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ENVIRONMENTAL, SOCIAL AND GOVERNANCE RISKS – NEW CHALLENGES FOR THE BANKING BUSINESS SUSTAINABILITY

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Abstract

The present paper highlights the need to adopt sustainability strategies in the Romanian banking sector, from the perspective of the importance of the role of financial intermediary that commercial banks have, also reflecting the positive impact of these strategies on financial performance. The empirical study involved the use of linear regressions and processing by a program specialized in statistics and data science (Stata), and emphasizes the impact of environmental, social and governance (ESG) factors on Romanian banks and the opportunity to implement them in their own risk management strategies. For this purpose, were considered independent variables, at the microeconomic level: return on assets, the leverage multiplier, the credit-deposit ratio, the number of members of the management body, and at the macroeconomic level: the unemployment rate, the inflation rate and the growth rate of the Gross Domestic Product. The dependent variable used was the dummy variable called ESG. The results of our research show that, as the return on assets or the leverage multiplier increases, the probability that the bank implements a risk management strategy associated with environmental, social and governance factors decreases, and the number of members of the management body positively impacts the decision to get involved in social responsibility activities. Through this research was assessed the opportunity to integrate the risks associated with sustainable development within the strategies of development and risk management at the level of financial intermediaries and the importance of standardizing sustainable practices throughout the entire banking system in Romania.

Keywords: sustainability; environmental, social and governance risks (ESG); commercial banks; strategy; risk management

JEL Classification: G21, Q56

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Introduction

In a rapidly expanding world, with a focus on obtaining short-term profits, demographic changes, migration, globalization, digitalization, have emerged side effects, with a significant impact on the economy and society. Severe climate changes, environmental pollution, reduction or loss of biological diversity require long-term strategic guidance and coordination. Without consistent reflection and addressing the risk component, social, economic and environmental vulnerabilities will affect sustainability, both at the company level and at the systemic level.

In the context of these major changes, is raised with acuity the problem of sustainability (sustainable development), defined by qualitative anthropic activities, carried out without exhausting the available resources and without destroying the environment, supporting the possibilities of satisfying the needs of the future generations, by establishing an optimal balance between economic growth and environmental protection, with the identification of alternative resources.

Social and environmental sustainability is one of the most significant trends in the financial markets over the last decade. Integrating sustainability criteria involves designing and developing a new business model for each company, including banks. In addition to the desired financial gains, consideration must be given to diversifying the ways to meet the needs of consumers, while exploring the existing alternatives and meeting the demands of sustainability. The implementation of a business model adapted to the sustainability requirements entails additional financial and human costs (creation of specialized departments, the inclusion of new positions connected to sustainable development in the organization's governance structure). This approach involves, in most cases, radical changes in the definition of development and financing strategies, the risk management framework and corporate governance.

The research aims to address the issues of Environmental, Social and Governance (ESG) risks, due to their significant impact, their novelty, as well as their long-term importance for the financial-banking system, for the economy and society.

We selected banks for the analysis of risk issues, as risks are one of the most important pillars of banking activity, and banks are the most important financing channel for the economy, both at the European level and at the Romanian level. Identifying, evaluating, monitoring, reporting, adequate risk management, at the level of the three pillars, banking system - banking organization - banks' customers, brings significant value for the economy and for the society as a whole.

The financial crisis of 2008 highlighted the increase of certain new risks, that were not properly monitored and managed. The subsequent course allowed the authorities to develop a new governance framework for the financial-banking system. Technological changes, digitalization, changes in the regulatory framework have significantly impacted the governance framework of banking organizations.

Better Environmental, Social and Governance (ESG) risk management can implicitly lead to better credit risk management, one of the prominent risks that banking practice emphasizes. Correlating the three levels, banking system - banking organization - banks' customers, the impact of ESG risks is also reflected on financial stability.

From this perspective, in order to create an adequate environment for implementing the sustainability principles and financing sustainable development projects, but also for ensuring financial stability, the role of central banks, of the financial supervisory authorities is particularly important. These should contribute to the strategic alignment of good practices,

to the creation of a unitary international framework, to attract investors in the financing/financial support of sustainable projects, of the new green economy, but in the proper risk management conditions.

Banking organizations will also need to integrate environmental, social or governance risks and opportunities into their business, to inform, even educate clients, including through the new categories of risks that may affect their business and ability to repay. The importance of the activities of the credit institutions in the process regarding the management of the risks' sustainability is relevant by their quality as financier of the economic entities and manager of their own risks and of the credited clients. In his book, Jeucken (2001) states that banks influence the economy both quantitatively - through the contribution to economic development and qualitatively - through the nature of economic development.

As the financial industry consolidates and diversifies, the complex financial organizations offer a range of services and products intended exclusively for the sustainable development process, adapting their business strategies and lending policies to the needs of supporting the environment and civil society, but it is noticeable, further, a general interest and a low rate of adaptability and integration of sustainable development in the banking sector.

The issue-handling of this article begins with the literature review section where are included the most important studies, researches, which have as their subject matter addressed in the article. It continues with the second section where aspects of the research methodology are presented.

The third section reflects the results of the research, based on the developed model, which shows to what extent the variables considered can impact on the decision to adopt an ESG strategy. We have included in the discussion section other reflections that can add value to current research and future research.

The conclusions section summarizes the ESG risk issues and answers the fundamental question of the article, also reflected in its title. In the context of the results of the empirical study, the gradual approach of ESG risks may present opportunities for the Romanian banking system, implicitly by taking over good practices in the field of sustainability.

Our work adds value to existing research, addressing the issue of sustainability in the context of the banking performance of the Romanian banking system, by using and correlating relevant indicators, both at the micro and macroeconomic levels. Thus, by integrating the risks associated with sustainable development and creating an appropriate framework for the assessment and management of ESG risks, the bank's risk profile is properly substantiated.

1. Review of the scientific literature

Developing a new sustainable business model is a complex process, beyond simply rethinking the business plan, which involves adapting entrepreneurial and business development actions, and, very importantly, creating a risk management framework appropriate to the specificity of the new activity, even more the occurrence and implications of a possible crisis triggered by climate change or carbon emissions (for example) cannot be predicted and quantified by models based on historical data series (currently used). It is necessary to develop forward-looking tools, which will allow the aggregation of risk exposures between the lines of activity, which will facilitate the identification of risk concentrations and prospective methodologies, along with continuous education and training of resources, to increase the capacity and capabilities of action.

The importance of implementing environmental, social and governance (ESG) factors in the activity of companies is reflected by Eliwa et al. (2019), whose study supports the idea of

complementary roles between communities, market and state, showing that the market plays an important role in motivating companies to implement environmental, social and governance practices.

In the same context, Dinu (2010) emphasized the widespread recognition of the links between society and the environment, which led to the emergence of new requirements from all parties involved – customers, local communities, regulators, banks, which are interested in improving their own activity and, at the same time, supporting the good of the community.

The banking system has the role of financial intermediary between economic agents. Banks transform resources attracted from depositors into lending sources, having the possibility to select development projects to finance (Blanaru, 2011).

Liang et al. (2018) state that corporate social responsibility (CSR) is of special importance in the banking sector, given the fact that banks generate profit primarily from lending to clients – individuals or companies, the source being the deposits constituted by the public.

The incorporation of environmental, social and governance (ESG) factors into risk management strategies can be achieved in the light of the guidance applications developed by the World Business Council for Sustainable Development and the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2018), which aligns ESG risk management with firm risk management, in the context of an evolving business environment, the protection of long-term financial viability and the social profile of businesses.

In the context of the existence of a sustainable business environment, Standard & Poor's has launched the S&P 500 ESG index, which is more different from the S&P 500 index, and includes the largest 500 US companies listed on the Nasdaq Stock Market and New York Stock Exchange, broken down by business sectors, being considered the best representation of the US market for equity securities.

The S&P 500 ESG Index, launched in January 2019, is an alignment of environmental, social and governance values with investment objectives, in order to calculate the overall ESG sensitivity of a company, compared to other companies classified in the same industry (S&P Global, 2019), the performance of this index being reflected in figure no. 1. According to the S&P Dow Jones Indices, the financial sector holds 11,6% of the total, being the third largest sector in the index, after the information technology sector (26,5%) and the health sector (12,9%).



Figure no. 1. S&P 500 ESG Index Performance

Source: S&P Dow Jones Indices, 2020

Including the problem of sustainable development in the activity of companies offers them the possibility of obtaining competitive advantages, for significant periods of time. This can be reflected by integrating social and environmental responsibilities, which may consist, without limitation, in implementing programs to increase energy efficiency and reduce carbon emissions, support the development of cultural-sporting events, establish business strategies and creation of new services and products.

Awareness of the issue of sustainability at the level of companies/ banks takes various forms, from training their employees in formulating proposals on environmental protection, reducing the effects of climate change, recycling and eliminating waste, preventing pollution and food waste, until incorporating these initiatives in the strategy of sustainable development and the creation of internal structures to oversee the evaluation and implementation of these initiatives.

A business strategy that aims to be sustainable must consider three pillars (COSO, 2018), according to table no. 1:

- Environment: measures and actions regarding climate change, natural resources, pollution and waste, environmental opportunities;
- Social environment: measures and actions regarding human capital, product liability, stakeholder opposition and social opportunities;
- Governance: measures and actions regarding corporate governance and corporate behavior.

Table no. 1. Key issues in the implementation of ESG strategies

| Pillars | Themes | Key issues |
|--------------------|-----------------------------|---|
| Environment | Climate change | Carbon footprint Financing environmental impact Product carbon footprint Climate change vulnerability |
| | Natural resources | Water stress Supply of raw materials Biodiversity and land use |
| | Pollution and waste | Electronic waste Packaging materiality and waste Toxic emissions and waste |
| | Environmental opportunities | Cleantech opportunities Renewable energy opportunities Green building opportunities |
| Social | Human capital | Labor management Safety and health Human capital development Labor standards |
| | Product liability | Product quality and safety Privacy and data security Chemical security Responsible investment Financial product safety Demographic and health risk |

| Pillars | Themes | Key issues |
|-------------------|------------------------|---|
| | Stakeholder opposition | Controversial sourcing |
| | Social opportunities | Access to communications Access to health care Access to finance Opportunities in health and nutrition |
| Governance | Corporate governance | Board Accounting Pay Ownership |
| | Corporate behavior | Instability and corruption Business ethics Anti-competitive practices Tax transparency Financial system instability |

Source: COSO, 2018

Central banks, as regulators and supervisors, should be the promoter of the adoption of socially responsible investments (SRI). During a research performed in 2019, a questionnaire was proposed and 25 central banks replied. All of them have motivated the importance of adopting socially responsible investments to minimize reputational risk and to protect against sustainability risks, to set a good example for commercial banks, but also to improve the level of risk management (NGFS, 2019).

Commercial banks have run sustainability programs in recent years. From the banks' management perspective, social responsibility (CSR) is an approach that can support the reputation of banks, helping them to increase customer confidence (Shen et al., 2016; Wu and Shen, 2013).

An important place in the development of sustainable programs is occupied by the principles of diversity and inclusion, which suggest the variety of strategies and solutions adopted, as well as a higher level of commitment and motivation among team members, leading to more sustainable and profitable organizations. Creating a positive and inclusive workplace is essential for innovation and growth by strengthening the company's reputation, helping to attract and retain key talents.

Banks can contribute, through their actions and business strategies, to determining a certain behavior, so that individuals, economic agents and organizations can use the finance obtained in a responsible way, placed at the service of sustainable development and social cohesion (Eremia and Stancu, 2006). Credit institutions can provide to clients sustainable and quality financial products and services, by allocating the funds collected on productive destinations, generating added value in economic and social terms, so that, besides the eligibility of the applicant for financing, an important decision factor is also the viability, social impact of the project to be funded.

The importance of creating an appropriate framework for ESG risk assessment and management is based on the impact that the materialization of these factors can have on the bank's risk profile. From a financial point of view, quantifying the impact of ESG risks on the bank's activity and establishing relevant specific indicators are the first steps towards creating a sustainable strategy, so that sufficient resources can be allocated to limit the impact of the risk materialization (Gloßner, 2018).

The need to include ESG risks in risk management strategies is also motivated by the close correlation between ESG factors and significant risks in banking: ESG factors can become

contributing factors for the occurrence of financial risk, strategic risk, operational risk, reputational risk and compliance risk, and the proper management of these “classic” risks is a prerequisite for the proper management of ESG factors (COSO, 2018)

The strategic risk is determined by changes in the business environment, the lack of reaction to these changes, the unfavorable business decisions or the inappropriate implementation of the decisions. However, the strategic risk can also be determined by environmental factors that impose the ban on financing by banks of some areas of activity (for example), social factors - inadequate work practices or governance factors - management effectiveness.

The compliance risk is generated by violations or non-compliance with the legal and regulatory framework, with the standards in the field or with the recommended practices. In this respect, legislative changes in the environmental and social fields that are not implemented or are improperly implemented in the bank's activity may expose the credit institution to fines, damages or termination of contracts.

Factors associated with ESG risks also impact the reputation of a credit institution, creating an unfavorable perception for both customers and investors, shareholders, counterparties or supervisory authorities.

One of the most representative correlations can be realized between the ESG factors and the operational risk, risk resulting from the use of inadequate processes, people or internal systems or that have not fulfilled their function properly, or as a result of external events. Thus, environmental factors, such as severe weather, can cause damage that involves disruption of operations.

Given that ESG factors can directly impact most of the major risks of a bank's activity, the financial impact of these factors, materialized in financial risk, is also inevitable. Climate change is considered an important source of financial risk materialization (NGFS, 2019).

Big banks have improved their social responsibility activities and sustainable business practices, especially after the financial crisis of 2008. The financial crisis of 2008 highlighted the increase of certain new risks, that were not properly monitored and managed. The subsequent course allowed the authorities to develop a new governance framework for the financial-banking system. Technological changes, digitalization, changes in the regulatory framework have significantly impacted the governance framework of banking organizations. In their study, Wu and Shen (2013) showed that between social responsibility and return on assets (ROA), return on equity (ROE) and interest income is a positive correlation. The profitability of a credit institution, expressed most often by the return on assets, can be influenced by both external factors (environmental factors) and internal factors (Dietrich and Wanzenried, 2011).

Cornett et al. (2016) showed that the return on assets is closely and positively correlated with the CSR (corporate social responsibility) scores attributed to banks, so that credit institutions that have implemented social responsibility activities have also reported better financial performance.

According to a specialized study, which hypothesizes that total ESG performance is the sum of environmental performance, social performance and governance performance, the results show that environmental performance has an impact on the profitability of the firm's assets, while the firms that have a better overall ESG performance tend to be less profitable (Garcia et al., 2017).

In the case of Romania, the companies have registered some progress in correlating the performance with the ESG factors. According to a study in the field (Achim and Borlea, 2015), the results show that out of a sample of 65 companies listed on the Bucharest Stock Exchange, 73% adopted the best corporate governance practices in 2012, while the social and environmental activities were adopted by 93% of these companies, and Olaru et. (2010) set out, in their study, the incipient phase in which the questioned SMEs (small and medium-sized enterprises) are, regarding the involvement in activities associated with social responsibility. Cepoi and Toma (2016) states that the level of information asymmetry is significant for Romanian listed banks.

The ability of credit institutions to manage ESG risks depends not only on the industries and sectors financed, but also on the general risk management framework and the types of products and services they offer. Developing a risk management strategy at ESG, at the level of a banking organization, can become a strategic working tool, if the management principles are transposed into guides, if a unitary taxonomy is developed, if harmonization with the good practices developed at international level is achieved and adapt on an appropriate regulatory framework. The creation of a specialized department in the implementation of strategies and policies associated with ESG risks and the training of the entire staff of the credit institution will be natural consequences of these actions.

One of the effective tools that a bank can use for control and ESG risk assessment can be their own loan portfolio. Through it, banks can promote the inclusion of ESG risks management and customer awareness of their impact. Banks can add clauses to minimize these risks in the contractual documentation or can add value to the practices used and the services offered by their own clients.

The review of the scientific literature highlights important connections between social responsibility and performance indicators of the banking sector. In their study, Cornett et al. (2016) showed that, unlike small banks, large banks are more involved in social responsibility activities and actions, and between the size of the bank's management structure and the publication of ESG information is a positive relationship (Husted and de Sousa-Filho, 2018). In their study, Boitan and Nițescu (2019), show that there is a negative correlation between the size of the management structure and the managerial efficiency. External factors of the bank can impact performance indicators, as demonstrated by Nizam et al. (2019). Their study has shown that the return on equity of the bank is positively influenced by the inflation rate and the growth of the Gross Domestic Product.

2. Research methodology

The study aims to contribute, partially, to the future formulation of an answer variant for a complex question, which may derive from the title of the paper. Is ESG risk management, in fact, a challenge or rather an opportunity for the banking system? To provide the framework for an answer and to underline the intercorrelations between the indicators mentioned at the level of the banking system in Romania, the study proposed the following hypotheses:

- Hypothesis 1: Commercial banks with complex activity are more involved in social responsibility activities than small/ niche banks;
- Hypothesis 2: The number of members of the management body positively impacts the decision to get involved in social responsibility activities;

- Hypothesis 3: The unemployment rate, the inflation rate and the growth rate of the Gross Domestic Product impact the decision to adopt an ESG strategy;

- Hypothesis 4: Bank performance indicators (return on assets, leverage multiplier and loan-to-deposit ratio) negatively influence the decision to adopt an ESG strategy.

The case study reflected the impact of ESG (environmental, social and governance) variables on banks in Romania and, implicitly, the likelihood that these banks will implement ESG factors in their own risk management strategies, so that their impact is limited and the activity of these institutions to be considered sustainable.

The methodology used to verify the research hypotheses includes the collection of information from the Annual Transparency Reports and the accounting balances for the first 12 commercial banks in Romania, for the period 2007-2016 (Annual Reports, top 12 Romanian banks, 2007-2016, available on the institutions' websites). Based on this information we have determined financial indicators, relevant for each institution: return on assets, leverage multiplier and loan-deposit ratio.

Our research proposes the creation of a dummy variable, which reflects the absence or presence of environmental, social and governance factors in the activity of the respective credit institutions. From a macroeconomic perspective, we have highlighted to what extent the implementation of the principles of sustainability by banks can be influenced by the value of some indicators which indicate the state of the economy: the growth rate of the Gross Domestic Product, the unemployment rate and the inflation rate. Data for macroeconomic indicators were collected for the same time period, respectively 2007-2016.

The sustainability of the activity was considered a dummy variable. For this variable we have assigned the value 1 for each year in which the banks have taken concrete actions in the field of sustainability, otherwise the assigned value is 0.

To evaluate the impact of each variable considered on the probability of the bank adopting an ESG strategy, we started with the following regression equation:

$$E[Y_i] = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_n X_{in} + \varepsilon_i \quad (1)$$

Equation (1), estimated by the least squares method, will not provide efficient and consistent solutions because the assumption of the normality of errors will be violated. Indeed, in order to ε_i to have a normal distribution it is necessary that the dependent variable ESG, noted with Y_i to be a continuous one, which is not the case, being a binary one. In order to solve this problem and to maintain the linear part of equation (1), it is necessary to identify a function $f(\bullet)$ which, once applied to $E[Y_i]$, has the form:

$$f(E[Y_i]) = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_n X_{in} \quad (2)$$

Let p_i the probability that Y_i be equal to 1, i.e., the probability that the bank has an active ESG program. Obviously, the probability that this program will not be active, that is $Y_i = 0$, will be equal to $1 - p_i$. The odds ratio will be the ratio of the two probabilities, that is $\pi_i = \frac{p_i}{1-p_i}$. The value of this report is a number in the range $(0; \infty)$, for any sample that has at least one bank that has implemented an ESG program, i.e., $p_i \neq 0$. To represent equation (2) in a probabilistic context, we can apply the logit transformation for $\pi_i = \frac{p_i}{1-p_i}$ and use the new series as a dependent variable in equation (2):

$$\ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_n X_{in} \quad (3)$$

By logarithmizing the odds ratio, and implicitly the $(0; \infty)$ interval, we ensure that the resulting values will be in the range $(0; 1)$.

The information taken from the banks' balance sheets and Activity Reports were represented by: total assets, total equity, net profit, total credits, total deposits, total liabilities and number of members of the management body.

Based on the information collected from the balance sheets of the 12 commercial banks we calculated the following indicators: Return on assets, Leverage multiplier and Loans-Deposits ratio. All variables are presented in table no. 2.

Table no. 2. The variables used in the regression

| Variable | Acronym | Description |
|--------------------------------------|------------|---|
| Micro | | |
| Return on assets | ROA | Net profit/ Total assets |
| Leverage multiplier | EL | Total assets/ Equity |
| Loan-Deposit ratio | CDR | Total loans/ total deposits |
| Board members | BM | Number of members of each bank's management board |
| Macro | | |
| Inflation rate | RI | Annual inflation rate |
| Unemployment rate | RS | Annual unemployment rate |
| Gross Domestic Product's growth rate | GDP_growth | Annual growth rate of Gross Domestic Product |
| Dummy | | |
| Sustainable activities | ESG | Involvement in sustainable activities |

3. Results and discussions

From table no. 3 it is observed that the values of the correlation coefficient are less than 30% in absolute values, in all 7 situations (the data source for the inflation rate, the unemployment rate and the growth rate of the GDP is the National Institute of Statistics of Romania).

Table no. 3. Correlation matrix

| | ROA | EL | CDR | BM | RI | RS | GDP_growth |
|------------|--------------|--------------|-------------|--------------|--------------|--------------|-------------|
| ROA | 1.00 | | | | | | |
| EL | -0.10 | 1.00 | | | | | |
| CDR | -0.16 | 0.17 | 1.00 | | | | |
| BM | -0.05 | 0.30 | 0.19 | 1.00 | | | |
| RI | 0.11 | 0.04 | 0.19 | 0.16 | 1.00 | | |
| RS | -0.34 | 0.07 | 0.04 | 0.08 | 0.30 | 1.00 | |
| GDP_growth | 0.25 | -0.11 | 0.01 | -0.11 | -0.23 | -0.59 | 1.00 |

In table no. 4, we observe the $Prob > \chi^2$ value of 0.0211 (< 0.05). This reflects the fact that the model is well defined and the Logit regression performance is also good, the Pseudo-R²

value being about 15,09% (a Pseudo-R2 value of 20% is equivalent to the R2 value of 70% in the case of a linear regression).

Table no. 4. Logit Regression (Environment, Social & Governance - ESG)

| Iteration 0: log likelihood = -54.593371 | | | | | | |
|--|------------|-----------|----------------------|-------|----------------------|------------|
| Iteration 1: log likelihood = -47.010808 | | | | | | |
| Iteration 2: log likelihood = -46.359552 | | | | | | |
| Iteration 3: log likelihood = -46.356652 | | | | | | |
| Iteration 4: log likelihood = -46.356652 | | | | | | |
| Logistic regression | | | Number of obs = 108 | | | |
| | | | LR chi2 (7) = 16.47 | | | |
| | | | Prob > chi2 = 0.0211 | | | |
| Log likelihood = -46.356652 | | | Pseudo R2 = 0.1509 | | | |
| ESG | Coef. | Std. Err. | z | P> z | [95% Conf. Interval] | |
| ROA | -0.4880576 | 0.2845128 | -1.72 | 0.086 | -1.045692 | 0.0695774 |
| EL | -0.1611182 | 0.0596847 | -2.7 | 0.007 | -0.2780981 | -0.0441383 |
| - | - | - | - | - | - | - |
| CDR | 0.58922946 | 0.4483877 | -1.31 | 0.189 | -1.468118 | 0.289529 |
| BM | 0.4149619 | 0.1640765 | 2.53 | 0.011 | 0.0933778 | 0.736546 |
| RI | -0.067361 | 0.0943143 | -0.71 | 0.475 | -0.2522136 | 0.1174915 |
| RS | -0.1107542 | 0.6438012 | -0.17 | 0.863 | -1.372581 | 1.151073 |
| GDP_growth | -0.0179432 | 0.0833362 | -0.22 | 0.830 | -0.1812792 | 0.1253927 |
| _cons | 2.295898 | 4.671973 | 0.49 | 0.623 | -6.861001 | 11.4528 |

Logit regression shows that the return on assets (ROA), the leverage multiplier (EL) and the number of members of the management body (BM) indicators are statistically significant, as opposed to the loan-deposit ratio (CDR), while the indicators unemployment rate (RS), inflation rate (RI) and GDP growth rate (GDP_growth) are less statistically significant, leading to the invalidation of Hypothesis 3, according to which the unemployment rate, the inflation rate and the growth rate of the Gross Domestic Product impact the decision to adopt an ESG strategy.

From the output of the regression, it can be observed that both the coefficients for return on assets (ROA) and leverage multiplier (EL) are negative, which shows that as the value of the two indicators increases, the probability of the commercial bank implementing a management strategy of ESG risks decrease. Thus, Hypothesis 4 is partially validated, as the loan-to-deposit ratio (CDR) is not statistically significant.

The coefficient of the variable that defines the number of members of the management body (BM) is positive, which demonstrates a positive relationship between this variable and the decision to adopt an ESG strategy. Thus, both Hypothesis 1, according to which banks with complex activity are more involved in social responsibility activities than small banks/ niche banks, and Hypothesis 2, according to which the number of members of the management

body positively influences the decision to get involved in social responsibility activities, are validated.

The results of this study do not follow the line of studies carried out in the American or Asian markets, for which references are found in the presented material, given that the banks operating in these markets have assigned social responsibility scores, and the impact of the activities and actions undertaken by them are quantified and correlated with the entire economy.

Studies conducted on different markets have shown that banks' performance is positively influenced by the implementation of ESG strategies; although the implementation of sustainability strategies involves costs, the risk-return ratio is subunitary, so that each monetary unit invested for the purpose of a sustainable activity returns at least one profit unit, and the short-term actions have long-term effects. During the analyzed period, there was an intensification of concerns and actions taken to consider ESG risks by Romanian commercial banks that were the subject of the study, finding a strong, permanent and lasting involvement in the case of financial institutions, subsidiaries of international groups. This conclusion is also validated by Cornett et al. (2016), which showed the directly proportional relationship between the size and complexity of banks' activity and their involvement in social responsibility actions.

Sustainability risk management in the Romanian banking sector was achieved during the analyzed period by implementing programs to increase energetic efficiency and reduce carbon emissions, support the development of cultural and sporting events, establish business strategies and create new services and products, focused especially on technological support and remote distribution.

The results of the analysis highlight the future opportunities for the commercial banks in Romania, in order to approach a strategic thinking, to integrate sustainability in the bank's activities, to translate the principles to the clients of the bank, by raising awareness of the risk factors and identifying solutions to minimize their potential impact. Also, the widespread recognition of the links between society and the environment, has led to the emergence of new requirements from all parties involved - customers, local communities, regulators, banks, who are interested in improving their own business and, in at the same time, to support the good of the community, as Dinu (2010) pointed out in his study.

The implementation of ESG strategies represents challenges for the banking system, given the diversity of factors associated with the environment (carbon emissions, electronic waste, green construction), the social environment (health risk, access to communications, health and safety) and governance (business ethics, instability of the financial system) that can impact the activity of banks.

Conclusions

Integrating ESG risks are challenges for the sustainability of banking business. The transformation of these challenges in a strategic opportunity at the level of the banking system in Romania can be achieved by the gradual implementation, the adaptation of the good practices, the creation of the instruments for measuring the impact, the modification/completion of the governance framework at the banks level, the adequate training of the banking staff and customers.

The presented case study highlights the fact that there is interest at the level of the Romanian banking system in defining and implementing an efficient management regarding the sustainability risk, in order to ensure the necessary conditions for continuous development, by identifying and evaluating the specific risks, starting from the social, economic and environmental vulnerabilities we are facing.

Our paper reflects the need to approach sustainable practices in the banking sector in Romania, in an extended and uniform way, starting from the elaboration of specific regulations, issued by the central regulatory authorities and also establishing specific indicators for the entire banking system in addressing ESG risks, in association with the significant risks assumed by credit institutions through their risk strategies. In the context of globalization, the main banks operating in the Romanian market are part of international groups, so it is necessary to harmonize and align the risk management policies at their level.

Involving commercial banks in social responsibility programs, financing the so-called "green projects", supporting business in agriculture, sponsoring cultural and sports programs, promoting volunteer actions among employees are important steps in creating a sustainable banking environment. Awareness of the impact that environmental, social and governance factors have on banking activities, including on expected financial results for significant periods of time, by providing qualified personnel on a continuous basis, information systems adapted to current business and needs, business continuity plans in crisis situations, building strategic partnerships, efficient and effective collaboration with regulatory and supervisory authorities are benchmarks for sustainable banking business.

The correlation of ESG risks with the significant risks considered by banks, the creation of specific indicators for quantifying ESG risks, implicitly the inclusion of ESG risks in risk management strategies, represents actions to be taken to create a sustainable business environment, in the context that possible crises triggered by climate change or carbon emissions cannot be predicted through models based on historical data series.

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