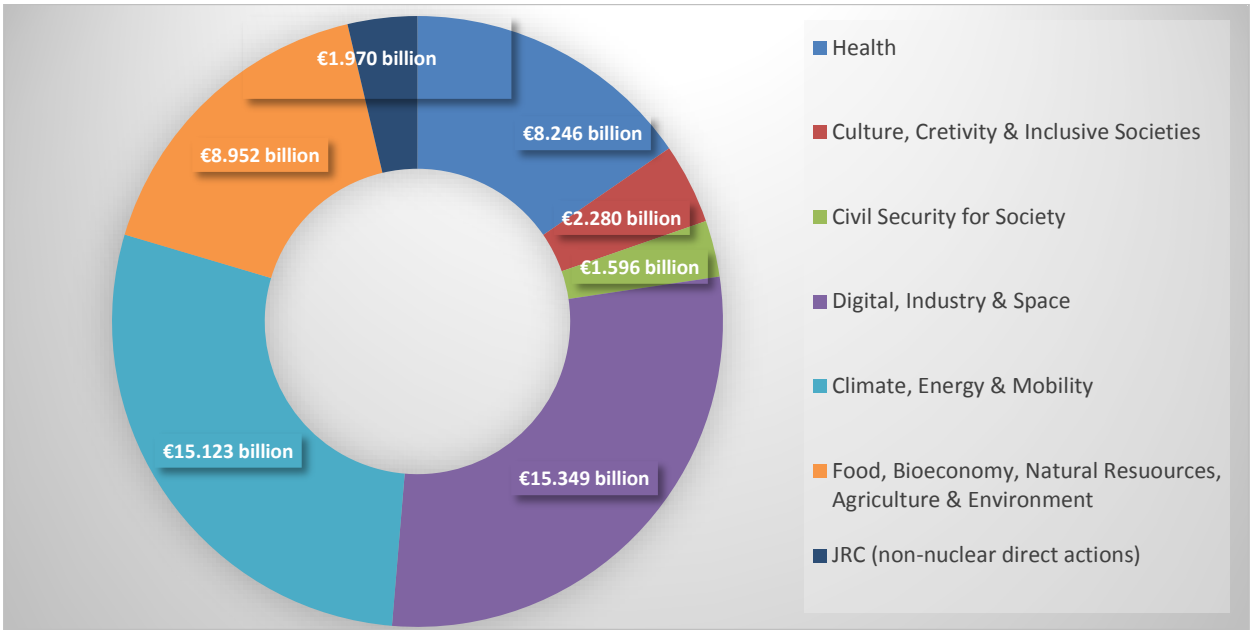


Figure 2. Clusters of the second pillar of the Horizon Europe funding program

Source: Own interpretation based on data provided by the European Commission.

According to the graphic representation above, the European Commission has established the seven directions of development within pillar II of the Horizon Europe funding program, with

the main focus being on digital development, health, natural resources (environment) and climate. Thus, within this financing program, investments are encouraged according to ESG factors and the VUCA world, the clusters being forced to develop complex solutions in a volatile and unpredictable market in terms of future events.

Pillar III – an innovative Europe with a focus on the development of breakthrough innovations and ecosystems with a budget of around EUR 13.6 billion (Horizon Europe, 2022).

- LIFE Program – the European funding program dedicated to environmental, climate and green energy objectives that provides support for projects that consider biodiversity, the circular economy and quality of life, mitigation and adaptation to climate change and the transition to clean energy.
- Innovation Fund (IF) – program financed by the EU Emissions Trading System for green projects that contribute to the reduction of greenhouse gases. Specifically, the funding program supports the development of innovative technologies and processes with low carbon emissions, carbon capture and use, innovative renewable energy generation and energy storage.

For these projects, a total grant of up to 10 billion EURO is offered until 2030 (European Commission).

In this sub-chapter, the sources of financing for the development of projects that contribute to the fulfillment of ESG factors in investments have been highlighted, these coming in the consolidation of the VUCA phenomenon, namely the realization of complex projects in both the public and private sectors, in a volatile market with unpredictable factors as a result of the globalization process.

The decisions taken at the managerial level will have to be well-founded according to the particularities of the development of these financing programs, with an emphasis on ESG factors and considering the aspects of the VUCA world in order to increase the efficiency of the activities carried out and attract the largest possible number of investors.

Results and discussions

The present research was carried out using empirical documentation from secondary sources of information, the emphasis being on the qualitative analysis of the analyzed information, followed by the interpretation of the authors of this paper.

ESG and VUCA phenomena were conceptualized in the context of a dynamic environment, constantly changing with the emphasis on the adaptability of organizations in the activity they carry out. The interdependencies between the two concepts strengthen our belief in the capacity for sustainable development by using them together, economic, social and governance factors being prioritized in the decisions adopted at managerial level. At the same time, in order to meet the objectives of sustainable development, it is necessary to increase decision-making transparency in order to effectively report the results of the measures applied both according to the legislative framework and for investors.

Regarding the public system and the private system in terms of funding sources, although a large part of the investments in green projects will look at the public sector, this is not enough to ensure a rapid transition to a sustainable future, as of a collaboration with the private business environment. Thus, companies from the private sector have an important decision-making and impacting role on the environment and the communities of which they are a part.

To streamline processes and meet environmental, social and governance factors in line with the VUCA world, there is a need for standardization of sustainability reporting with clear assessment elements. Establishing effective governance practices and auditing non-financial processes will help build trust and transparency.

Given that these two fields are still at the beginning, public and private actors are in a learning process in the field of sustainable financing, the process being supported by the directions established at the level of the European Commission.

Thus, for the development of sustainable projects through the mechanisms mentioned in the previous chapter, a holistic approach will be needed, of stability, tradability and proximity in order to attract non-reimbursable development funds as well as private investors.

The implications of the present research on the research field highlight the guidelines for the evolution of the interdependencies between the VUCA world and the ESG phenomenon as well as determining factors in their development in correlation with the specialized literature.

Conclusion

The concept of the ESG phenomenon highlights the directions of development according to the legislative framework within organizations for the adoption of sustainable decisions regarding economic, social and governance factors. It requires the adaptability of actors in relation to the challenges produced in the context of globalization in order to maintain an optimal position on the market in front of customers, competitors and investors.

Thus, this concept contributes to setting the directions for answering the questions of the volatile, uncertain, complex and ambiguous VUCA world. In the VUCA world, organizations must develop and adopt sustainable development strategies in an uncertain application environment as a result of the variety of change-determining factors (external environment, production lines, human resources, technological flows).

In conclusion, economic, social and governance factors can be developed taking into account the elements of uncertainty, volatility and complexity generated in the VUCA world, which can favor the creation of sustainable strategies taking into account the strengths and weaknesses of each element. Due to the increasing scarcity of natural resources and the increase in the degree of environmental degradation, sustainable investment projects are a necessity for long-term scaling within organizations, also contributing to their competitiveness.

References

Castro, C., Lopes, C. Digital Government and Sustainable Development. J Knowl Econ 13, 880–903 (2022). https://doi.org/10.1007/s13132-021-00749-2

Cousins, B. (2018). Design thinking: Organizational learning in VUCA environments. Academy of Strategic Management Journal, 17(2), 1-18.

European Climate Infrastructure and Environment Executive Agency, Retrieved January 15, 2023, from https://cinea.ec.europa.eu/programmes/innovation-fund_en

European Green deal - consilium. (n.d.). Retrieved January 12, 2023, from - https://www.fecioareihub.ro/2020/04/27/vuca-vs-vuca-best-practice-vs-best-thinking/

European Green deal - consilium. (n.d.). Retrieved January 15, 2023, from https://www.consilium.europa.eu/en/policies/green-deal/

Granturi.(n.d.).Retrieved January 15, 2023, from https://www.europarl.europa.eu/contracts-and-grants/ro/grants

Horizon Europe, European Comision, Retrieved January 09, 2023, from - https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-op

IFAC (2012). Investor Demand for Environmental, Social, and Governance Disclosures: Implications for Professional Accountants in Business. New York, International Federation of Accountants

Indyk, M., (2022), Are the Companies Prepared for Sustainability Reporting under the ED IFRS S1 and S2? Evidence from Poland, Audit Financiar, vol. XX, no. 4(168)/2022, pp. 641-654, DOI: 10.20869/AUDITF/2022/168/022

Investor demand for environmental, social, and governance disclosures (exexutive summary), Implications for Professional Accountants in Business, International Federation of Accountants ISSN 0007-6813, https://doi.org/10.1016/j.bushor.2014.01.001 .

Life. (2023, February 07). Retrieved January 15, 2023, from https://cinea.ec.europa.eu/programmes/life_en

MINCIU, M., Berar, F., & Dobrea, R. (2020). The Challenges of the VUCA World in the Development of Sustainable Investment Projects, „. Management and Economics Review, 6(2).

Nathan Bennett, G. James Lemoine, What a difference a word makes: Understanding threats to performance in a VUCA world, Business Horizons, Volume 57, Issue 3, 2014, pp. 311-317, Overview of sustainable finance, European Comission, Retrieved January 17, 2023. From https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en#what

Păduraru, A. (2020). „Noua economie" se bazează pe transparență. Revista Romana de Drept al Afacerilor, (4), 81-89.

Raport Creating Sustainable Futures Together, Sustainable Futures, Social Innovation Solutions, 2022.

Sinha, D., & Sinha, S., (2020). Managing in a VUCA World: Possibilities and Pitfalls. Journal of Technology Management for Growing Economies, 11(1), 17–21. https://doi.org/10.15415/jtmge.2020.111003

What Vuca really means for you. (2022, August 31). Retrieved January 08, 2023, from https://hbr.org/2014/01/what-vuca-really-means-for-you