Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

THE IMPACT OF NON-REPAYABLE FINANCING ON THE PROFITABILITY OF ENTITIES IN THE MANUFACTURING INDUSTRY

Violeta CODREAN
Academy of Economic Studies of Moldova, MD-2005, Republic of Moldova
codrean.violeta@ase.md
ORCID: 0000-0002-1966-8006

Svetlana MIHAILA
Academy of Economic Studies of Moldova, MD-2005, Republic of Moldova
svetlana.mihaila@ase.md
ORCID: 0000-0001-5289-8885

Veronica GROSU
Stefan cel Mare University of Suceava, 720229, Romania
veronica.grosu@usm.ro
ORCID: 0000-0003-2465-4722

Abstract
Non-repayable financing, in the form of grants, is an important strategic tool for supporting the development and competitiveness of small and medium-sized enterprises, especially in the manufacturing sector. This paper analyzes the impact of non-repayable financial support on the profitability of beneficiary entities in the Republic of Moldova. The study combines a theoretical analysis of the concepts of financial performance and profitability with an applied approach based on financial data for a sample of 10 entities in the manufacturing industry that benefited, in 2023, from the maximum grant under a government support program managed by Public Institution „Organization for the Development of Entrepreneurship" - IP ODA. Methodologically, the research uses descriptive analysis, the t-test for paired samples, and the simple linear regression model to assess the relationship between non-repayable financing and the profitability of beneficiary entities. The results indicate that grants contribute to improving financial performance by increasing the asset base, strengthening equity, and increasing profitability. However, the effects depend on the strategic alignment of investments, managerial capacity, and the efficient use of resources. The paper highlights the importance of strategic planning and effective management for the optimal use of non-repayable financing.

Keywords: *Non-repayable funding; grant; financial performance; profitability; manufacturing industry*

JEL Classification: *M40, M41*

Received on*:* 3 January 2026 **Accepted on:** 5 March 2026 **Released on:** 8 April 2026

INTRODUCTION

Economic agents play a decisive role in a country's economic development and in determining its potential, as this is where economic substance is created. The economic power and standard of living of a country actually depend on the costs of obtaining products and services, their quality, and the ability of entities to market them profitably. The role of an entity in a country's economic circuit is exercised by fulfilling two functions: creating added value and participating in the distribution of income (Constantinescu et al., 2006, p.18).

In this context, the importance of the small and medium-sized enterprise (SME) sector in all national systems as the basis for the development of a modern, dynamic, and knowledge-based economy is clearly outlined (Epure, 2005, p.205). According to data published by the National Bureau of Statistics (NBS, 2024), in 2023, SMEs accounted for 99.2% of all enterprises in the Republic of Moldova (RM), and they employed 65.3% of the total average number of employees in the corporate sector. Therefore, SMEs are the driving force of the national economy, and ensuring their access to adequate sources of financing becomes an essential condition for efficient economic activity (Federal Ministry of Finance, 2015, p.10).

Given this framework, in 2007, Ministry of Economic Development and Digitalization of the Republic of Moldova (MDED) founded the Organization for the Development of the SME Sector, currently the Public Institution *„Organization for the Development of Entrepreneurship"* (IP ODA). This is a self-managed legal entity under public law, whose mission is to implement the state policy on supporting the development of

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

entrepreneurship, including SMEs, in accordance with the strategies and programs approved by the Government of Moldova (GoM, 2022). The basic functions of the IP ODA include the effective implementation of state programs and projects in its areas of activity, providing support to enterprises in the organization's areas of activity, administering the financial resources allocated for the implementation of state programs and assistance projects, impact assessment, monitoring and verification of the quality of implementation of state programs and assistance projects, etc. The activity of the IP ODA is regulated by a set of normative acts and strategies approved by the Government, such as: *the National Development Strategy „European Moldova 2030"* (Parliament of the Republic of Moldova, 2022), *the National Development Plan for 2023-2025* (GoM, 2022), *the Government Action Plan for 2023* and *the MDED Action Plan for 2023* (MDED, 2024).

The national development strategy „European Moldova 2030", approved by Law No. 315 of 17.11.2022 (Parliament of the Republic of Moldova, 2022), emphasizes the importance of supporting SMEs through active policies to increase productivity, promote innovation, and stimulate investment. Within these policies, grants are a central tool used to facilitate the modernization, digitization, and increased competitiveness of domestic entities.

According to Graur (as cited in Grigoroi et al., 2021, p.565), grants fall into the category of special-purpose financing and receipts, which represent *„means in the form of cash, assets, or services whose use is conditional on the performance of actions based on special conditions set out in agreements, projects, or regulations".* Therefore, a grant is a form of non-repayable financial support, allocated from public or international funds, with a specific and contractually regulated purpose. In practice, grants are awarded for the purpose of financing investment projects, on a competitive basis and following a rigorous evaluation process. Since non-repayable financing is predominantly directed toward investment projects, clarifying the concept of investment becomes essential for understanding both the decision-making process and the efficient use of external resources (Covali et al., 2020). External financing aspects are crucial for the survival and development of the entity. According to Hoanță (2003, p.286), *„in financial terms, investment represents the renunciation of a present and certain amount of money in the hope of obtaining higher, but probable, future income; and in accounting terms, it involves allocating an amount of available money to purchase a fixed asset that will generate future cash flows and operating expenses that must be covered by future cash flows"*.

From the perspective of researcher Mironiuc (2018, p.113), investment represents *„the implementation of the decision to change certain amounts of money, present and certain, in the process of obtaining fixed assets, purchasing current or financial assets, from whose exploitation it is estimated that higher, uncertain, and probable future revenues will be obtained"*. At the same time, Vasile (1997, p.178) mentions in his work that *„in a narrow definition, only expenses that result in the acquisition of durable goods are considered investments"*.

Regardless of how they are defined, investments are the consequence of the most important category of financial decisions, namely investment decisions.The investment decision is a strategic decision and is an integral part of the entity's overall policy. It is not only a capital investment, but also a specific activity that aims to place the entity in a certain position on the market, initiate and maintain business relationships with entities from different sectors of activity etc. (Hoanță, 2003, p.285).

Investments represent not only a strategic allocation of resources, but also an essential component of the process of strengthening the entity's financial performance. Their evaluation must also take into account the potential risks that may affect profitability. As emphasized by Grosu et al. (2018, p.165), performance indicators must be selected in correlation with the entity's strategic objectives, activity profile, and investment period. Therefore, non-repayable financing becomes a key tool in supporting investment decisions, especially for entities that do not have sufficient resources or borrowing capacity. The allocation of a grant can directly influence profitability indicators, the level of financial risk, and, implicitly, the entity's ability to generate added value in the medium and long term.

Obtaining a grant means increasing funding sources without generating repayment obligations, which leads to improved financial autonomy and reduced indebtedness for the entity. On the other hand, the efficient use of funds for productive investments can contribute to increasing production capacity, optimising costs, diversifying the range of products or services, elements which, over time, are reflected in financial performance indicators.

Therefore, the effects of non-repayable financing on financial performance are not uniform, depending on factors such as: the maturity of the entity, the sector of activity, managerial capacity, and the consistency between the investment objectives and the overall strategy of the entity. In the absence of a rigorous selection mechanism or effective monitoring, grants can lead to inefficient allocation of resources, with no sustainable effects on performance. In theory, non-repayable financing is considered a catalyst for economic and financial performance, provided that it is linked to a strategic vision, proper implementation, and the application of effective management and internal control practices by the beneficiary.

Profitability, as a fundamental indicator of financial performance, reflects an entity's ability to generate profit in relation to the resources used. From this point of view, grants can have a positive impact on profitability,

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

in particular by reducing the cost of capital and increasing the economic efficiency of investments made. Non-repayable financial support for the purchase of equipment, technology, or infrastructure upgrades can help lower production costs, increase labor productivity, and boost net financial results. However, in the absence of a repayment obligation, the positive impact on net profit is even more pronounced, which can lead to an increase in return on equity and return on assets.

However, the positive effects of grants on the entity's financial performance are not guaranteed, as there are certain limitations and risks associated with non-repayable funding, particularly if the allocated resources are not managed efficiently or are not aligned with the entity's actual needs. These risks include: excessive dependence on external sources, administrative costs of accessing and reporting, possible delays in the transfer of payment installments, and, in some cases, overestimation of project implementation capacity. As highlighted in the literature, the absence of rigorous feasibility analysis and an adequate monitoring framework can cause non-repayable financing to generate financial imbalances, ultimately undermining expected profitability (Covali & Cosmulese, 2020). Consequently, the effective use of grants requires a strategic vision, realistic planning, and robust internal control mechanisms.

An extensive theoretical perspective on financial performance is provided by authors Zlati et al. (2022, p.63), who believe that it cannot be separated from the general economic context and the sustainability of resource use. According to them, performance should be quantified not only by profitability, but also by *„the ability of resources to meet financial needs in a fair and sustainable manner, in the presence of financial risk"*. In this vein, the approach argues that the positive impact of non-repayable financing is sustainable only if investments are aligned with economic realities, external risks, and the entity's capacity for adaptation and internal efficiency.

In light of the above, the *purpose of this paper* is to conduct theoretical and applied research on financial performance analysis from a profitability perspective, including an overview of external factors that may influence its level. Among these factors, non-repayable financing in the form of grants stands out, which, by stimulating investment and strengthening competitiveness, has a direct influence on profitability. Given the increasingly important role of public support instruments, the research proposes a broad perspective on the impact of grants on the level of profitability recorded by a sample of 10 entities in the manufacturing industry that have benefited from non-repayable financial support. Thus, the research combines a conceptual approach, focused on the theoretical foundations of performance and profitability, with an applied analysis of financial results, in order to assess the impact of grants on them.

The methodological approach of the research is structured on two complementary dimensions: theoretical-documentary and applied-analytical, and is based on the methodological tools established in the social sciences, including: the analytical method, the comparative method, the systemic method, the synthesis method, as well as the induction and deduction methods. In the theoretical stage, the research analyzed the specialized literature, and in the applied stage, it was based on quantitative and statistical methods specific to the economic sciences, focused on the analysis of financial data and the evaluation of the interdependence relationships between performance indicators. In order to assess the impact of non-repayable financing on the level of profitability among beneficiary entities in the manufacturing industry, the following methods were applied: descriptive analysis, Student's t-test for paired samples, and the simple linear regression econometric model, using EViews 12 Student Lite software as a statistical processing tool.

I. NON-REPAYABLE FINANCING AS A PUBLIC INTERVENTION MECHANISM FOR THE DEVELOPMENT OF THE SME SECTOR

In 2023, IP ODA managed a portfolio of 10 government support programs, financed from the state budget, aimed at supporting the development of entrepreneurship and strengthening the SME sector. The size of the grants awarded under these programs varies depending on the specific objectives and the category of beneficiaries targeted. Overall, the level of non-repayable financial support varies between 20,000 and 2,000,000 lei for each entity. Therefore, this financial support provides entities with the opportunity to initiate, expand, or modernize their economic activity, contributing to reducing the financial pressure associated with investment projects and supporting medium-term development decisions.

The IP ODA prepares and submits (quarterly, annually) statistical information on the implementation of state programs and the use of financial resources allocated for their implementation. These reports include data on the number of grant recipients, the amount of financial support approved, the geographical distribution by administrative-territorial units, and their classification according to CAEM-2. For illustrative purposes, *Figure 1* presents a comparative summary of investment projects submitted and approved during 2023, as well as the distribution of non-repayable financial support granted under programs managed by IP ODA.

It can be seen that there is a significant concentration of financial support within th*e Program for the*

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

Retrofitting and Energy Efficiency of Small and Medium-Sized Enterprises, approved by Government Decision No. 515 of July 22, 2022, which attracted the largest number of approved investment projects and the highest total value of grants offered – 168,096,843 lei. This trend reflects the strategic orientation of public policies towards technological modernization and increased energy efficiency, areas that are essential for strengthening long-term economic competitiveness.

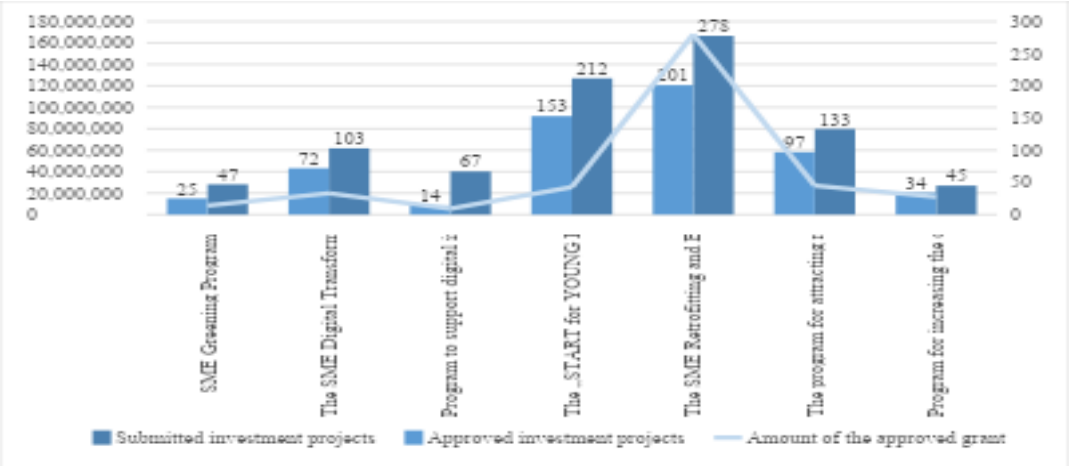


Figure 1. Distribution of investment projects and grants approved under programs managed by IP ODA in 2023
Source: prepared by the author based on IP ODA, 2024

Also, *the programs for attracting remittances into the economy „PARE 1+2" and „START for YOUNG PEOPLE: a sustainable business at home"*, approved by Government Decisions No. 622 of 07/09/2022 and No. 348 of 01 June 2022, stand out with a significant number of approved projects, totaling 52,638,550 lei in non-repayable funding. These programs aim to support returning migrants and young entrepreneurs, contributing to economic inclusion and the capitalization of human capital in the local business environment. In the same context, support programs for start-ups in the field of technology and greening initiatives are at the bottom of the ranking, which is understandable given their relatively recent nature, the high degree of complexity of the proposed projects, and the more limited scope of these support instruments.

It is noteworthy that the differences between the number of investment projects submitted and those approved suggest the existence of a competitive selection process based on eligibility criteria, technical feasibility, and estimated economic impact. The rigorous selection of investment projects ensures the judicious allocation of public funds, but requires adequate institutional and procedural capacity on the part of applicants.

Given the strategic orientation of non-repayable funding highlighted in Figure 1, it is relevant to examine the distribution of approved grants by economic activity, according to CAEM-2. Therefore, *Figure* 2 reflects the distribution of the number of beneficiaries and the total value of grants approved in 2023.

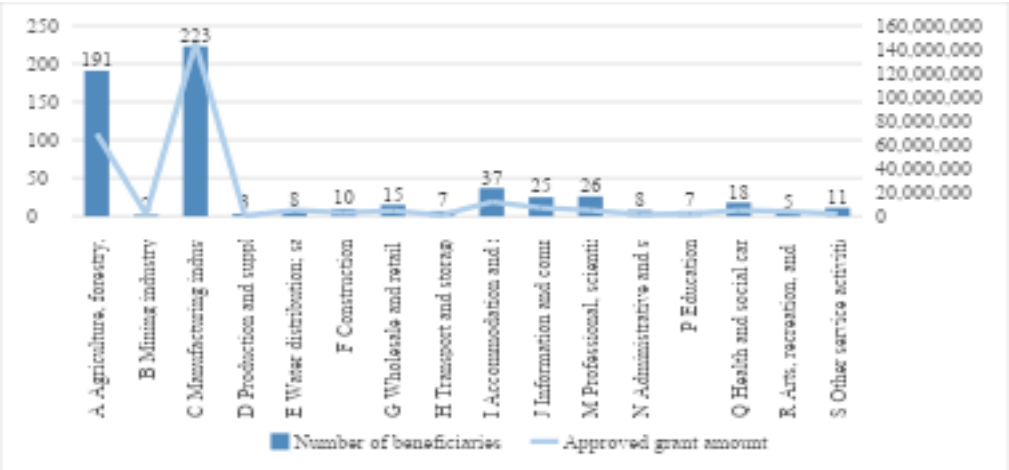


Figure 2. Sectoral distribution of beneficiaries and grants approved in 2023
Source: prepared by the author based on IP ODA, 2024

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

In this regard, the manufacturing industry (section C, according to CAEM-2) proved to be the main beneficiary of the non-repayable financing programs implemented by IP ODA in 2023. According to official statistics, section C recorded 223 grant beneficiaries, with a total amount of approved grants of 145.221.098 lei.

At the same time, Figure 2 shows that the manufacturing industry accounts for over one-third of all beneficiaries – 37.42% and over half of the total volume of non-repayable funds allocated – 53.60% at the national level. Therefore, the industrial sector has absorbed more funds than all other sectors, highlighting its strategic nature in non-repayable financing policy and its priority in public economic development policies, due to its potential to generate added value, create jobs, and multiply investments.

To better understand the position of the manufacturing sector, it is useful to compare it with other sectors that benefited from non-repayable financing in 2023. Statistical information presented by IP ODA (2024) for 2023 shows that the next sector in terms of approved grant volume is section *A „Agriculture, forestry, and fishing"* which had 191 beneficiaries and 69,426,788 lei in approved grants. Despite being the second most important sector in financial terms, it received less than half of the amount allocated to the manufacturing industry. Other sectors received considerably smaller amounts of funding. For example, in the services sector, section *I „Accommodation and food service activities"* had 37 beneficiaries with grants totaling 12,182,850 lei, and section *J „Information and communications"* had 25 beneficiaries for 7,067,718 lei. At the same time, many sectors (construction, transport, administrative services, etc.) had fewer than 10 beneficiaries each, with total grants amounting to one or several million lei.

In summary, entities in the manufacturing industry benefited, on average, from larger grants than most other sectors. The average grant per beneficiary in the manufacturing industry was 651,216 lei, compared to 363,491 lei in agriculture (section A), 329,266 lei in the hotel sector (section I), and 282,709 lei in the communications sector (section J). In order to outline how non-repayable financing is reflected in the financial performance of beneficiary entities, it is relevant to analyze concrete data from the manufacturing sector. Based on Figure 1, it was found that *the Program for the Retrofitting and Energy Efficiency of Small and Medium-Sized Enterprises* had the highest number of beneficiaries at the national level, reflecting a priority area for funding.

In support of this strategic orientation, point 34 of Government Decision No. 515 of July 22, 2022 specifies the performance indicators of the *Program for the Retrofitting and Energy Efficiency of Small and Medium-Sized Enterprises* and highlights the objectives pursued by the authorities through the financial support provided. The performance indicators defined in the program analyzed include aspects that are essential for the analysis carried out in this paper, given that they target key aspects of economic and financial performance. Thus, the program provides for the following (Government of the Republic of Moldova, 2022): *„at least 60% of beneficiaries will see an increase in financial performance"* and *„at least 50% of beneficiaries will succeed in optimizing their production costs by replacing outdated equipment with state-of-the-art equipment".* At the same time, results such as (Government of the Republic of Moldova, 2022): *„at least 60% of beneficiaries will see an increase in taxes and fees paid to the national public budget"* and *„at least 60% of beneficiaries will ensure that the average gross monthly salary is at the level of the industry".* As can be seen, the result indicators highlight the program's focus not only on supporting investment but also on strengthening economic profitability and efficiency, aspects that will be evaluated empirically in the following paragraph.

II. THE RELATIONSHIP BETWEEN NON-REPAYABLE FINANCING AND THE FINANCIAL PERFORMANCE OF BENEFICIARY ENTITIES IN THE MANUFACTURING INDUSTRY

For an applied analysis, 10 entities were selected that benefited from the maximum grant under *the Program for the Retrofitting and Energy Efficiency of Small and Medium-Sized Enterprises* in 2023, namely, 2,000,000 lei. *Table 1* below illustrates a series of summary indicators that reflect the main dimensions of the financial performance of the identified sample, with the aim of outlining an interpretative framework for the econometric analysis developed in the following paragraph.

Table 1. Comparative overview of the main economic and financial indicators for a sample of 10 beneficiary entities in the manufacturing industry for the period 2022-2023

No.	Beneficiary entity	Year	Total assets, lei	Equity, lei	Revenue from sales, lei	Net profit, lei
1.	„Sport Motor" SRL	2022	13,935,982	5,204,197	5,277,123	1,841,262
		2023	19,393,964	7,151,996	5,000,031	1,947,799
	Absolute deviation, ±		+5,457,982	+1,947,799	-277,092	+106,537
2.	„DIVUS WINERY LTD" SRL	2022	36,581,393	5,535,997	4,393,535	708,519
		2023	47,051,970	7,892,078	6,060,095	2,356,081

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

	Absolute deviation, ±		+10,470,577	+2,356,081	+1,666,560	+1,647,562
3.	„Biobrichet Grup" SRL	2022	2,966,350	810,447	3,675,253	221,275
		2023	9,458,353	1,677,413	5,549,829	866,966
	Absolute deviation, ±		+6,492,003	+866,966	+1,874,576	+645,691
4.	„Hancost Prim" SRL	2022	3,165,715	1,503,290	5,751,676	349,613
		2023	10,286,009	4,040,254	6,009,112	2,412,610
	Absolute deviation, ±		+7,120,294	+2,536,964	+257,436	+2,062,997
5.	„Industrial Manufacturing Group" SRL	2022	27,434,577	2,804325	34,225,324	700,970
		2023	32,829,975	5,615,635	34,416,556	796,360
	Absolute deviation, ±		+5,395,398	+2,811,310	+191,232	+95,390
6.	SC „Total Gravura" SRL	2022	37,059,137	10,353,442	14,763,190	1,847,786
		2023	37,591,227	10,731,194	18,905,490	1,763,941
	Absolute deviation, ±		+532,090	+377,752	+4,142,300	-83,845
7.	„Termopane De Lux" SRL	2022	42,958,741	23,802,786	68,478,157	4,344,853
		2023	66,223,697	29,226,885	60,877,297	5,424,099
	Absolute deviation, ±		+23,264,956	+5,424,099	-7,600,860	+1,079,246
8.	„Memilit" SRL	2022	43,968,002	19,752,354	26,900,334	262,893
		2023	44,878,426	37,037,041	25,042,409	17,284,686
	Absolute deviation, ±		+910,424	+17,284,687	-1,857,925	+17,021,793
9.	„Unicompro" SRL	2022	53,728,134	33,183,161	83,540,848	13,045,313
		2023	57,359,051	38,568,640	64,623,685	5,385,479
	Absolute deviation, ±		+3,630,917	+5,385,479	-18,917,163	-7,659,834
10.	„Sicom" SRL	2022	10,982,981	4,666,147	11,326,166	2,088,905
		2023	15,353,489	7,666,485	18,318,406	3,000,338
	Absolute deviation, ±		+4,370,508	+3,000,338	+6,992,240	+911,433

Source: prepared by the author based on data from the financial statements of beneficiary entities for the years 2022-2023, available in the Public Depository of Financial Statements

The data in *Table 1* show an overall improvement in the financial position of the 10 beneficiary entities analyzed during the period 2022-2023. All entities increased their total assets and equity in 2023 compared to 2022, due to significant investments and resource accumulation. For example, the entity „Divus Winery Ltd" SRL increased its assets by 10,470,577 lei in 2023 and its equity by 2,356,081 lei, indicating a consolidation of its asset base and financial autonomy. The general upward trend in total assets across the entire sample suggests that entities used non-repayable funding to expand or modernize their capacities, which is reflected in the balance sheet through higher asset values.

At the same time, the evolution of sales revenue and net profit indicates, in most cases, an improvement in financial performance in 2023. Six out of ten entities recorded increases in sales revenue, confirming a positive trend in commercial activity after financing. It should be noted that „Biobrichet Grup" SRL recorded an increase in sales of 1,874,576 lei or 51.01% compared to 2022, and „Sicom" SRL recorded an increase of 6,992,240 lei, or 61.74% more than the previous year, suggesting increased demand and expanded production capacity.

However, there are also situations of moderate decline in sales revenues for some entities, such as „Sport Motor" SRL, which recorded a 5.25% decrease in this indicator compared to the previous year, and „Unicompro" SRL recorded a more pronounced decrease in sales revenue, by 22.64% compared to 2022. Even so, net profit increased predominantly across the sample, with eight out of ten entities achieving higher profits in 2023. For example, the entity „Hancost Prim" SRL almost quadrupled its net profit in 2023 (from 349,613 in 2022 to 2,412,610 lei), while „Biobrichet Grup" SRL and „Divus Winery Ltd" SRL increased their net profits more than threefold, by 645,691 lei and 1,647,562 lei, respectively. The developments highlighted indicate a substantial increase in profitability, in line with the hypothesis regarding the positive influence of grants on economic and financial performance. The case of „Memelit" SRL stands out due to an exceptional increase in net profit, from 262,893 lei in 2022 to 17,284,686 lei in 2023. However, this deviation is not solely the result of operational improvements, but is due to exceptional non-recurring income.

On the other hand, two out of ten entities recorded a decrease in net profit. For example, SC „Total Gravura" SRL reported an insignificant decrease in net profit in 2023, by 4.54% compared to 2022, despite an increase in sales revenue of 28.06% in 2023, which indicates an increase in administrative and financial expenses during the period analyzed. Similarly, „Unicompro" SRL recorded a considerable decrease in net profit, by 7,659,834 lei compared to 2022, in the context of a decrease in sales revenue of 18,917,163 lei and an increase in administrative expenses of 893,161 lei in 2023, which indicates that the positive impact of grants was not uniform for all beneficiaries. In general, most of the entities analyzed experienced both an increase in sales revenue and profit,

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

suggesting increased efficiency and a better ability to generate earnings after accessing non-repayable funding.

Comparing the main economic and financial indicators of the 10 selected entities, it can be seen that non-repayable financing had a positive impact on their financial performance. In general, the financial results for 2023 confirm expectations that grants support the development of manufacturing entities. For most entities, investments made with the help of funding resulted in the modernization of production capacities and the streamlining of operational processes, contributing to a more productive use of existing resources.

III. EVOLUTION OF THE PROFITABILITY OF BENEFICIARY ENTITIES: AN ECONOMETRIC ANALYSIS OF THE IMPACT OF GRANTS IN THE MANUFACTURING INDUSTRY

Profitability is one of the most relevant expressions of economic and financial performance, reflecting the entity's ability to transform the resources used into positive economic results. In the current economic context, profitability analysis takes on strategic importance in assessing the sustainability of entities' activities. For SMEs in the manufacturing industry that benefited from non-repayable financing in 2023, profitability dynamics can be an indicator of the effectiveness of public intervention and the return on investments made. Rates of return are essential tools in assessing the efficiency of resource use and the ability of entities to generate added value. Thus, analyzing their evolution reflects a relevant measure of performance in the period following access to non-repayable financing.

To assess the impact of grants obtained in 2023 through *the Program for the Retrofitting and Energy Efficiency of Small and Medium-Sized Enterprises*, three benchmarks were selected: return on assets, return on equity, and return on sales. The rates were calculated based on data from the financial statements submitted to the NBS for 2022-2023 by the 10 entities analyzed, comparing 2022 (before financing) with 2023 (after financing). In order to visually illustrate the distribution and evolution of each entity's profitability, comparative graphs will be analyzed for the indicators analyzed, broken down by year for 2022-2023. Therefore, *Figure 3* shows the evolution of return on assets for each beneficiary entity.

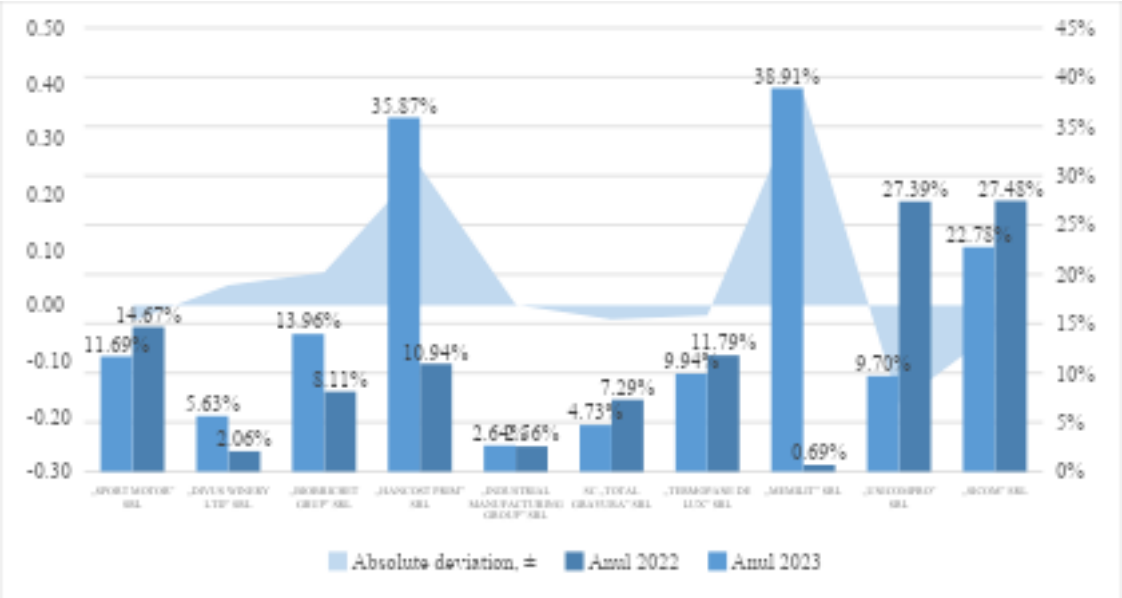


Figure 3. Evolution of the return on assets of beneficiary entities in the manufacturing industry in 2022-2023
Source: prepared by the author based on data from the financial statements of beneficiary entities for 2022-2023, available in the Public Depository of Financial Statements

The data in *Figure 3* shows that most entities had a higher return on assets after the investment, with the exception of five out of ten entities, where asset performance declined in 2023. For example, the entities „Hancost Prim" SRL and „Memilit" SRL recorded significant increases in asset utilization efficiency, indicating that the investments made through grants were effectively targeted and generated rapid results. The entities „Unicompro" SRL and „Sport Motor" SRL recorded decreases in profitability, which may indicate a delay in the return on investment or other contextual factors that negatively influenced their performance. Overall, the graph shows a heterogeneous distribution of the effects of grants on the profitability of entities, but there are more cases where the return on assets increased after the financial support was granted, suggesting a positive economic impact of non-repayable funding on the ability of entities to generate profit from the total resources used.

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

In the same vein, Figure 4 shows the evolution of return on equity for each entity receiving non-repayable funding. Thus, there is a predominantly positive trend in the level of return on equity for most entities, in particular for the entities „Memilit" SRL and „Hancost Prim" SRL, which recorded significant increases in the analyzed indicator, reflecting an efficient use of own resources through financially supported investments.

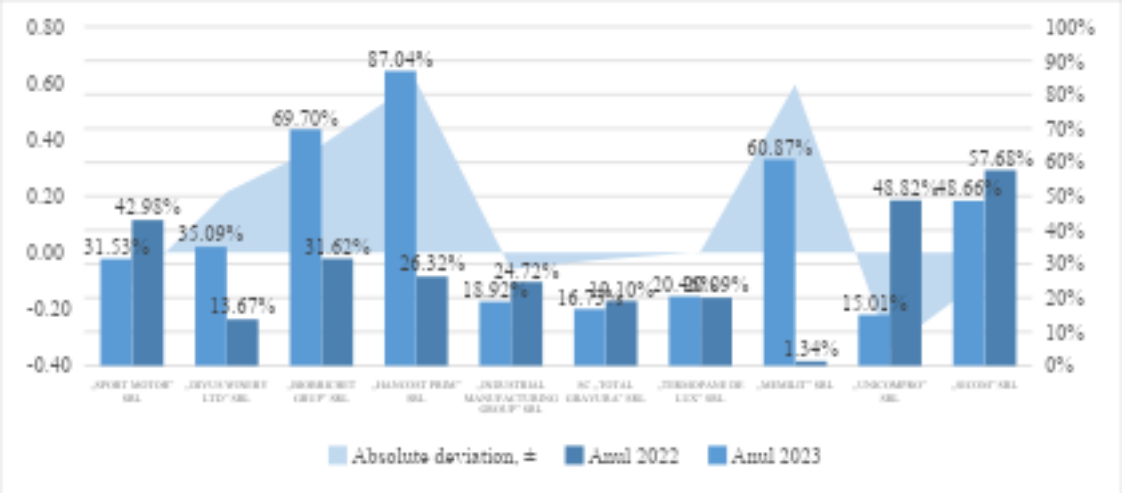


Figure 4. Evolution of the return on equity of beneficiary entities in the manufacturing industry in 2022-2023
Source: prepared by the author based on data from the financial statements of beneficiary entities for 2022-2023, available in the Public Depository of Financial Statements

On the other hand, „Unicompro" SRL and „Sport Motor" SRL experienced a significant reduction in profitability, indicating a decline in profitability, but also an increase in the capital base at a faster rate than the results achieved. Consequently, *Figure 4* confirms that grants had a favorable effect on return on equity in most cases, but, similarly to return on assets, there is a different degree of response to the intervention depending on each entity. This economic situation suggests that the post-intervention financial result is also influenced by internal factors, such as reinvestment strategy, financing structure, or managerial efficiency.

Next, *Figure 5* shows the evolution of sales revenue profitability for each entity analyzed, providing a comparative perspective on performance before and after financing.

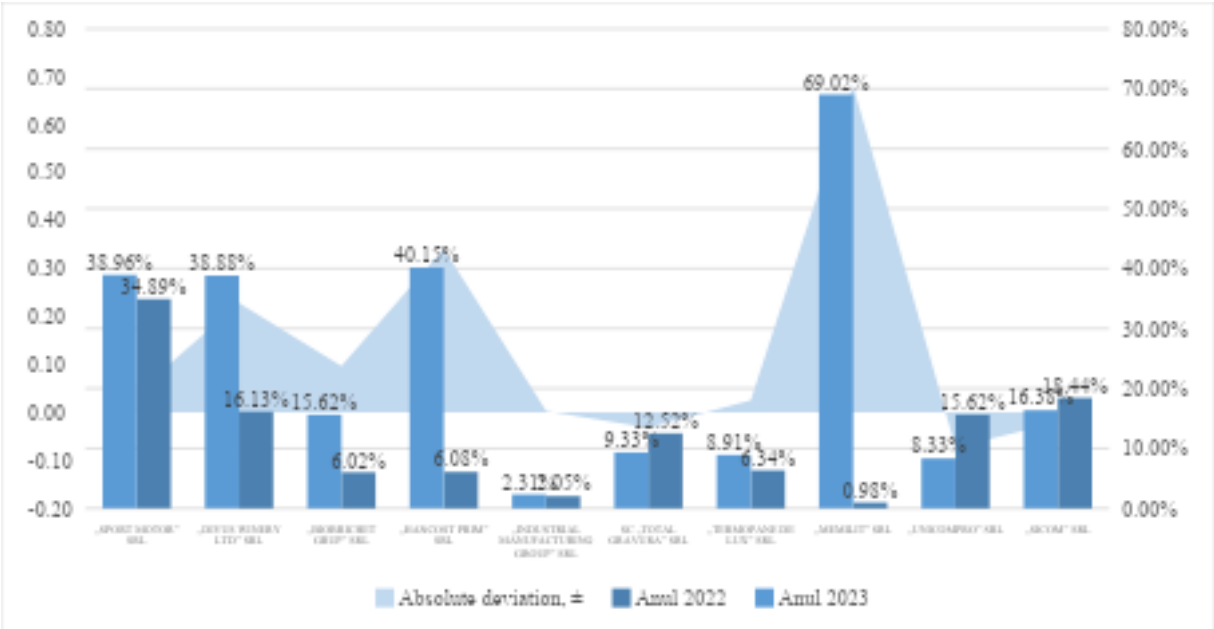


Figure 5. Evolution of the profitability of sales revenues of beneficiary entities in the manufacturing industry in 2022-2023
Source: prepared by the author based on data from the financial statements of beneficiary entities for 2022-2023, available in the Public Depository of Financial Statements

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

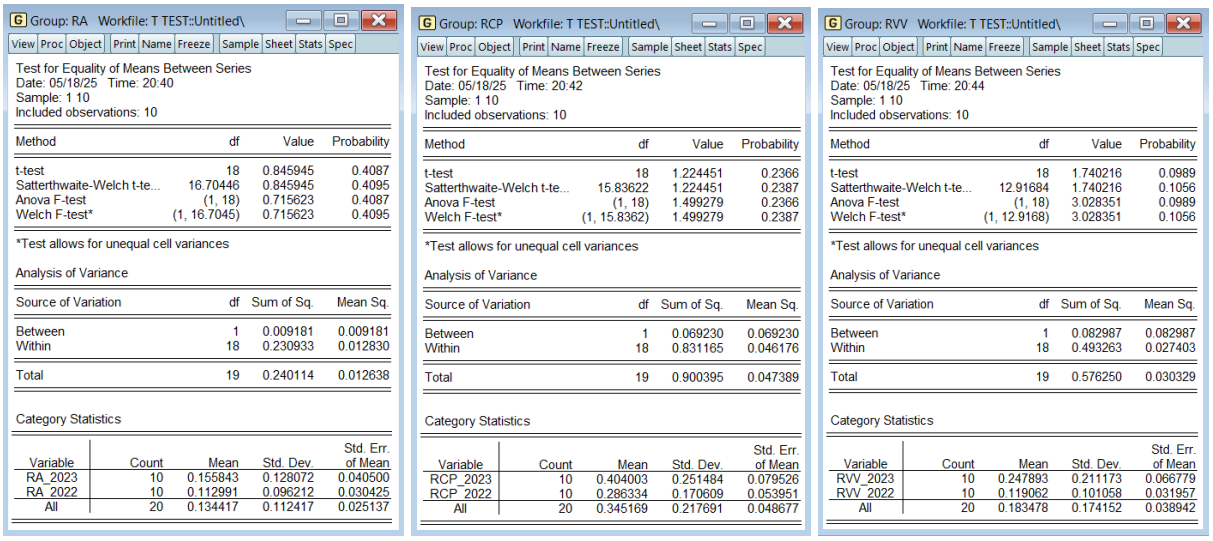
Unlike return on assets and return on equity, return on sales recorded the most pronounced average increase in the sample, suggesting a visible improvement in the operational efficiency of the beneficiary entities.

Therefore, Figure 5 highlights the significant increase in the indicator for the entities „Memilit" SRL and „Hancost Prim" SRL, by 68,04 p.p. and 34,07 p.p., respectively, in 2023, mainly due to the optimization of the cost of sales. Although most of the entities analyzed followed this upward trend, in the case of „Unicompro" SRL and SC „Total Gravura" SRL, the level of return on sales decreased by 7,28 p.p. and 3,19 p.p., due to cost pressures and a decrease in sales volume, respectively.

Overall, Figure 5 outlines the most coherent visual argument in favor of a positive impact of grants on operational profitability, confirming that sustained investments from public funds can contribute significantly to strengthening financial results. In summary, the descriptive analysis of the evolution of profitability rates reveals a general trend of improvement in financial performance in 2023, with significant variations from one entity to another.

To complement this empirical analysis and determine whether the differences identified are statistically significant, a before-after statistical model was applied to compare the profitability indicators of each entity analyzed in the year preceding the grant with the indicators from the year of intervention. Given that all entities in the sample received funding, with no comparable control group, the model used is pre-experimental, based on a comparison of indicators before and after the grant was awarded. In assessing the statistical significance of the differences recorded in profitability indicators, the Student's t-test was applied to paired samples.

The method allows the analysis of the same sample of entities at two successive points in time, examining the average differences between 2022 and 2023. The empirical analysis was performed using EViews 12 Student Lite software, using data on the main profitability indicators for a sample of 10 beneficiary entities in the manufacturing industry in the period 2022-2023. In order to illustrate how the Student's t-test is applied to paired samples and the form of the results generated using EViews 12, *Figure 6* reflects the results obtained after applying the Student's t-test to the profitability of assets, equity, and sales revenue, as follows:



Group: RA Workfile: T TEST::Untitled\

Test for Equality of Means Between Series
Date: 05/18/25 Time: 20:40
Sample: 1 10
Included observations: 10

Method	df	Value	Probability
t-test	18	0.845945	0.4087
Satterthwaite-Welch t-te...	16.70446	0.845945	0.4095
Anova F-test	(1, 18)	0.715623	0.4087
Welch F-test*	(1, 16.7045)	0.715623	0.4095

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.009181	0.009181
Within	18	0.230933	0.012830
Total	19	0.240114	0.012638

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
RA_2023	10	0.155843	0.128072	0.040500
RA_2022	10	0.112991	0.096212	0.030425
All	20	0.134417	0.112417	0.025137

Group: RCP Workfile: T TEST::Untitled\

Test for Equality of Means Between Series
Date: 05/18/25 Time: 20:42
Sample: 1 10
Included observations: 10

Method	df	Value	Probability
t-test	18	1.224451	0.2366
Satterthwaite-Welch t-te...	15.83622	1.224451	0.2387
Anova F-test	(1, 18)	1.499279	0.2366
Welch F-test*	(1, 15.8362)	1.499279	0.2387

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.069230	0.069230
Within	18	0.831165	0.046176
Total	19	0.900395	0.047389

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
RCP_2023	10	0.404003	0.251484	0.079526
RCP_2022	10	0.286334	0.170609	0.053951
All	20	0.345169	0.217691	0.048677

Group: RVV Workfile: T TEST::Untitled\

Test for Equality of Means Between Series
Date: 05/18/25 Time: 20:44
Sample: 1 10
Included observations: 10

Method	df	Value	Probability
t-test	18	1.740216	0.0989
Satterthwaite-Welch t-te...	12.91684	1.740216	0.1056
Anova F-test	(1, 18)	3.028351	0.0989
Welch F-test*	(1, 12.9168)	3.028351	0.1056

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.082987	0.082987
Within	18	0.493263	0.027403
Total	19	0.576250	0.030329

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
RVV_2023	10	0.247893	0.211173	0.066779
RVV_2022	10	0.119062	0.101058	0.031957
All	20	0.183478	0.174152	0.038942

Figure 6. Result of the Student's t-test for paired samples in the comparative analysis of profitability indicators for the period 2022-2023

Source: prepared by the author based on calculations performed in EViews 12, using data from the financial statements of beneficiary entities for the years 2022-2023, available in the Public Depository of Financial Statements

The statistical results obtained after applying Student's t-tests for paired samples, as shown in Figure 6, are summarized in *Table 2.*

Table 2. Results of the t-test applied to profitability indicators for the sample of 10 beneficiary entities in the manufacturing industry in the period 2022-2023

No.	Indicators	Average for 2022	Average for 2023	Average difference, ±	t-statistic	p-value
1.	Return on assets, %	11,30%	15,58%	+4,29	0,8459	0,4087
2.	Return on equity, %	28,63%	40,40%	+11,77	1,2244	0,2366

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

3.	Return on sales revenue, %	11,91%	24,79%	+12,88	1,7402	0,0989

Source: prepared by the author based on calculations performed in EViews 12, using data from the financial statements of beneficiary entities for the years 2022-2023, available in the Public Depository of Financial Statements

At the aggregate level, profitability indicators show an average improvement in 2023 compared to 2022. The Student's t-test for paired samples allows us to verify whether the average increases are statistically significant or not, beyond random fluctuations.

There is an average increase in return on assets of 4.29 p.p., from 11.30% in 2022 to 15.58% in 2023. However, the statistical value t obtained is relatively small, around 0.85, and the associated probability of 0,42 is high for the conventional significance level of 0.05. These results indicate that the difference found is not statistically significant, and the null hypothesis (according to which there is no average difference between years) cannot be rejected. Despite the average increase in return on assets in the two periods analyzed, the statistical test applied does not provide sufficient evidence to conclude that this development is a direct consequence of the grants.

In terms of return on equity, the average indicator increased by 11.77 p.p., from 2.63% in 2022 to 40.40% in 2023. The t-test generated a value of 1.224, with a p-value of 0.2366. Even though this variation is more pronounced than in the case of return on assets, it cannot be statistically stated that the average return on equity post-financing differs significantly from that pre-financing, as the result is not statistically strong enough to reject the null hypothesis at a 95% confidence level. Therefore, the positive evolution of return on equity, observable in descriptive terms, is not supported by the significance test, suggesting that it may be the result of endogenous contextual factors, and not necessarily of the intervention through grants.

The return on sales recorded the most significant increase compared to all the indicators analyzed, reaching 24.79% in 2023, 12.88 p.p. more than in 2022. The statistical value t is 1,7402 and the p-value is 0.0989, which indicates a moderate level of significance, between 0,10 and 0,05. In this case, the difference is close to statistical significance, but remains at the lower limit of the confidence level. Consequently, even if this difference is not significant at the strict 5% threshold, it can be considered significant at a 90% confidence level, suggesting that the grants may have had a real positive effect on operational profitability. Therefore, in the case of return on sales revenue, the analysis provides the strongest indication of an actual post-intervention improvement.

Despite the fact that profitability indicators increased in 2023, the statistical values obtained (low t-statistics and p-values greater than 0.05) show that these differences are not statistically significant at a 95% confidence level. Thus, applying the t-test for paired samples added value to the analysis by providing an objective verification of the research hypothesis. By applying the t-test, it was found that, within the limits of the analyzed sample, the impact of non-repayable funding on profitability is not confirmed at a high level of statistical significance, partially confirming the expectation of a consistent increase in profitability. Even though not all differences were statistically significant, the positive direction observed at the level of averages indicates a beneficial effect of the intervention in 2023.

Following the comparative analysis based on the Student's t-test for paired samples, a simple linear regression econometric model of the before-after type was formulated in order to estimate the average effect of non-repayable financing on the profitability of beneficiary entities within *the Program for the re-engineering and energy efficiency of small and medium-sized enterprises*. The regression model expresses the average difference in profitability indicators in a formal, parametric form, using the coefficient β_1, which can be interpreted as the estimated average effect of grants on profitability, according to the functional relationship:

$$Y_i = \beta_0 + \beta_1 * X_i + \varepsilon_i \quad (1)$$

where:

Y_i – dependent variable indicating the value of the profitability indicator for observation i in the period before and after the grant was awarded;

X_i – the independent variable describing the period or before-after treatment (it has a value of 0 for observations from the period prior to receiving the grant and a value of 1 for observations from the period after receiving the grant);

β_0 – the intercept or average value of profitability when $X_i = 0$ (reference period, before the grant was awarded);

β_1 – the slope or regression coefficient that measures the average change in profitability associated with the transition before and after receiving the grant, representing the average effect of the grant on profitability (the difference between the averages before and after receiving it);

ε_i – error term that combines unobserved factors influencing profitability for observation i.

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

This model provides two key pieces of information: the average return before the grant (β_0) and the average change due to the grant (β_1). Given that the explanatory variable X_i is binary (0/1), the interpretation of the coefficients becomes intuitive:

1. $X_i = 0$ (before receiving the grant), the estimated value of the indicator is $\hat{Y}_i = \beta_0$, which corresponds to the average level of profitability before the grant was awarded;
2. $X_i = 1$ (after receiving the grant), the estimated value is $\hat{Y}_i = \beta_0 + \beta_1$, which indicates the average level of profitability after the grant is awarded.

Therefore, the β_1 coefficient expresses the average difference between the indicator values in the period before and after financing, i.e., the estimated average effect of the grant on profitability. Its value and statistical significance are essential to validate the hypothesis that *non-repayable financing has positively influenced the financial performance of the entities analyzed.*

For the practical application of the simple linear regression model, estimates were made using EViews 12 software for the three profitability indicators analyzed separately. Given that only the estimated coefficient for the profitability of sales revenue was the only one with an acceptable level of statistical significance ($p < 0.10$), *Figure 7* shows the result generated by EViews 12 for this model. For the other two profitability indicators, the results are summarized in *Table 3*, as no statistically significant coefficients were found.

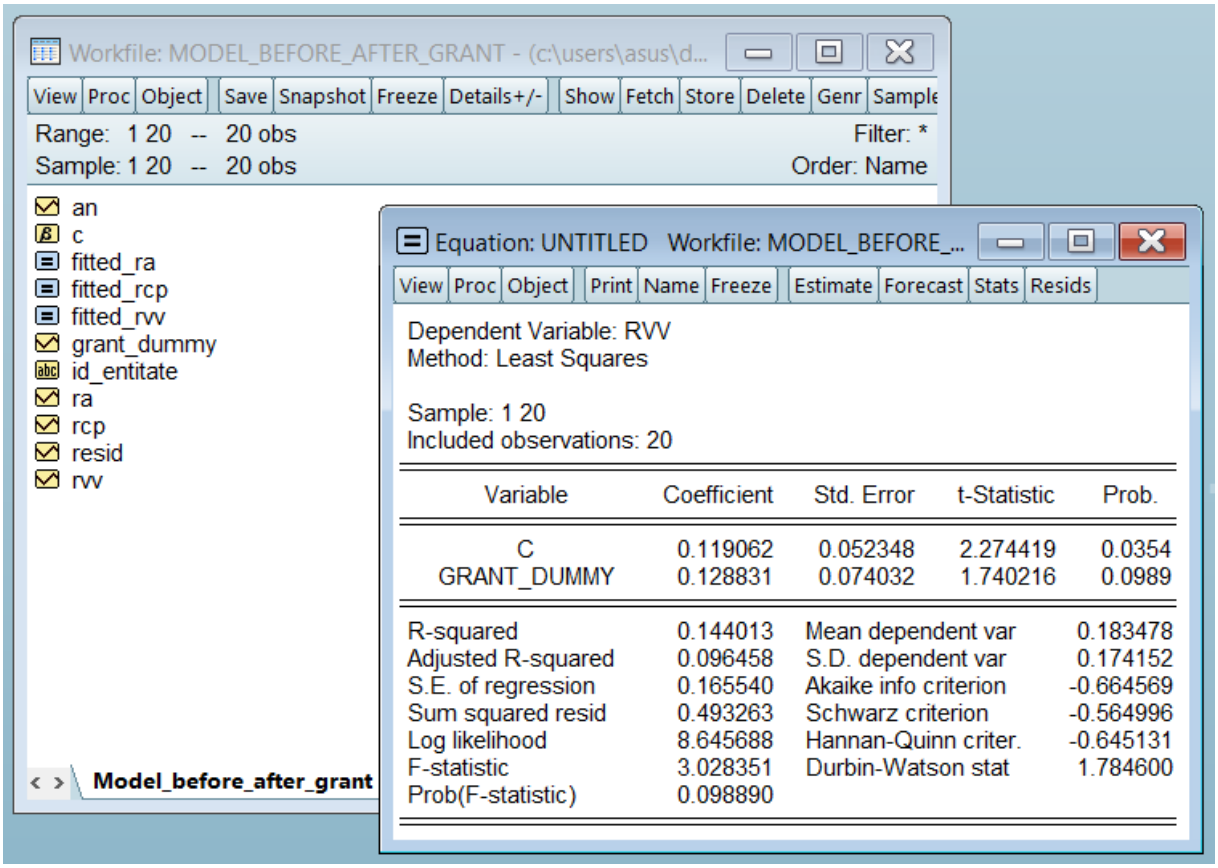


Figure 7. Estimation of β_1 coefficients for return on sales revenue in EViews 12 software
Source: developed by the author based on calculations performed in EViews 12

Therefore, Table 3 presents, in a comparative form, the estimated coefficients (β_0 și β_0), the p and R^2 values obtained after applying the econometric model for each indicator:

Table 3. Results of the regression coefficient estimation for the before-after model

No.	Indicators	β_0	β_1	R^2	Statistical significance
1.	Return on assets, %	11.30%	+4.29 p.p.	3.77%	Insignificant, $p > 0.05$
2.	Return on equity, %	28.63%	+11.77 p.p.	7.68%	Insignificant, $p > 0.05$
3.	Return on sales revenue, %	11.91%	+12.88 p.p.	14.40%	Significant

DOI: 10.4316/EJAFB.2025.14104

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

					at the 10% level, 0.05 > p < 0.10

Source: developed by the author based on calculations performed in EViews 12

Table 3 presents the estimates of the regression coefficients for the before-after model applied to each profitability indicator. The β_1 coefficient associated with the dummy variable corresponding to non-repayable financing measures the average difference in profitability between 2023 and 2022, being interpreted as the estimated average effect of the grant on financial performance.

In the case of return on assets, the coefficient β_1 = 0.0429 suggests an average increase of 4.29 p.p. following the intervention. However, the associated p-value (p = 0.4087) is much higher than the significance threshold of 0,05, which means that the difference is not statistically significant. Similarly, the coefficient β_1 for return on equity is 0.1177, or 11.77 p.p. following the receipt of grants, but this is also accompanied by a high p-value (p = 0,2366), which excludes statistical significance at the conventional 5% level.

The only indicator that records a statistically significant β_1 coefficient is the return on sales revenue, for which the estimate indicates an increase of 12.88 p.p. in 2023. The p-value (p = 0.0989) is between 0.05 and 0.10, which allows us to conclude that the effect of grants is significant at a 90% confidence level. Therefore, this indicates a possible causal link between non-repayable financing and improved profitability of beneficiary entities.

In addition to the regression coefficients, the coefficient of determination R^2 is a standard indicator in econometric analysis, calculated automatically after estimating the model in EViews 12, which provides additional information on the extent to which the variation in the profitability indicator is explained by the model. Consequently, the analysis of the coefficient values reveals a low level of explanatory power of the applied models. In terms of return on assets and return on equity, the values of 3.77% and 7.68%, respectively, indicate that the independent variable (X_i) (explains the variation of Y_i) determines to a limited extent the fluctuations in return during the period analyzed. Even though the β_1 coefficients are positive, the low R^2 values indicate that there are other significant factors influencing profitability that are not included in the model.

In the case of return on sales, R^2 = 14.40% and reflects the highest value obtained, indicating that the model manages to explain the variation of this indicator to a greater extent. Although it is not a strong relationship, the value exceeds the minimum threshold of 10%, frequently used in empirical research for small samples, which provides an additional argument for the partial validation of the effect of grants on operational profitability. In this sense, the econometric model provides evidence in favor of a moderate and positively directed correlation, although the overall influence of the grant on financial performance is not dominant.

IV. CONCLUSION

In summary, non-repayable financing is an essential economic policy tool with the potential to support the financial performance of entities, particularly by facilitating investment, reducing debt levels, and increasing profitability. However, the effectiveness of this form of support depends on the alignment of funds with the entity's actual objectives and on the managerial capacity to implement and monitor projects.

The results obtained from the descriptive analysis, the application of the t-test for paired samples, and the simple linear regression model indicate a general trend toward improved profitability among beneficiary entities. The indicators analyzed recorded average increases in the year of intervention, reflecting a consolidation of economic and financial performance at the sample level. The results obtained do not confirm the statistical significance of the average differences at a 95% confidence level, whic limits the validation of the hypothesis regarding the direct impact of grants. However, the positive direction of developments shows the existence of a favorable relationship between public intervention and the level of profitability.

In conclusion, even though the statistical results do not allow for a categorical conclusion regarding causality, the data analyzed supports the idea that non-repayable financing played a catalytic role in optimizing financial performance, contributing to improved efficiency in the use of assets, equity, and operational profitability.

The analysis provides a framework for understanding the relationship between non-repayable financing and financial performance. However, there are favorable premises that can serve as a useful basis for further developments, namely: expanding the sample would allow for more statistically robust results by increasing the power of the tests applied, introducing a control group would transform the pre-experimental model into a quasi-experimental one experimental model, strengthening the validity of the conclusions, and the integration of control variables into a multiple regression model would allow for a more in-depth causal analysis.

ACKNOWLEDGEMENT: This paper was presented and supported within the International Student Competition "Performance in Economic Education – Students Shape Tomorrow's Economy!", Edition 1, organized under the

Volume **14** / **2026** ISSN 2344-102X
Issue **1** ISSN-L 2344-102X

project "Links between Theory and Practice in Cross-border Education Romania–Ukraine" (LINKSROUACBE), ID HUSKROUA/23/RS/3.1/043. "This material was produced with the financial support of the European Union. Its contents are the sole responsibility of the lead partener and do not necessarily reflect the views of the European Union."

REFERENCES

1. Constantinescu, D., Nistorescu, T., & Tumbăr, C. (2006). *Business economics.* Craiova, Romania: Sitech Publishing House.
2. Covali, O., & Cosmulese, C. G. (2020). Estimation of the financial-fiscal control effectiveness degree in Moldova. European Journal of Accounting, Finance & Business, 8(2). DOI: 104316/EJAFB.2020.824
3. Covali, O., Cosmulese, C. G., & Grosu, V. (2020). A brief analysis of the methods to determine the efficiency of financial-fiscal control. European Journal of Accounting, Finance & Business, 13(23). DOI: 104316/EJAFB.2020.828
4. Epure, D. T. (2005). *Business expansion and the business environment.* Constanța, Romania: Ex Ponto Publishing House.
5. Federal Ministry of Finance. (2015). Institute for Development and Social InitiativesBiblioteca IDIS „Viitorul". (2015). *Financing small and medium-sized enterprises in the Republic of Moldova: problems, trends, and prospects (II).* Chișinău, Republic of Moldova: FEP „Tipografia Centrală".
6. GoM (2022). Government Decision No. 487 of July 13, 2022, on the organization and functioning of the Public Institution Organization for Entrepreneurship Development. Official Gazette of the Republic of Moldova. Retrieved from https://www.legis.md/cautare/getResults?doc_id=135927&lang=ro.
7. GoM. (2022). Government Decision No. 348 of 01.06.2022 on the approval of the Program „Start fFor Youth: a sustainable business at home". Official Gazette of the Republic of Moldova. Retrieved from https://www.le gis. md/cautare/getResults?doc_id=135236&lang=ro.
8. GoM. (2022). Government Decision No. 515 of 22.07.2022 on the approval of the Program for the re-engineering and energy efficiency of small and medium-sized enterprises. Official Gazette of the Republic of Moldova. Retrieved from https://www.legis.md/cautare/getResults?doc_id=139539&lang=ro.
9. GoM. (2022). Government Decision No. 622 of 07.09.2022 on the approval of the Program for attracting remittances into the economy „PARE 1+2". Official Gazette of the Republic of Moldova. Retrieved from https://www.leg is.md/cautare/getResults?doc_id=139537&lang=ro.
10. GoM. (2022). Government Decision No. 90 of 28.02.2023 on the approval of the Government Action Plan for 2023. Official Gazette of the Republic of Moldova. Retrieved from https://www.legis.md/cautare/getResults?doc_id =136209&lang=ro.
11. GoM. (2022). Government Decision No. 89 of 28.02.2023 approving the National Development Plan for 2023-2025. Official Gazette of the Republic of Moldova. Retrieved from https://www.legis.md/cautare/getResults?doc_id= 136163&lang=ro.
12. Grigoroi, L., Lazari, L., Bîrcă, A., Ghedrovici, O., Gherasimov, M., Mihailă, S., Erhan, L., Badicu, G., Bajan, M., Țurcan, L., Gudima, G., & Țurcanu, L. (2021). Contabilitatea întreprinderii: Manual. Chișinău, Republic of Moldova: Cartier Publishing House.
13. Grigoroi, L., Lazari, L., Bîrcă, A et al. (2021). *Company Accounting.* Chișinău, Republic of Moldova: Cartier Publishing House.
14. Grosu, V., Prindii, S. I., & Sandulachi, A. M. (2018, March 15). Risk factors in the evaluation of investments made by companies in the construction industry. In *International Scientific Conference „Accounting challenges in the view of young researchers":* collection of scientific papers, 2nd edition, Chisinau, Republic of Moldova, 163-177. Retrieved from https://api.dspacecris.ase.md/server/api/core/bitstreams/c30e9478-7e84-4bcc-b41d-7d568cb318e1/content.
15. Hoanță, N. (2003). *Company finances.* Bucharest, Romania: Editura Economică Publishing House.
16. IP ODA. (2024). Statistical information on the number of beneficiaries and financial support granted under the Programs implemented by the Public Institution Organization for Entrepreneurship Development for the yearin 2023. Retrieved from https://www.oda.md/files/rapoarte/2023/Informa%C8%9Bia%20statistic%C4%83 %20privind%20Programele%20IP%20ODA,%20anul%202023.pdf.
17. Ministry of Economic Development and Digitalization. (2023). Activity plan of the Ministry of Economic Development and Digitalization for 2023. Retrieved from https://old.mded.gov.md/sites/default/files/planul_de_activitate_mded_2023_versiune_finala_2.pdf.
18. Mironiuc, M. (2018). *Scientific foundations of financial and accounting management of enterprises.* Iași, Romania: Alexandru Ioan Cuza University Press.
19. National Bureau of Statistics (NBS). (2024). Activity of small and medium-sized enterprises in 2023. Retrieved from https://statistica.gov.m d/ro/activitatea-intreprinderilor-mici-si-mijlocii-in-anul-2023-9557_61414.html.
20. Parliament of the Republic of Moldova. (2022). Law No. 315 of 17.11.2022 approving the National Development Strategy „European Moldova 2030". Official Gazette of the Republic of Moldova. Retrieved from https://www.legis.md/cautare/getResults?doc_id=13 4582&lang=ro.
21. Vasile, I. (1997). *Financial management of the enterprise.* Bucharest, Romania: Didactic and Pedagogical Publishing House.
22. Zlati, M. L., Mihaila, S., & Grosu, V. (2022). Financial performance analysis from a social welfare perspective - a comparative study Romania-Moldova. *Eastern European Journal for Regional Studies (EEJRS)*, 8(1), 63–76, http://dx.doi.org/10.53486/ 2537-6179.8-1.05.