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DOES THE INTEGRATED REPORTING INFLUENCE THE FINANCIAL PERFORMANCE WITHIN THE BANKING SYSTEM? CASE STUDY ON ROMANIAN BANKS

Maria-Mădălina BOGEANU-POPA, Mariana MAN

University of Petroșani, Romania
madalinabogeanu@yahoo.com, man_mariana2006@yahoo.com

Abstract: *The banking sector, as compared to other sectors of activity, represents a level of credit risk or of credit quality, measured through the rate of unperforming loans. This paper has the purpose of analysing in what measure the integrated reporting (from the point of view of financial, environmental, and social dimensions) influences the financial performance of the banking entities in Romania. This study encompasses a sample composed of 19 presently active banking entities on the Romanian market which publish financial and non-financial reports, as part of the integrated reporting. To evaluate and determine the impact of each of the integrated reporting's components on nonperforming loans, one referred to data analysis through multiple linear regression. The study's results have demonstrated that the financial and environmental information influence the rate of nonperforming loans from the Romanian banking system. Regarding the social components of the integrated reports, these do not impact under any manner the banking system's performance measured through nonperforming loans.*

Keywords: integrated reporting, financial performance, banking system, nonperforming loans

1. Introduction

The banking entities have always had an important role in sustainable development. Banks have been considered benchmarks when it comes to long-term integrated reporting. The integrated reporting term refers to publishing both financial and non-financial information. The permanent and mandatory publishing character is just for financial information, whereas non-financial reporting is voluntary, becoming mandatory only when at the date of the balance sheet the number of employees exceeds 500. The financial reporting reflects the financial performance, while non-financial reporting takes the form of environmental, social and governance (ESG) type information.

The presence of integrated reporting within the banking system started mainly under the assumption that it manages funds and allows the access to financial resources which plays a vital role in the credit market. Another idea referring to the banks' interest towards adopting sustainable actions and respectively towards drafting of integrated reports refers to their reputation. The financial and banking sector has been the promoter of voluntary integrated reporting ever since before the appearance of the reporting legislative framework. Another aspect of non-financial reporting from the banking system refers to getting through the present period, respectively the global

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warming effects which are reflected upon financial institutions and delays their sustainable development. To answer to present challenges, the banking system sent out information through its own mechanisms in a transparent manner for them to be useful on a large scale [1].

Just like many economic entities active on the market, within the evaluation of a banking unit one takes into consideration its financial performance. That being said, within the banking system the financial evaluation is determined through the percentage of nonperforming loans, out of which results an indicator of the credit risk. By analysing nonperforming loans, interested parties could obtain an overall situation regarding the banking entity's performance. In other words, the bank's credit risk level is inversely proportional to the level of nonperforming loans [1], [2].

The banking entities which publish non-financial or corporate social responsibility (CSR) reports present an advantage in knowing their performance and reputation on the market. This materialises into the possibility of identifying and attracting solvent debtors which can later influence income growth and the asset quality within the banking entity.

Within this study one referred to using a control variable, respectively the rentability of assets (ROA), which can be used for measuring the entity's profitability through the rate of asset rentability.

Within the Romanian banking system there exists a limit of 5% concerning the share of nonperforming loans out of the total number of loans [1]. Surpassing this percentage affects the performance and intervenes in the qualitative development of the banking entity. The credit risk level offers the possibility of analysing performance in a transparent manner [1].

Calculating the rate of nonperforming loans (NPL) can be made using the following formula:

$$NPL = \frac{\text{nonperforming loans}}{\text{total no. of loans}} \text{x}100 \quad (1)$$

2. Brief Literature Review

Studying the specialty literature [2], [3], [4] it is found that there are divergent views regarding the impact of CSR type social information on the financial performance of banking entities. According to research [2], [3], it has been appreciated that the CSR type social information has a negative impact on nonperforming loans because the lower the nonperforming loan rate, the better the financial performance. But, through studies made in this sense over time [4] it has been demonstrated that the aspects of sustainability rendered through CSR have an unsignificant impact on nonperforming loans from the banking sector.

According to authors [4], the reporting of sustainable elements by the banking entities could increase creditworthiness, a desirable thing to happen as it lowers the value of the nonperforming loans' rate.

Other studies made over time [5] have shown that reporting environmental aspects has a positive influence on the corporate value. This is demonstrated through the fact that reporting environment related information together with environment related actions, helps towards a growth of the economic entity's reputation and a third-party trustiness, leading to an improvement of the financial performance. Using natural resources which positively impacts financial performance is a supported fact throughout the years [6], through which it is demonstrated that there exists a significant relation between publishing environmental aspects through CSR reports and the financial performance.

Other authors [7] believe that the environmental elements together with the social ones from within the CSR reports influence the financial performance.

Some studies [5] appreciate that the social dimension published in sustainable reports is related to the banking entity focusing on the community. The authors [6] think that banking entities will always be constrained by the social environment because their

acceptance within the community depends on it. Other research [8] appreciates that publishing social aspects affects the perception of the interested parties regarding the way a company treats resources it comes in contact with.

3. The integrated reporting's influence on the banking system's financial performance

According to the World Commission of Environmental and Development, it is appreciated that by reporting non-financial information the sustainable development objectives are supported, which on the long run aim to maintain a sustainable growth, a sustainability of the social life and of the community, leading to economic well-being. To achieve these goals, one must take into consideration the quality of the environment, the development and the implementation of a policy capable to answer to these challenges [9].

Presenting the information in integrated reports offers a transparent image and improves the interested parties' trust towards resources of capital that are more competitive while having a lower risk factor. On the long term, this leads to improving the trust of the investors and the creditors within the banking entity, which leads to the growth of financing resources [10].

The attention towards non-financial performance is due to the awareness that through calculating the profitability of an entity one cannot appreciate the long-term success. The integrated reporting the entity drafts proves to be an instrument for monitoring, control, performance establishment and adoption of decisions within the entity.

The environmental and social elements within the non-financial report contribute to transparency and risk management strengthening all while improving the third-party communication apart from economic, strategic, and operational matters [8]. Approaching these dimensions is an important element for the banking entities because it reflects their contribution in environmental and social issues.

This represents a form of responsibility through which operational activities are developed, having an influence on the financial, social, and environmental performance.

4. Research methodology

In drafting this paper, the qualitative as well as the quantitative research was used. Through qualitative research one referred to the specialty literature as data has been collected and analysed and interpretations have been made. Through the quantitative research the results of the processing were highlighted and processed accordingly. The presented data volume allowed for the result processing to be relevant. The objective of this paper is to establish whether integrated reports influence the financial performance in the Romanian banking system having as benchmark the rate of nonperforming loans.

4.1. Hypotheses issuing

Starting from the aforementioned and considering the studies made up until now, according to the specialty literature, the following hypotheses can be issued:

H_1: Reporting financial and non-financial information influences the rate of nonperforming loans in the Romanian banking system.

H_2: Including environmental information within the integrated reporting has an influence on the financial performance in the Romanian banking sector.

H_3: Including social information within the integrated reporting has an influence on the financial performance in the Romanian banking sector.

4.2. Data collection

In order for this research to be drafted, the Romanian banking system has been studied to identify the active banks on the Romanian market in 2023. As a result of documentation on the matter, a number of 27 banking units has resulted, out of which 19 of these banking units have been

selected as samples [11]. Other than financial reports, these also present non-financial reports specific to 2022. The data collected comes from annual reports of banking entities which contain financial situations, non-financial reports, sustainability reports, CSR reports and non-financial declarations.

4.3. Data analysis

To validate or invalidate the issued hypotheses, the econometric model of descriptive statistical analysis as well as the multiple linear regression have been used, and for data processing the Stata software program and Microsoft Excel were used.

The result of the linear regression is given by the equation:

$$N = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Y \quad (2)$$

Where: N=nonperforming loans (NPL); α = constant; $\beta1$, $\beta2$, $\beta3$, $\beta4$ = regression coefficients; X_1 = financial information reporting; X_2 = environmental elements reporting; X_3 = social elements reporting; Y=ROA.

5. Research results

Based on Table no. 1, one can notice that the average of the dependent variable, respectively the rate of nonperforming loans (N) and of the independent variables (X_1, X_2, X_3) is higher than the standard deviation of each variable, which indicates that the data has a normal distribution.

Table 1 Standard deviation results

	Financial information reporting (X_1)	Environmental information reporting (X_2)	Social information reporting (X_3)	ROA (Y)	Rate of nonperforming loans (N)
Mean	1	0,947368421	0,789473684	11,7665	4,368947368
Standard Error	0	0,052631579	0,096091677	2,87342	0,343472885
Median	1	1	1	5,78318	4,4
Stand. Deviation	0	0,229415734	0,418853908	12,5249	1,497163595
Sample Variance	0	0,052631579	0,175438596	156,874	2,24149883
Range	0	1	1	45,9152	5,46
Minimum	1	0	0	0,3455	2,44
Maximum	1	1	1	46,2607	7,9
Sum	19	18	15	223,564	83,01
Count	19	19	19	19	19

When it comes to the independent variable, financial information reporting (X_1), the average (0,947368421) is higher than the standard deviation (0,229415734) which means that more data hovers around the average value.

In table 2 the results of the multiple linear regression are presented, with the determination of the significance threshold of 0,05.

The regression model tests independent variables.

Table 2 The results of the multiple linear regression

NPL	*Coefficients*	*Stand. Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	7,511855	2,134488	3,5192767	0,003402	2,933833	12,08987
X_1	0	0	65535	0	0	0
X_2	-2,98270	1,77014	-1,685011	0	-6,77928	0,813867
X_3	-0,77722	0,72246	-1,075797	0,300209	-2,326766	0,772309
Y	0,025191	0,032183	0,782743	0,446817	-0,043835	0,094218

						Multiple R	0,66
	df	*SS*	*MS*	*F*	*Signif. F*	R^2	0,44
Regress.	4	17,82715099	4,4567877	2,770671	0,069073552	Adjusted R^2	0,28
Residual	14	22,51982796	1,6085591			Stand. Error	1,26
Total	18	40,34697895				Observations	19

From the results obtained one can appreciate that the general regression model is significant due to the registered probabilities, respectively 0,069 < p. The F statistic is of 2,77, and the residual sum of squares is 22,52 with a freedom degree of 14.

Through regression, independent variables can explain the fact that the general test has a 0,44% effect on nonperforming loans. The regression analysis indicates that out of the Y variables, the rentability of the economic entity has the highest Beta value of 0,025 suggesting that it influences the nonperforming loans (NPL) relation in a small measure. Judging by the values registered by the other variables it results that they do not have any influence whatsoever on the NPL dependent variable, that is nonperforming loans.

Regarding variable X_1= financial information reporting, Prob > F is 0, which means that it is smaller than the significance threshold of 0,05, suggesting that the data has a significant influence on publishing sustainability reports overall and on the nonperforming loans (NPL) dependent variable within the Romanian banking sector.

The Adj R-Squared indicator is of 0,4486, which results that the factors which influence the rate of nonperforming loans have a 44% impact on the integrated report publishing (financial, environmental, and social information reporting).

6. Discussions and conclusions

Considering the issued hypotheses, when it comes to *H1: The financial and non-financial information reporting influences the rate of nonperforming loans within the Romanian banking sector,* it is validated. As an argument to this is the result p > t of 0, so it is lower than the significance threshold of 0,05, meaning that reporting financial and non-financial information has an impact on nonperforming loans (NPL).

In the case of *H_2: Including environmental information within the integrated reporting has an influence on the financial performance within the Romanian banking sector,* it is validated. Much alike to the anterior hypothesis, the result p > t is 0, being lower than the significance threshold of 0,05, meaning that reporting environmental information within the integrated reporting has an impact on nonperforming loans.

The last issued hypothesis, *H_3: Including social information within the integrated reporting has an influence on the financial performance within the Romanian banking sector,* it is invalidated. The decision comes from the result p > t of 0,300209, being higher than the significance threshold of 0,05, resulting that reporting social information within the integrated reporting has no influence on nonperforming loans within the banking sector.

The control variable used within the paper was the rentability of assets (ROA) which has demonstrated having no influence on nonperforming loans because the value p>t is of 0,446817, which is significantly higher than the significance threshold.

In conclusion, within this study research has been made regarding the influence of the integrated reporting on the financial performance within the Romanian banking system. According to the results obtained, the impact on the nonperforming loans proved to be existent when, within the integrated reporting, financial and environmental information is found. The social reporting made within the Romanian

banking system does not influence the rate of nonperforming loans.

We appreciate that this can mean that the financial and environmental reporting contributes to the reduction of the nonperforming loan rate within the banking system. Through publishing non-financial information, the clients' trust in the banking system can be increased, therefore improving its performance.

Even though the financial and non-financial reporting influence the rate of nonperforming loans, the obtained results are in concordance with the theory of the interested parties through which it is explained that a company does not function just for its own interests, but for the interests of the interested parties. By requiring financial information to be published, one aims to increase the interested parties' trust, while voluntary publishing of non-financial information aims to increase the transparency and credibility of the banking entity.

Even if it has been demonstrated that the social elements within the integrated reporting do not impact financial performance, this aspect must not be neglected in future research. Manifesting interest for CSR type social elements can be materialized in the subsequent development of the research, respectively the analysis of the social performance-financial performance binomial or the analysis of the social accounting relation-social performance binomial.

References List

[1] Gellidon J.A.A., Soenarno Y.N. Comparative Study of Sustainability Reporting on the Banking Industry in Several Countries. Audit Financiar. 2022. XX (166): 348-358.

[2] Simpson, W. G., Kohers, T. The link between corporate social and financial performance: Evidence from the banking industry. Journal of Business Ethics. 2002. 35(2): 97-109.

[3] Wu M.-W., Shen C-H. Corporate social responsibility in the banking industry: Motives and financial performance. Journal of Banking & Finance. 2013. 37 (9): 3529-3547.

[4] Razafindrambinina, D., Grace, V. Implications of CSR on non-performing loans in the Asean banking industry. PalArch's. Journal of Archaeology of Egypt/Egyptology. 2021. 18(1): 103-115.

[5] Deloitte. Finance for a sustainable future: A new dynamic opportunity [Internet]. 2022 Available at: https://www2.deloitte.com/content/dam/Deloitte/us/Images/sustainable-finance/SustainableFinanceReport.pdf

[6] Ngwakwe C.C. Environmental responsibility and firm performance: Evidence from Nigeria. International Journal of Humanities and Social Sciences. 2009. 3(2): 97-103.

[7] Tarigan J.,Semuel H. Pengungkapan sustainability report dan kinerja keuangan. Jurnal Akuntansi dan Keuangan. 2014. 16(2): 88-101.

[8] Sejati B.P., Prastiwi A. Pengaruh pengungkapan sustainability report terhadap kinerja dan nilai perusahaan. Diponegoro Journal of Accounting. 2015. 195-206.

[9] Liu S., Jin J., Nainar K. Does ESG performance reduce banks' nonperforming loans? Finance Research Letters. 2023. 103859.

[10] Khan H.-Z., Bose S., Johns R. Regulatory influences on CSR practices within banks in an emerging economy: Do banks merely comply? Critical Perspectives on Accounting. 2020. 71: 102096.

[11] Curs BNR. Lista bănci din România [Internet]. 2023 Available at: https://www.cursbnr.ro/lista-banci