

FINANCIAL INDICATORS FOR THE IMPLEMENTATION OF AN EUROPEAN FUNDED INVESTMENT PROJECT UNDER SOP IEC PROGRAMME – CASE STUDY OF A ROMANIAN SME

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The European Integration came with new challenges for the Romanian enterprises especially for the SMEs, the opportunities arising from operating on the European Single Market and the possibility for accession of European Regional Development Funds. The main programme designed to offer access for small, medium and large Romanian enterprises to European funding is the Sectorial Operational Programme “Increase of Economic Competitiveness”- SOP IEC. This paper will analyze the area of intervention “D1.1. Productive and environment friendly investments and preparation for market competition in which Romanian SMEs” are competing to access European funding in order to develop their activities or to extend them into new ones. One of the main challenges for these SMEs is to generate, fulfil and to respect the financial indicators of the programme, which are part of the financial analysis of the project.

Key words: Financial Analysis, Cost benefit Analysis, European Union, Financial Simulation, Structural Funds, SOP IEC

The article’s JEL code: D61, D92, O22, G38, O19, F36

1. Introduction

The European Integration came with new challenges for the Romanian enterprises especially for the SMEs, the opportunities arising from operating on the European Single Market and the areas eligible for the European Regional Development Funds (Droj, 2009). The Sectorial Operational Programme “Increase of Economic Competitiveness” (further referred to as SOP IEC) is one of the seven instruments (Operational Programs), which offer the financial support for the consolidation and modernization of productive sector through investments. The SOP IEC aims to strengthen the strategic focus of the Economic and Social Cohesion policies across Romania, and to make the correct and appropriate linkages to the European policies and the Lisbon Strategy for growth and job creation.

The **general objective** of SOP is the increase of Romanian companies’ productivity, in compliance with the principle of sustainable development, and to reduce the disparities compared to the average productivity of the European Union (Guvernul României, 2009). The target is an average annual growth of GDP per employed person by about 5.5%. This will allow Romania to reach an approximate of 55% of the EU average productivity by 2015.

The specific objectives of the SOP “Increase of Economic Competitiveness” are:

- Consolidation and environment-friendly development of the Romanian productive sector,
- Establishment of a favorable environment for sustainable enterprises’ development,
- Increase of the R&D capacity, stimulation of the cooperation between RDI institutions and enterprises, and increase of enterprises’ access to RDI
- Valorization of the IC&T potential and its application in the public (administration) and private sector (enterprises, citizens)
- Increased energy efficiency and sustainable development of the energy sector

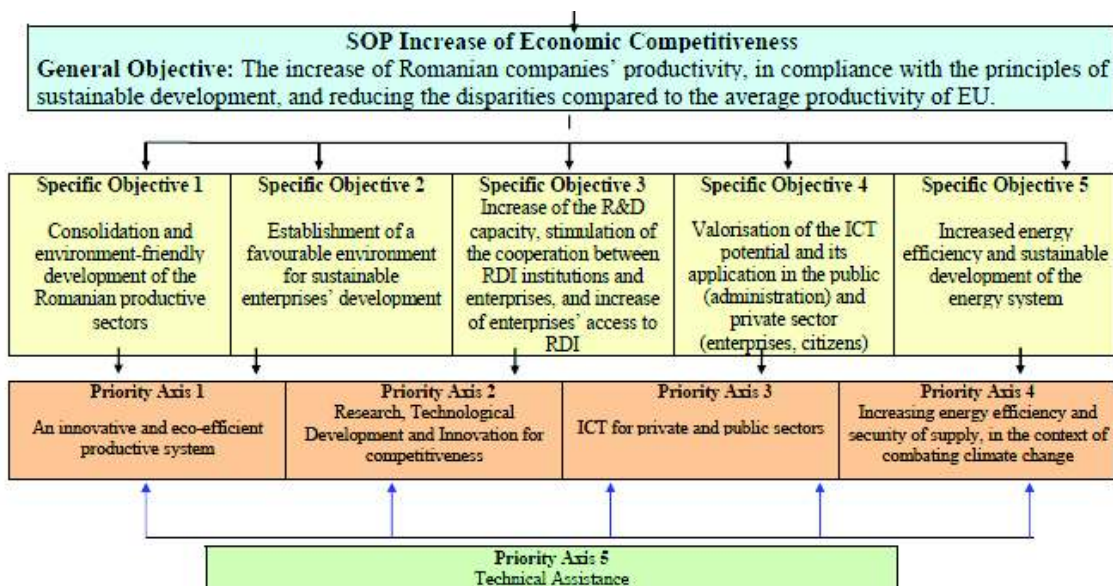


Figure 1. SOP Increase of Economic Competitiveness

(Extracted and adapted from the *Framework Document - Sectorial Operational Programme "Increase of Economic Competitiveness"*)

Taking into account both the identified possibilities for improvement of the competitive position of Romanian companies and the areas eligible for the European Regional Development Funds support, the following Priority axes have been identified in the SOP IEC:

- Priority Axis 1: An innovative and eco-efficient productive system
- Priority Axis 2: Research, Technological Development and Innovation for competitiveness
- Priority Axis 3: ICT for private and public sectors
- Priority Axis 4: Increasing energy efficiency and security of supply, in the context of combating climate change
- Priority Axis 5: Technical Assistance

2. Short presentation of the Area of Intervention SOP IEC "D1.1. Productive and environment friendly investments and preparation for market competition, especially of SMEs."

The Priority Axis 1: An innovative and eco-efficient productive system of the Sectorial Operational Programme "Increase of Economic Competitiveness" refers to the efforts of supporting enterprises, especially SMEs, and will concentrate both on improving the market conditions linked to the development of the industrial base, in order to revive the business environment and generate new innovative enterprises, as well as on developing of the business sector, improving the access to capital and fostering technological development.

From the above mentioned areas of intervention the main instrument of the SOP IEC in order to support and finance quality improvement of the production processes of the Romanian companies is the area of intervention "D1.1. Productive and environment friendly investments and preparation for market competition, especially of SMEs."

The specific objective of this key area is represented by the consolidation and sustainable growth of the Romanian productive sector can be accomplished through:

- Revival of the productive sector based on extension and modernization, by investments in new technology, equipment, machineries and by acquisition of patents, trademarks, licenses,

- Innovation of production both concerning the production processes and the products,
- Adaptation to European and International Standards and certification of management systems,
- Access of the Romanian companies to new markets
- Promotion of sustainable development, decreasing of the negative impact on the environment and growing the international competitiveness.

3. Financial Analysis – Case study of an investment project proposed to be financed within the SOP IEC D 1.1

3.1 Establishing of the eligible company and the methodology for elaboration of financial analysis

In order to access European Funding within the SOP IEC D1.1. Programme the companies have to generate, fulfil and to respect the key financial indicators of the programme. The main purpose of the financial analysis is to use the project cash flow forecasts to calculate suitable net return indicators. The main financial indicators over which projects are selected for financing within the programme are: the Financial Net Present Value (FNPV) and the Financial Internal Rate of Return (FRR), respectively in terms of return on the investment cost, FNPV(K) and FRR(K). The methodology used for the determination of the financial return is the Discounted Cash Flow (DCF) approach. This implies some assumptions:

- only cash inflows and outflows are considered (depreciation, reserves and other accounting items which do not correspond to actual flows are disregarded);
- the determination of the project cash flows should be based on the incremental approach, i.e. on the basis of the differences in the costs and benefits between the scenario with the project (do-something alternative) and the counterfactual scenario without the project considered in the option analysis;
- the aggregation of cash flows occurring during different years requires the adoption of an appropriate financial discount rate in order to calculate the present value of the future cash flows.

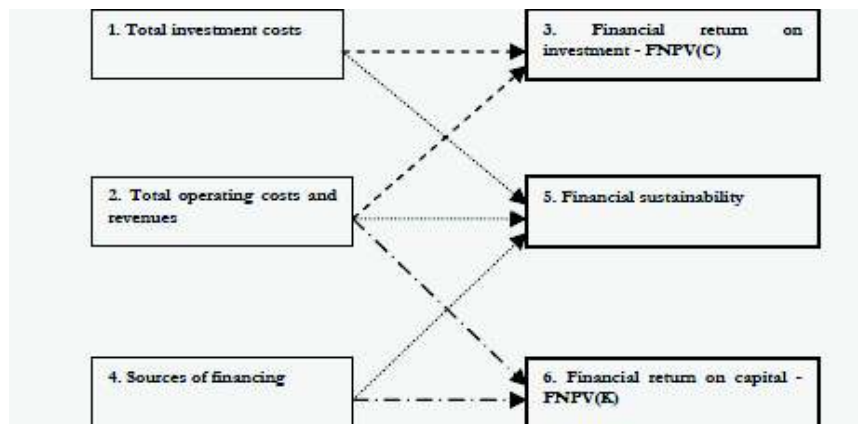


Figure 2 Structure of Financial Analysis

As seen in the Figure no. 3 the financial analysis should be carried out through subsequent, interlinked, accounts:

1. total investment costs
2. total operating costs and revenues
3. sources of financing

4. financial sustainability

5. financial return on the national capital: FNPV(K) and FRR(K)

According to the Guide of ROP IEC Programme, in order to obtain financing for an investment project FNPV(K) is requested to be higher than 0 and FRR(K) to be between 0 and 13.

$$FNPV = \sum_{t=0}^n a_t S_t = \frac{S_0}{(1+i)^0} + \frac{S_1}{(1+i)^1} + \dots + \frac{S_n}{(1+i)^n}$$

A simulation has been created over a project proposed by a company which we will define it as SC Test Company SRL, registered in Romania and eligible to access the programme. The company operates in the field of construction and is proposing for financing, in SOP Increase Economic Competitiveness, Priority axis 1, a project with the purpose of increasing its own competitiveness and production capacity by acquisition of a excavator on tracks and a compactor cylinder. The project proposed for financing should demonstrate its feasibility and sustainability through the income generated by the usage of the new equipment.

3.2 Financial Analysis

The first step within the financial analysis is the option analysis. EU Regulations require the proposer to provide the results of feasibility and option analysis (European Commission, 2008). The main result of such analysis is to identify the most promising option on which detailed CBA should be carried out. Sometimes this selection process is managed as part of the preparation on an operational programme or master plan. Once the feasible ‘do-minimum’ and a small number of ‘do-something’ alternatives have been identified, simplified CBA should be carried out for each option in order to rank them. A simplified CBA usually implies focusing only on the key financial and economic tables (see below), with rough estimates of the data, because in a differential approach the absolute values of the variables involved are less important than in a fully developed comparison of alternatives. The calculation of the financial and economic performance indicators must be made with the incremental net benefits technique, which considers the differences in the costs and benefits between the do something alternative(s) and a single counterfactual without the project.

As mentioned above the first analyses made for SC Test Company SRL were the comparison between the inertial scenario – case in which the equipment won’t be bought and the second scenario in the case of implementing the project with European financing.

Indicator	Year						NPV
	0	1	2	3	4	5	
Scenario with project – operational profit	275.653	602.010	565.098	537.826	490.554	440.602	2.452.337
Inertial scenario - operational profit	275.653	546.306	455.610	351.628	254.326	158.669	1.768.097

Figure 3 Option Analysis

As observed in the above table, the business plan prepared for the application form demonstrates that the annual net revenue in all five years of analysis is positive. The operational profit connected only to activities generated by the project increases exponentially in the period analyzed: 44.912 RON (year I), 53.000 RON (year II), 60.728 RON (year III), 63.456 RON (year IV), 73.504 RON (year V). For the proposed project the imposed discount rate is 5%.

Also extremely relevant is the analyses of the Cumulated Net Present Value which continuously increases reaching in the fifth year of analysis the amount of 2.452.337 RON for the entire company in scenario with project and 241.050 RON for activities related just to the project which also reflects an extremely high sustainability.

Year	Operational Cost	Total Benefit	Coefficient of Actualization	Actualized Operational Cost	Actualized TotalBenefit	Net income	Present net income
0	0	0	0,952381	0	0	0,00	0,00
1	179.888	224.800	0,907029	163.164	203.900	44.912,00	40.736,51
2	199.000	252.000	0,863838	171.904	217.687	53.000,00	45.783,39
3	226.472	287.200	0,822702	186.319	236.280	60.728,00	49.961,08
4	258.944	322.400	0,783526	202.889	252.609	63.456,00	49.719,44
5	288.096	361.600	0,746215	214.982	269.831	73.504,00	54.849,82
TOTAL	X	X	X	939.258	1.180.308	X	X

Figure 4 Total operating costs and revenues generated by the project

Another important indicator in evaluation of the sustainability of the project is the annual turnover which continuously rises during the five years of analysis. Also can be observed that the annual turnover in the scenario with the financing project in comparison with the inertial scenario is increasing continuously reaching 8.4% in the fifth year.

As mentioned above the main financial indicators over which projects are selected for financing within the programme are: the Financial Net Present Value (FNPV) and the Financial Internal Rate of Return (FRR), respectively in terms of return on the investment cost, FNPV(K) and FRR(K). Below is presented the Financial Internal Rate of Return of the investment as calculated for the project.

Year	Cost of investment	Operational Cost	Total Cost	Total Benefit	Coefficient of Actualization	Actualized Operational Cost	Actualized Total Benefit	Net present value	Cumulated Net present value
0	432.684	0	432.684	0	0,91407	395.506	0	-395.506	-395.506
1	0	179.888	179.888	224.800	0,83553	150.303	187.829	37.526	-357.981
2	0	199.000	199.000	252.000	0,76374	151.985	192.464	40.478	-317.502
3	0	226.472	226.472	287.200	0,69812	158.105	200.500	42.395	-275.107
4	0	258.944	258.944	322.400	0,63813	165.242	205.735	40.494	-234.613
5	-329.576	288.096	-41.480	361.600	0,58330	-24.195	210.923	235.119	505
TOTAL	X	X	X	X	X	996.946	997.451	X	X

FRR(K)=9,40%

Figure 5 Financial Internal Rate of Return on the National Capital FRR(K)

The financial internal rate of return for the investment, strictly connected with the activities generated by the project is 9.4% which shows that the project is eligible for financing.

The last step of the project is to establish the maximum proposed financing using the financial gap method. In order to do that the first step was to estimate the residual value which was calculated using Gordon method, was estimated for an average yearly rate of growth of 14%.

So the estimated residual value considered for the project is -329.576 lei.

Year	Total Cost of investment	IAF	Present investment cost	Total costs	Total benefits	Residual Value	Net income	Present net income
0	1.442.280	0,95	1.373.600	0,00	0,00		0,00	0,00
1		0,91	0,00	179.888,00	224.800,00		44.912,00	40.736,51
2		0,86	0,00	199.000,00	252.000,00		53.000,00	45.783,39
3		0,82	0,00	226.472,00	287.200,00		60.728,00	49.961,08
4		0,78	0,00	258.944,00	322.400,00		63.456,00	49.719,44
5		0,75	0,00	288.096,00	361.600,00		73.504,00	54.849,82
6		0,71	0			-329.575,00	-329.575,00	-234.222,80
Total	1.442.280		1.373.600	1.152.400	1.448.000	-329.575,	-33.975,	6.827,43
Estimated financing value				1.033.378				

Figure 6 Financial Internal Rate of Return on the National Capital FRR(K)

As observed from the above table the proposed value for financing is 1,033,378 RON and the main financial indicators for the project are: financial internal rate of return for the investment - 9.41% and FNPV is 241.050 Ron for the project and 2.452.337 RON for the entire enterprise. In these conditions, according the provisions of the ROP IEC guideline the project has been proposed for financing.

4. Conclusion

The European Integration came with new challenges for the Romanian enterprises especially for the SMEs, the opportunities arising from operating on the European Single Market and the possibility for accession of European Regional Development Funds. The main programme designed to offer access for small, medium and large Romanian enterprises to European funding is the SOP IEC. This paper analyzed the main financial indicators which have to be achieved by a project in order to be proposed for financing and also presented a case study of a Romanian company which successful realized a financial analysis and was later accepted for contracting, under this programme.

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