Romania's sustainable development prospects in the post-pandemic period

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Abstract. *Being in a permanent economic quest, it is essential for Romania to identify the relevant elements of the international context and, based on them, to develop an inclusive economic model, viable from a digital point of view, capable of offering decent economic perspectives to its citizens by creating new jobs and increasing the level of well-being, while protecting the environment. The first part of the research provides an X-ray of the Romanian economy from a macroeconomic point of view. Next, beside the quantitative study, an artificial neural network was built to evaluate the behavioral implications of the variables related to sustainability, namely the degree of digital inclusion, the eco-innovation index and the degree of use of resources in the evolution of the economic-financial establishment at the level Romania, for the period 2014-2022. Our study attempts for a new approach, joining the analyzes related to Romania's sustainable development prospects in the post-pandemic period. New perspectives regarding this aspect can be revealed through the quantitative approach of the sub-components of the indicators in relation to the dynamic capacities of Romanian organizations.*
Keywords*: Sustainability, Degree of digitization, Eco-Innovation, digital inclusion index, degree of use of resources, economic-financial stability, artificial neural network.*
JEL classification*: Q56, E00, C49*

1. Introduction

The global economy has been radically affected in the last years by events such as COVID-19 pandemic or Ukrainian war, which has driven a major imbalance in the labor market and economic sustainability. The views on the concept of "sustainability" underlines the need for an appropriate framework for sustainable development that considers both external and internal factors associated with dynamic changes from the economic, social, etc. perspectives. Therefore, sustainability is a concept that includes a series of strategies and measures able to guarantee the minimum necessary stability at the level of economic, social and ecological systems. The continuous quest for efficiency in the use of resources generated the development of many innovations in the economic setting. It determined the growth of digitization, as a development tool.

One of the most relevant indicators of the degree of digitization is the Digital Inclusion index that characterizes activities related to the access to information and communication technologies (such as internet access, technical and content assistance, digital devices, applications and software). In an

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everlasting economic quest, it is essential for Romania to offer decent economic perspectives to its citizens by identifying the relevant elements of the international context and developing an inclusive economic model able to create new jobs and increasing the level of well-being, while protecting the environment.

2. Literature review

The economic system is created through the processes and infrastructure related to human activities (Mihai et al., 2021). Thus, while the economic component, together with the society, function as interconnected subsystems of the biosphere, sustainability aims to ensure a high degree of durability (Mihai et al., 2021). Tackling "sustainability" is an increasingly complex endeavor due to the need to stabilize the sustainable development framework. Abdulhafedh (2021) emphasizes three components reflecting the sustainability approach: economic growth, socio-economic responsibility and environmental protection strategies. Sustainable development is the foundation of sustainability, which is structurally/relationally described by Zhivkova (2022) through three nested links, the three-legged stool and three overlapping circles. From the perspective of the three nested links, in Lehtonen's view, sustainability represents the summation of dual relationships between three components (Lehtonen, 2004): the link between the economy and the environment; the link between the environmental composition and the social composition; the link between economic and social composition.

The three-legged stool approach (found in the Brundtland Commission Report), depicts the fact that sustainability is built around three components/pillars (Brundtland, 1987): the economic pillar, the equity pillar and the environmental pillar. It is worth mentioning the necessary contribution balance of each pillar to determine the degree of sustainability, a fact imposed by the impossibility of a forced choice between the three mentioned pillars (Zhivkova, 2022). In the third approach, sustainability is presented as the result of the nested connection of the constituent components (Herath and Rathnayake, 2019): the environmental component, the social component and the economic component. These elements are presented as a whole ecosystem where each element depends on the other, considering that nature provides all the necessary resources and each of these components is indispensable (Herath and Rathnayake, 2019). The economic system is created through the processes and infrastructure related to human activities (Mihai et al., 2021). Thus, while the economic component, together with the society, function as interconnected subsystems of the biosphere, the sustainability resembles a high degree of durability (Mihai et al., 2021).

The financial sector leads the process of sustainable economic growth in CEE countries. Foreign direct investments together with constant capital formation determine economic growth, various studies showing that these elements have been the basis for the sustainable economic growth of CEE countries (Bătrâncea et al., 2020). Sustainable development has been the most analyzed and debated topic in the last three decades. The global manifestation of various financial, economic and social crises and the aggravation of the climate change and global warming effects stimulated the establishment and undertaking of Sustainable Development Goals (SDGs). They are included in the European Union 2030 Agenda, as specific elements for the transition to a sustainable economy.

Monitoring and evaluating the achievement of the SDG (Sustainable Development Goals) is an important element in the process of updating the policies regarding the transition to a green and sustainable economy in the European Union. Thus, the progress of their fulfillment is a constant concern for technocrats and researchers (Frone et al., 2020). In this perspective, our research paper aims for a methodological analysis and identification of relevant elements for increasing the level of well-being in Romania, while protecting the environment.

The concept of "sustainability" has become an important element for sustainable development, considering the dynamics of economic, social, etc. factors. Thus, change and sustainability represent important concepts for researchers and practitioners, reflected in the way organizations and systems adapt to the increasingly diverse requirements of the current market.

With the realization of the benefits of goal-oriented management, project management has become a widely used approach in organizational efforts to meet the needs of all stakeholders. The use of this tool has led to the emergence of specific competencies at different stages of development within an organization. In parallel with this approach, researchers have highlighted the role of dynamic

capabilities, able to ensure the adaptation of organizations to contexts that are constantly changing. Also, it must be considered that organizations visualize and analyze sustainability issues being focused on prioritizing the achievement of the highest possible level of profitability.

Sustainable development is dependent on sectoral policies. Thus, certain historical decisions specific to certain sectoral policies can represent threats to sustainable development. For example, historical decisions regarding technology and infrastructure, respectively land use, etc. can be the basis of developments against sustainable development. Moreover, companies and individuals act on motivations that trigger production and consumption contrary to sustainable development, unaware of the chain effects of their actions or of the alternatives available. The correction of inadvertencies is hampered by the existence of various institutional obstacles (Platon and Turdeanu, 2006). Thus, Romania can ensure sustainable development only by involving all interested parties and establishing concrete measures to improve the ODD indicator (Firoiu et al., 2019).

Various studies have analyzed the relationships between sustainable business models and the constant long-term development of the economy. Abdelkafi and Täuscher (2016) proposed sustainable business models that interconnected the decision-making factor, the company (business factor), the environmental factor and the customers. The proposed models reflect the company's ability to create value for customers as well as for the natural environment. The sustainable approach to the environment is reflected through three components specific to the use of resources: renewable resources, non-renewable resources, the degree of pollution and reduction of waste. Also, the sustainability of the environment is also analyzed from a social point of view, by offering some advantages to customers (Abdelkafi and Täuscher, 2016).

Approaching the concept of "sustainability" is increasingly complex due to the need to stabilize the sustainable development framework. Abdulhafedh (2021) emphasize three components reflecting the sustainability approach: economic growth, socio-economic responsibility and environmental protection strategies. Sustainable development is the foundation of sustainability, which is structurally/relationally described by Zhivkova (2022) through three nested links, the three-legged stool and three overlapping circles.

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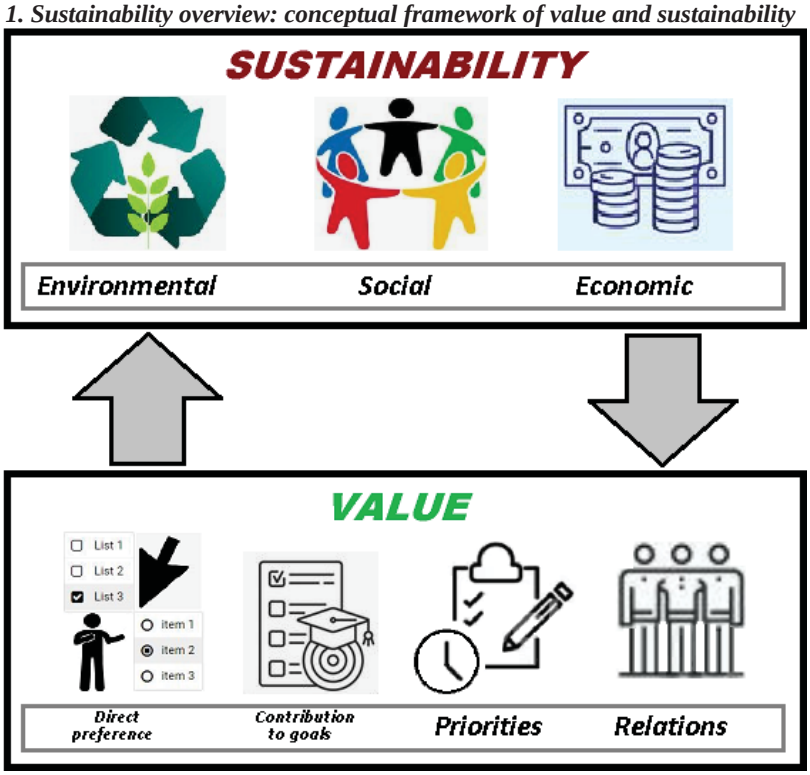
In the third approach, sustainability is presented as the result of the nested connection of the constituent components (Herath and Rathnayake, 2019): the environmental component, the social component and the economic component. These elements are presented as a whole ecosystem where each element depends on the other, considering that nature provides all the necessary resources and each of these components is indispensable (Herath and Rathnayake, 2019).

Zuluaga, Karney and Saxe (2021) presented a conceptual framework of value and sustainability, emphasizing the permanent and mutual relationship between the value created and sustainability (Figure 1).

Figure 1. Sustainability overview: conceptual framework of value and sustainability



Source: Adapted from Zuluaga, Karney and Saxe (2021).

On the other hand, Foxon and his collaborators believed that the "economy of complexity" is the best research program that deems a series of specific thought processes and approaches (Foxon et al., 2012). Beinhocker (2007) believes that this approach to economics is achieved by considering at least five elements: dynamism, agents, networks, the emergence and evolution of behaviours.

Table 1. The five elements addressed in economics

	APPROACH
Dynamic	economies are open, dynamic systems, far from equilibrium
Agents	are composed of heterogeneous agents, lacking perfect foresight, but capable of learning and adapting over time
Networks	Agents interact through various networks
The emergence	macro patterns emerge from micro behaviors and interactions
Evolution	The evolutionary processes create novelty and increasing order and complexity over time

Source: Adapted from Beinhocker, 2007.

The economy is perceived by researchers as a component of the environment, based on stable interactions between people and the environment, in a way that the needs of both categories are satisfied (Mihai et al., 2021).

Romania has set several objectives within the national sustainable development strategy, in areas such as industry, innovation and infrastructure. Thus, Rădoiu (2020) highlights the fact that our country can become competitive at the European / international level only by developing a quality, reliable infrastructure, and a sustainable industry, respectively by encouraging innovation.

Romania is the country with some of the worst results in Europe, as shown in the Scoreboard (2019). In the period 2011-2019, Romania is in last place in the group of modest innovators, along with Bulgaria. Romania's innovation performance is below the EU level between 2011 and 2015, but started to increase after 2015. This increase was mainly determined by more efficient use of resources through the adoption of clean and ecological technologies. However, the innovation performance of Romania is

far below the European average, the country being positioned in the category of modest innovators in the European Union (Rădoiu, 2020).

3. Romania's post-pandemic situation at the macroeconomic level

Currently, the economic systems have been put to the test both by the consequences of the COVID 19 pandemic and by a series of recent military confrontations. These revealed the structural vulnerabilities of the economy, including persistent poverty and disparities in economic opportunity between regions or between urban and rural areas, structural rigidities in good markets and labor force, fiscal policy weaknesses and significant institutional constraints that prevent efficient use of resources (World Bank, 202).

According to the European Commission Report, in 2022, Romania experienced an economic growth of 4.7%, based on strong private consumption and robust investments (European Commission, 2023). The growth was supported by a 7.5 percent increase in private consumption compared to 2021, due to the gradual lifting of COVID-19 restrictions, higher wages and lower unemployment (World Bank, 2022).

The evolution of inflation led the National Bank of Romania to take drastic measures, gradually increasing the monetary policy rate up to 6.25% at the beginning of the last quarter of 2022. The negative consequences of rising prices for food and energy have been disproportionately reflected on poor and vulnerable households, although the government has engaged in capping gas and electricity prices until the end of August 2023 (World Bank, 2022). According to data provided by the World Bank, investments started to recover in 2022, registering a 2.4 percent increase compared to 2021, stimulated by new construction works. At the resource level, in 2022, growth was led by the Information and Communications Technology sector with a growth of 24.1% compared to 2021, benefiting from the adoption of digital technologies by businesses (World Bank, 2022).

Macroeconomic indicators indicate a fairly resilient Romanian economy in the first quarter of 2023. The turnover from retail sales shows an upward trend, and industrial production enjoys a timid growth (European Commission, 2023). Monetary policy is set to remain tight, with a 7% monetary policy rate, impacting the flow of credit to the economy and investments (European Commission, 2023). The recovery and resilience plan, however, foresees that planned investments and inflows of other EU funds more than compensate for the impact of strict credit conditions (European Commission, 2023).

According to the World Bank, considering Romania's limited fiscal space, for a sustainable recovery of our economy is imperative the absorption of all the funds available in the multiannual financial framework of the European Union and the Next Generation European Union (World Bank, 2022).

4. Research methodology

This paper intends to analyze the role of digitization in the relationship between Innovation and the evolution of Romania's economic behavior. Our research relies on the Eco-innovation index, which highlights the performance of socio-economic and environmental activities. It characterizes the response of the economic behavior of the European Union member states in relation to the actual trends.

From a structural point of view, Park et al. (2017) reveal that the Eco-innovation is constituted by the aggregation of five components. The first component is the resource utilization performance, while the second component is rendered through the aggregated socio-economic parameters. The other three components associated with Eco-innovation are inputs related to Eco-innovation, outputs of Eco-innovation, as well as Eco-innovation activities (Park et al., 2017).

On the other hand, the Digital Economy and Society Index (DESI) is another element analyzed in this paper, as an indicator of the digital performance and level of progress of the EU countries (European Commission, 2023).

Finally, the third integral component of our study is the percentage evolution of the GDP at the level of Romania. The data for our study were extracted from the statistical website of the European Commission, for the period 2014-2022 **(**Eurostat, 2023; World Bank).

The purpose of the study is to check whether the evolution with an infinitesimal value of the Eco-Innovation Index, the Digital Economy and Society Index (DESI) significantly determine the GDP trend. To achieve the goal of the present work, we used the multinomial logistic model, expressed mathematically in the following way (Duşa et al., 2015):

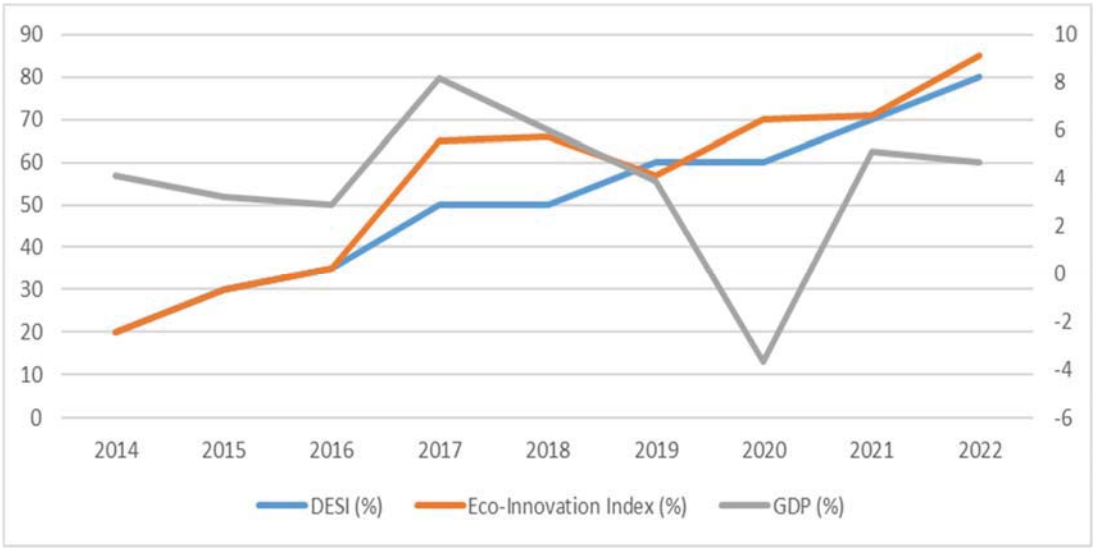
$$P(VD = 1/VI) = \frac{e^{(\alpha+\beta \cdot VI)}}{1+e^{(\alpha+\beta \cdot VI)}} \quad (1)$$

where:
$P(VD = 1/VI)$is given by the probability that GDP will have a significant evolution when the parameters related to DESI and the Eco-innovation Index show positive trends.

5. Results

The analysis of the three indicators of our study, for the period 2014-2022, highlighted the fact that GDP decreased during the COVID-19 pandemic. At the same time, the harsh restrictions imposed in that period determined an increase in the DESI parameters and the Eco-innovation Index (see Figure 2).

Figure 2. Evolution of Romanian indicators: DESI, Eco-innovation Index and GDP for the period of 2014-2022



Source: EUROSTAT, World Bank.

The equation (2) that resulted from data processing is:

$$P(VD = 1/VI) = \frac{e^{0.0001V_{DESI}+5.545V_{Innov}}}{1+e^{0.0001V_{DESI}+5.545V_{Innov}}} \quad (2)$$

where:
V_{DESI}: the variable associated to DESI
V_{Innov}: the variable associated with the Eco-Innovation Index.

The Chi-squared ($\chi 2$) test value of our model is 5.45, which is greater than the Chi-squared tabular value ($\chi 2$tabular = 2.088). The result shows us that technology and innovation can make a real contribution to the evolution of Romania's GDP. Thus, the evolution with an infinitesimal value of the Eco-Innovation Index and the DESI (Digital Economy and Society Index) determines a significant increase in GDP.

6. Conclusions

"Sustainable development" is a concept that covers multiple realities, which justifies the diversity of interpretations in the specialized literature. The concept is in a dynamic evolution, manifested at the international level through the permanent development of methods and techniques that provide an equilibrium between economic, social and environmental aspects.

Sustainable development takes on special importance in the context of growing awareness of resource depletion. It is a challenge and a priority for humanity, while considering various local and global perspectives. While human needs are dynamic, infinite and inexhaustible, the natural resources needed to satisfy them are finite and exhaustible. The major challenge at the global level is to reach a level of sustainable development consistent with the needs and desires of both the present and future reality. This can only be achieved through an integrated management of economic, social and environmental aspects. On the other hand, sustainability can be achieved based on a concentrated effort and well-documented strategies (Birău, 2017).

Aligning with the global efforts, Romania is making sustained efforts to implement various strategies aiming to modernize society in a sustainable way. Rădoiu (2020) considers that from an economic point of view, economic growth should not be considered an end in itself, because the economy must work for people and for the planet. However, establishing a balanced set of sustainable development indicators represents a framework for periodic monitoring of progress in achieving strategic objectives.

Sustainable development perspectives are realized at the national level by analyzing and proposing sustainable development strategies over a long period of time. Among the objectives related to sustainable and sustainable development strategies is the formula objective: "Building resilient infrastructure, promoting sustainable industrialization and encouraging innovation" (Department for Sustainable Development, 2018). The way to achieve this objective is to make massive investments in technology and research, which are necessary for Romania's innovative development.

Also, in the process of sustainable development of Romania, it is necessary to identify and implement complementary, yet exhaustive, strategies at the following levels: economic (economic growth and stability), social (patrimony protection, accountability in social actions, standard of living, social communication) and ecological (natural resources, reducing pollution biodiversity).

A few elements are necessary to make the sustainable development strategies workable: the priorities to be correctly and realistically defined; to focus on generating effective long-term results; to achieve coherence between the different existing planning frameworks; to impose a much greater involvement in the fulfillment of the economic agents' objectives. Moreover, for their involvement in the development of Romania, investors and financial institutions from European Union countries need a frame of reference, an establishment of the direction in which our country wants to go.

The evolution with an infinitesimal value of the Eco-Innovation Index and the Digital Economy and Society Index (DESI) can significantly increase the Romanian GDP, through technology and innovation. Also, the Romanian economy can be sustainably transformed by using the amounts available through the PNRR and in the 2021-2027 financial framework. Thus, Romania can benefit from 13,566 million euros for the non-refundable financial assistance component and approximately 15,000 million euros for the loan component. (Ministry of Finance, 2023). The key elements for Romania's transition to sustainability are the UN Sustainable Development Goals (SDGs). Thus, Romania must have a proactive attitude in terms of establishing and reaching SDGs, rallying to the global strategy of the EU that guides the actions of the EU member states (ODD, 2019).

Sustainable development and modern, efficient and equitable national economies can be achieved only by ensuring ecological production and consumption models. This can be possible only through the adoption by all countries of the SDGs and of investments in skills, innovation and emerging technologies (Frone and Frone, 2020).

The long-term sustainability of public finances is also considered while assessing stability and convergence programmes. The size and age structure of Europe's population will undergo dramatic demographic alterations in the coming decades, with the aged population generating major economic, budgetary and social challenges. The European Commission has already highlighted that public debt will rise sharply in the coming decades if EU governments continue to implement their current policies.

Thus, fiscal consolidation and general economic reforms are needed to meet the aging challenge. Sustainable budgetary adjustment will thus greatly contribute to improving fiscal sustainability (Petrariu et al., 2020).

At the level of Romania, the regional development policy encourages the stimulation of a balanced growth of the territory. Romania's regional and rural growth by reducing the existent imbalance between regions and the possibility of its emergence is, however, a short-term process in the context of sustainable development. The specificity of Romanian agriculture (predominantly subsistence agriculture), its inadequate structure and the limited possibilities of competitive growth require increased long-term attention to the social sector.

For the public administration in Romania, sustainable development implies the creation and implementation of public policies that satisfy the dynamics of society's needs and imply the rational use of resources. Therefore, sustainable development in public administration aims at the efficient use of resources, necessary to secure the chances of future generations. It pursues optimization of the social system as a whole, focusing on the public interest and ensuring long-term quality public services for citizens.

In practice, the public administration in Romania must also consider the systemic risk related to the shortage of natural resources. The unequal distribution of natural resources at the global level is a reality, so it's fundamentally necessary the sustainable development of public administration as an organism that can lead to increased efficiency and effectiveness in satisfying public interests (Birău, 2017)

Sustainability reflects the symbiosis between the natural environment and the medium- and long-term efficient use of natural resources, based on three fundamental pillars of sustainability: economic, social and environmental. The establishment and implementation of reforms at the level of local and central public administration will contribute to overcoming the boundaries of abstract conceptualizations, for the benefit of future generations.

References

Abdelkafi, N., Täuscher, K. (2016). Business Models for Sustainability from a System Dynamics Perspective. Organization & Environment, 29(1), 74–96. https://doi.org/10.1177/1086026615592930

Abdulhafedh, A. (2021). The Analysis of a Corporate Sustainability. Journal of City and Development, 3(1), 6–11. https://doi.org/10.12691/jcd-3-1-2

Banca Mondială (2022) Evoluţiile economice recente. https://www.worldbank.org/ro/country/romania/overview#3

Beinhocker, E. D. (2007). The Origin of Wealth: Evolution, Complexity, and the Radical Remaking of Economics. Random House.

Bătrâncea, I., Mozi, R. M., Gãban, L., Gheorghe, F., Tulai, H., Bircea, I., Rus, M. (2020). An Empirical Investigation on Determinants of Sustainable Economic Growth. Lessons from Central and Eastern European Countries. Journal of Risk and Financial Management, 13(7), 146. https://doi.org/10.3390/jrfm13070146

Birău, R. (2017) Conceptual approaches on sustainable development in public administration in Romania. The Journal Contemporary Economy. Volume 2, Issue 4/2017.

Brundtland, G.H. (1987) Our Common Future: Report of the World Commission on Environment and Development. Geneva, UN-Dokument A/42/427.http://www.un-documents.net/ocf-ov.htm

Comisia Europeană (2023) European Economic Forecast.Institutional Paper 200 May 2023, ISSN: 2443-8014. pp.:136-147. https://economy-finance.ec.europa.eu/system/files/2023-05/ip200_en_1.pdf

Departamentul pentru dezvoltare durabilă (2018) Strategia națională pentru dezvoltarea durabilă a României 2030. ISBN: 978-606-748-261-4. Editura Paideia. Bucuresti

Dumitru, C.G., Sandru, A.M. (2015) Sustainable Strategic Directions of Regional Development In Romania In The Context Of European Integration. CES Working Papers – Volume VII, Issue 2A. pp. 452-463

Duşa, A., Oancea, B., Caragea, N., Alexandru, C., Jula, N. M., Dobre, A. M. (2015). R cu aplicaţii în statistică. Editura Universităţii din Bucureşti.

Eurostat (2023) Baza de date statistice aferente Statelor Membre UE. https://digital-agenda-data.eu/

Firoiu, D., Ionescu, G. H., Băndoi, A., Florea, N. M., Jianu, E. (2019). Achieving Sustainable Development Goals (SDG): Implementation of the 2030 agenda in Romania. Sustainability, 11(7), 2156. https://doi.org/10.3390/su11072156

Foxon, T. J., Köhler, J., Michie, J., Oughton, C. (2012). Towards a new complexity economics for sustainability. Cambridge Journal of Economics, 37(1), 187–208. https://doi.org/10.1093/cje/bes057

Frone, S., Platon, V., Constantinescu, A. (2020). Links And Synergies of Sustainable Development Goals, Annals - Economy Series, Constantin Brancusi University, Faculty of Economics, vol. 5, pages 53-61, October.

Frone, F.D., Frone, S. (2020) Issues and Trends of Progress Towards Sustainable Development Goals in Romania. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 20, Issue 2, 2020. PRINT ISSN 2284-7995, E-ISSN 2285-3952

Herath H.M., Rathnayake R.M. (2019) A Critical Approach towards Sustainable Development Models - A Review. International Journal of Agriculture Innovations and Research Volume 7, Issue 4, ISSN (Online) 2319-1473, 446-454. https://journals.indexcopernicus.com/api/file/viewByFileId/540395.pdf

Lehtonen, M. (2004). The environmental–social interface of sustainable development: capabilities, social capital, institutions. Ecological Economics, 49(2), 199–214. https://doi.org/10.1016/j.ecolecon.2004.03.019

Mihai, F., Aleca, O., Gogu, E., Dobrin, C. Gheorghe, M. (2021). The Challenges of the Green Economy in Romania. Scientific Literature Review. Sustainability, 13(23), 13113. https://doi.org/10.3390/su132313113

Ministerul Finantelor (2023). Raport privind situaţia macroeconomică pe anul 2024 şi proiecţia acesteia pe anii 2025-2027. https://www.cdep.ro/pdfs/buget/2024/raport/anexe/Raport%20buget%202024.pdf

ODD, Sustainable Development Goals | United Nations Development Programme; https://commission.europa.eu/publications/sustainable-europe-2030_en)

Park, M.S., Bleischwitz, R., Han, K., Jang, E-K. and Joo, J. 2017. Eco-Innovation Indices as Tools for Measuring Eco-Innovation. Sustainability. 9. doi:10.3390/su9122206.

Paul, J., Rosado-Serrano, A. (2019). Gradual Internationalization vs Born-Global/International new venture models. International Marketing Review, 36(6), 830–858. https://doi.org/10.1108/imr-10-2018-0280

Platon, V., Turdeanu, A. (2006) Romanian Journal of Economics, vol 22/2006. The Sustainable Development in the EU and Romania: Comparative Analysis, https://www.revecon.ro/articles/2006-2/2006-2-9.pdf.

Petrariu, I., Vîlcu, L. C., Lolea, I. C., Vladu, L. (2020). Fiscal sustainability in Romania. DOAJ (DOAJ: Directory of Open Access Journals). https://doaj.org/article/85a8937429d34a5e95d4aa820da5ff79

Radoiu, Alina. (2020). Romania's Challenges and Perspectives in Achieving Sustainable Development Goals. International conference KNOWLEDGE-BASED ORGANIZATION. 26. 251-256. 10.2478/kbo-2020-0040.

Zhivkova, S. (2022). Sustainability in the Companies Practices. European Journal of Marketing and Economics, 5(1), 44–56. https://doi.org/10.26417/169cbl93

Zuluaga, S., Karney, B. W. and Saxe, S. (2021). The concept of value in sustainable infrastructure systems: a literature review. Environmental Research: Infrastructure and Sustainability, 1(2), 022001. https://doi.org/10.1088/2634-4505/ac0f32

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