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SUSTAINABILITY - FAD OR NECESSITY

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Abstract. The current development stage of the world economy is characterized by a series of transformations with a major impact on life on Earth. Today, we are benefiting from the advantages of the progress achieved so far, but we are also facing a number of problems caused by the limitation of natural resources, pollution, global warming etc., as well as many unknowns arising from the development of technology and research. For this reason, this whole development process will have to be carried out with more caution, less waste and with respect for all the measures adopted to protect the environment.
The whole approach involves a *descriptive and comparative analysis* of the current process of socio-economic development with *the aim of identifying, raising awareness and managing potential threats* to the coexistence of the biosphere and human civilisation. *The originality of the study* lies in the use of current information on the subject, obtained from *various sources*, such as competent bodies, the media and specialist literature. By drawing attention to the devastating effects that intensive and irresponsible development with a multitude of unknowns can have, the aim is to sound a serious alarm before it is too late. Terms such as responsibility, prudence, vigilance, sustainable development should not be missing from any management plan, both at company and macroeconomic level.

Keywords: *alarm, "Earth Overshoot Day", New Economy, performance, responsibility, sustainable economy.*

JEL code: *F63, G01, I00, O30*

INTRODUCTION

The global economy is currently experiencing numerous and profound changes, which require additional efforts from economic entities to adapt to new requirements and ensure the proposed level of performance. The accelerated pace imposed by the current stage of development, limited resources, and new technology are just a few of the aspects that the current economy is facing. Furthermore, if we add various crises (economic, financial, humanitarian etc.), armed conflicts, pollution etc., an overall picture of the New Economy emerges, which should be one of prosperity rather than concern. Moreover, we are witnessing the degradation of the environment, the intensification of extreme phenomena (fires, floods etc.) in the pursuit of greater performance and more.

In this context, international organizations, as well as various foundations, associations and non-governmental organizations have undertaken a series of actions to raise awareness of environmental issues and their sometimes catastrophic effects. In addition, a series of regulations have been adopted to protect the environment, and terms such as sustainability, green economy, sustainable economy, circular economy, social responsibility etc., are increasingly encountered in today's economic life. Unfortunately, we also encounter new terms such as "Overshoot Day," "World Overshoot Day," or "Earth Overshoot Day," which mark the moment when the population's demand exceeds the Earth's capacity to regenerate for that year.

Although there is an awareness that the Earth is suffering as a result of intensive exploitation, that resources are limited and efforts are being made to adopt measures that support sustainability in the current stage of global economic development, we still witness a series of economic and financial phenomena and activities that are contrary to the principles of a sustainable economy (deforestation, pollution, armed conflicts etc.). If we also consider the uncertainties surrounding the implementation

of new technology, then the adoption of immediate and significant measures to protect the environment should be a priority for everyone.

LITERATURE REVIEW

Economic and financial theory and practice gives a special place to the concept of performance at the microeconomic level, and extensive works and studies have been written on various aspects, whether economic and financial or ethical and cultural. [18]

This concept, although it has a variety of meanings and is used in many fields, is by no means easy to define.

According to the explanatory dictionary of the Romanian language, one of the meanings would be "special achievement in a field of activity".

While some authors consider performance to be "a state of competitiveness of the company, achieved through a level of effectiveness and efficiency that ensures its sustainable presence on the market"[16], others present it as "the ability of the company to make a profit". [19] Based on these concepts, it can be seen that economic and financial analysis "subordinates the study of the company's performance to its fundamental objective of maximising its market value" [18], and if we also take into account the fact that the main source of information is the Profit and Loss Statement, a component of the annual financial statements, we see that most approaches to the performance of the economic entity refer only to the financial aspect. Thus, the financial performance of an economic entity is reflected by its revenues, expenses and financial results. [1]

On the other hand, the criteria for assessing performance have changed over time. Thus, while in the 1960s the size of the company was taken into account, in the 1970s, accounting profitability, in the 1980s, liquidity, and in the 1990s, value creation, today performance is still assessed in terms of value creation, but subject to sustainable development. [17] As a result, the notion of performance has been expressed through a variety of expressions, such as accounting profit, economic profit, cash-flow, efficiency-effectiveness, newly created value, social responsibility. [9]

As far as the term sustainability is concerned, it is a characteristic of the New Economy, which, according to Wikipedia, "in the 21st century generally refers to the ability of the biosphere and human civilisation to co-exist" [23], and if we refer to economic and financial activity, it is "the ability to operate and produce without consuming the planet's resources, with a view to keeping them available for as long as possible". [12] A brief search on academic Google shows that this concept is also a concern for specialists in the field, and as a result a variety of studies and articles (more than 4,500,000) can be identified since the 1990s that have sustainability as their central theme. While some authors present the concept [11], others investigate the sustainability impact of a digital circular economy. [20]

MATERIALS AND METHODS

In order to capture certain defining aspects of the current stage of economic and social development, *non-participatory observation* was used and information provided by the relevant bodies, literature and media sources were used. By highlighting the harmful effects of intensive development, which is aimed solely at financial rather than global performance, an attempt is made to sound the alarm about the degradation of life on Earth, with *the aim of raising responsibility*.

RESULTS AND DISCUSSIONS

The New Economy must respect a series of principles that reflect both the existing situation, immediate needs and aspirations, and long-term ones, which include counteracting the negative effects accumulated in the process of existence so far: [10]

- The principle of human existence in a closed circle, at least until the conquest of outer space, which has the consequence that we cannot escape the negative effects we induce on the environment;
- The principle of human reintegration into nature, which means actively aligning our existence with the demands of nature, i.e. being in harmony with it;

- The principle of primum non nocere, i.e. first and foremost not to harm the environment, i.e. not to pollute or to pollute as little as possible;
- The principle of preserving and increasing biomass, biodiversity and bioproductivity;
- The principle of permanent resource security, which implies both the conservation and rational use of non-renewable resources and the achievement of a balance between the rate of exploitation of other resources and the rate of their regeneration, calling for recycling and the elimination of waste;
- The principle of economic, social and environmental efficiency, which also involves taking into account expenditure on restoring nature and protecting and developing environmental assets;
- Societal existence is interactive with the environment, and this two-way relationship requires humans to respond to environmental demands in order to ensure their continued existence;
- The transition from discretionary population growth to one based on the conscious responsibility of the male-female couple and the appropriate involvement of society;
- The principle of social equity implies the pursuit of the objective of reducing income disparities and equal access to environmental assets;
- Holding governments accountable for how they manage and enhance resources to secure the future of new generations.

Unfortunately, the struggle for supremacy, for the highest financial performance, for the possession of as many resources as possible does not take these into account and the result is the limitation of natural resources, pollution, armed conflicts, pandemics and a series of serious problems, to which we must add the unknowns of the very rapid development of artificial intelligence.

In this study, two main issues are highlighted:

- The current problems facing humanity as a result of intensive development and limited resources;
- The problems arising from the implementation of new technologies, especially artificial intelligence.

The problems of the current stage of economic development, that of our century, have also been addressed in other articles. [3-6] Unfortunately, many of them continue to exist and, what is more, new ones are emerging, which is why I will continue to point them out with the declared aim of raising awareness and increasing vigilance, and by sounding the alarm I am joining the other authors who address this issue of taking responsibility for life on earth, which can be achieved by adopting and implementing sustainable measures so as to facilitate a balance between the social environment and the environment. Man wants continuous development, but must bear in mind that the Earth has limited resources, and their intensive and chaotic exploitation could lead to serious or even very serious problems for life on Earth itself.

One of the ”legacy” problems is **global warming**, but today we are unfortunately witnessing a series of negative records. A first consequence of this phenomenon is that ***glaciers are melting at a record rate***. According to the World Meteorological Organisation, as well as several other bodies and media sources: [15]

- Antarctic ice has reached its lowest level ever recorded and melting of some glaciers in Europe has broken records. For example, the European Alps saw record glacier melt due to a combination of low winter snowfall, the arrival of Saharan dust in March 2022 and heat waves between May and early September, and Swiss glaciers lost 6% of their ice volume between 2021 and 2022, compared to a third between 2001 and 2022. For the first time, no snow cover survived the summer melt season, even in the highest places, so there was no accumulation of fresh ice. The Morteratsch Glacier in Switzerland, the third largest glacier east of the Alps, has shrunk by about three kilometres in length, and its width has decreased by about 200 metres; [22]

- The long-term observed reference glaciers experienced an average thickness change of more than -1.3 metres between October 2021 and October 2022, a much larger loss than the average of the last ten years, and the cumulative glacier thickness loss after 1970 amounts to almost 30 metres.

According to experts, the effects of melting glaciers on humans, animals and life in general are real problems and consist of rising sea levels, impact on climate, extinction of species, reduction of fresh water, devastating floods, lack of electricity, recontamination of the environment, increased global warming, famine and severe economic consequences, etc. [7] As a result, ***the rate of sea level rise*** in 2023 has doubled compared to 1993. [15] There have also been a number of ***floods*** in both 2022 and 2023. For example, in Pakistan, where there are more than 7,000 glaciers - more than any other region or country in the world, excluding the poles - at least 16 glacial lake floods caused by heat waves occurred in 2022, compared to an average of five or six per year, and according to the Pakistani government, the 33 glacial lakes on its territory are at risk of bursting and could release millions of cubic metres of water in just a few hours. [22]

Ocean temperatures also reached record levels in 2023, and fires have burned huge areas in several places around the globe (e.g. Hawaii, France, Spain, Portugal, Greece, Italy, USA etc.).

All these changes have alerted the relevant organisations (United Nations, European Commission etc.), various foundations and non-governmental organisations, as well as the governments of many countries, which are looking for solutions to prevent or mitigate the negative effects of all these problems, which are constantly occurring, and even tending to increase. This encourages sustainability, recycling, the use of clean energy (wind power, solar panels, electric cars etc.), the reduction of waste etc. But even in the circular economy we are faced with a number of unknowns. For example, we use solar panels, electric cars etc., but it is not yet clear how they will be recycled without harming the environment.

Having listed just some of the negative consequences of intensive economic development based on profit, I think the answer is clear to everyone, namely that today's economy must develop in full harmony with the environment, which can only be achieved by respecting the principles of a circular, sustainable economy, where *sustainability is the key term*. But we will have to pay close attention to a number of aspects in terms of implementing policies on social responsibility, recycling etc. specific to sustainable development within companies. Here I am referring to the fact that if a company produces and markets products that are not good for health (which has been proven and supported by specialists), can we still talk about sustainability or sustainable economy, in the sense that the company uses biodegradable packaging, is involved in social life through various activities to support sport, clean air etc., but still produces food or drinks that are harmful to health?!?

Another aspect we are looking at in this study is *the development of research and technology* and, in particular, *artificial intelligence*. Nowadays, we are getting more and more strange information. For example: fake eggs have been created in China [21]; a piece of meat has been made in Israel using 3D printers [24]; researchers have grown an entire model of a human embryo in a laboratory without the use of sperm or ovule [13] etc. If we add to this information about extraterrestrial life, but also information that has an immediate impact on life on Earth now in the 21st century, namely the explosive development of artificial intelligence, we get a picture of the framework in which the New Economy is developing. Some may ask: what does sustainability have to do with research and development of artificial intelligence? Well, it kind of does, because the current stage of development of the economy is based on both, and their impact on the environment and even on life is not yet 100% known.

Even though the term *artificial intelligence* was introduced in 1956, it has become the topic of the day today due to increased data volume, advanced algorithms and improvements in computer power and storage space and features a range of technologies such as: speech recognition, language technology and natural language processing, virtual assistants, process automation, machine learning platform, biometric recognition, improved management and decision making. [2] All of these make artificial intelligence used in just about every area of business, and the benefits of using it are remarkable. If we start from Elon Musk's statement that "*artificial intelligence has the potential to*

destroy humanity. It is one of the things that will dramatically affect our future", or "*artificial intelligence is probably more dangerous than the flawed design of airplanes*" [14], or "*artificial intelligence is more dangerous than nuclear weapons*" [8], then vigilance is the key word. A simple glance at the internet can identify a number of dangers accompanying the new technology, among which Wikipedia identifies two very dangerous ones: existential risk and intelligence explosion. Given the hidden dangers of artificial intelligence, which has begun to reach closer and closer to the human safety boundary, officials in the European Parliament and beyond have decided that some regulations must be adopted in its use.

CONCLUSIONS

Global regulatory developments in recent years are based on a triple bottom line of economic, social and environmental performance. The old problems inherited from the intensive exploitation of limited resources (pollution, global warming, viruses etc.) and the new ones arising from the galloping development of research and digital technology call for greater responsibility and vigilance, so that the principles of the New Economy, which ultimately aim at the well-being of life in harmony with the environment, can be achieved.

If we add to all these aspects the current armed conflicts, we can conclude that man's most dangerous enemy is himself and life on Earth is conditional on the application of sound development principles, taking into account the limited resources, the earth's capacity to regenerate them and ***sustainability is a necessity*** in the current stage of socio-economic development.

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