

ACCOUNTING INFORMATION – A BASIS FOR ACHIEVING THE DECISION FOR THE REALIZATION OF PUBLIC INVESTMENT PROJECT

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Accounting information plays a key role in the foundation process of public sector decisions. Financing budget deficits, treasury risk identification (availability risk), formation of tax claims, foundation of financial sustainability for public investment projects are just some examples of using accounting information in decision-making process of credit accountant.

How can we use and process accounting information in the foundation of public investment projects? We will try to answer this question in the content of this paper. The revenues and expenses, as accounting information, are necessary for determining the actual financial net value and/or the actual economic net value. These indicators have decisive information power in accepting and / or rejecting public investment projects. In the current economic context, the importance of investments is major for at least three reasons: the first one is a highly circulated reason in the last 20 years: the increase of technology, the alignment of the technology used in the alignment of competitors from the European market and even worldwide; the second reason is linked to the support of economic growth in crisis conditions through a policy of major investments especially in the infrastructure sector; the third reason, which derives from the second one, is that of post-accession grant funds available for investment both in private and public sectors. The importance given to public investments is also revealed by the authorities' approach to establishing key areas of interventions under grant programs (with programs designed to both public and private environment) designed exclusively to carry out public investment programs (for example the POS Transport).

In this context, the present research is intended to be a documentary of the role that accounting information plays in decision-making process that precedes the development of an investment, especially as most major investments are made in the public domain.

Keywords: public investments, accounting information, cost-benefit analysis.

H83 - Public Administration; Public Sector Accounting and Audits

H54 - Infrastructures; Other Public Investment and Capital Stock

Accounting can be viewed as a source of information for different users. Specialty literature identifies and groups these "consumers" of accounting information in two major categories: the internal users and the external users. In the internal users category, most authors include, together with managers and decision-maker managers, the employees. This category uses both information from the current financial accounting, from financial statements and also from the management accounting (internal management), the latter providing information exclusively for internal users. The external users category is larger: it includes investors, financiers, creditors, commercial partners (suppliers and customers), social partners (the unions), the public power and the financial analysts, the judiciary system and also the public.

Regarding the accounting information users involved in the decision-making process regarding the realization of an investment, they can be found both in the category of internal users (namely managers, board members) and external users, on positions such as investors, donors and creditors.

In order to be used by these categories of users, accounting information must be understandable, relevant, reliable, comparable, consistent and objective, forming the internal sources of information. These are:

- Financial accounting planning documents (budgets);
- Financial accounting tracking documents (stock records, reports);
- Financial accounting reporting documents (the balance sheet and its annexes, activity reports, evaluation reports);

Based on the information gathered from the sources above it can be drawn a series of financial indicators. These, from their type of expression, can be natural indicators, conventional natural indicators, indicators of value, labor indicators, or, seen in terms of their economic content, they can be structure indicators or efficiency indicators. Whatever indicator system used in the decision-making process should have the following quality attributes:

- coverage (it sufficiently covers the program in it's main, general and specific aspects);
- balance (includes indicators from each area of interest);
- simplicity (lesson criteria take into account the capacity of responsibility, understanding and accumulation of information by the users);
- relevance (the indicator system develops in all directions of action);

Focusing particularly on public investments, it is not without importance to mention the reform process that public accounting undergone in the last decade. Today, public accounting is a commitment one, defined by IPSAS as being the method in which transactions and other events are recognized when they occur and not when cash or its equivalent is received or paid (as the case of flow accounting) and events are recorded in accounting records and recognized in the financial statements of the periods to which they relate. The elements recognized under accrual accounting are the assets, liabilities, equity, revenues and expenses.

Accounting Law no. 81/1991, Article 2, paragraph 2 names public accounting components as follows:

- accounting of revenues and expenditures, reflecting the collection of revenue and the payment expenditure related to budget;
- Treasury accounts;
- General ledger based on the principle of finding the rights and obligations, reflecting the financial and economic development, and the surplus or deficit heritage;

Public institutions accounting provides for information to credit accountants regarding budgets of income and expenses, the assets under management and for the preparing of annual general account of state budget implementation, the annual execution account of the social security budget, the special funds and the annual accounts of implementation of local budgets.

Even if the first component of public accounting refers to evidence of revenue flows and payments, interpreted by some authors as being a return flow accounting, it is complemented by the general accounting component, which is based on accrual accounting.

Accrual accounting presents several advantages, allowing users to assess responsibility for all the resources controlled and used by the entity, to evaluate performance, financial position and cash flows of the entity and making decisions about providing resources or starting a business that the entity may have.

Substantiate a decision on setting up a project investment is based on extensive and thorough analysis of profitability and financial sustainability of that investment. Through this analysis – the cost-benefit analysis - is aimed to answer the following questions:

Is that projectworth to be financed through investments?

Under what circumstances is that projectworth to be financed?

If, in the private sector, the problem of running an investment is not always put in such an analytical manner, in the public investments sector, or in a sector involving public funds, no investment can start without having as basics the cost-benefit analysis showing that the net benefits of the project for the society are positive and the project benefits exceed its costs, resulting in an advantage for the society, such as encouraging economic growth, boost employment, improving environmental conditions and so on.

The opportunity of making an investment is, therefore, analyzed in socio-economic terms through the Economic Analysis of the Cost - Benefit Analysis that is a positive value of the actual net economic value of the investment.

According to the National Guideline for the Cost - Benefit Analysis of projects financed from structural funds, the stages for the realization of the Cost – Benefit Analysis are:

- Investment identification and defining objectives;
- Analysis of options;
- Financial analysis;
- Economic analysis;
- Sensitivity analysis;
- Risk analysis;
- Result presentation;

The financial analysis is used to calculate the profitability indicators using projected cash flows of the investment project. There are two indicators used in the financial analysis, namely: the Financial Present Net Value (FPNV) and the Financial Internal Rate of Return (FIRR), used at the level of investments costs efficiency level (VNAF/C, RIRF/C) and at the level of return on national capital (VNAF/K, RIRF/K).

Financial analysis deals with the investment exclusively in terms of the economic operator that realizes it, aiming the verification and guarantee of cash flows generated by the project, namely the financial sustainability, and determining the financial return on investment with the help of the indicators listed above.

The economic analysis is carried out at a different level; it assesses the impact of the project on the region or country's economy. The information provided by the accounting system, respectively the recordings on inputs and outputs, reflects only the transaction price of certain goods and services, the price practiced on a certain market, and doesn't always reflect their social value, social opportunity cost. Such distortions may be found on monopoly or oligopoly markets, may be caused by trade barriers acting on prices, markets with regulated prices. There are also situations where no information is available on certain categories of costs and / or benefits related to the project, such as effects on the environment or general health conditions that cannot be easily monetized, but due to their significant impact, they need to be included in the evaluation. In order to calculate the indicator's value from the economic analysis (the Economic Net Present Value - ENPV and the Economic Internal Rate of Return - EIRR) it is necessary to transform the market prices (accounted) in shadow-prices, the non-tradable and monetization effects and the involvement of additional indirect effects, if they are significant.

The period for which a cost – benefit analysis forecast is spanning varies from project to project, or better said from one investment domain to another. For example, investments aimed at areas such as water and environment, railways have the highest recommended timeframe for undergoing the Cost - Benefit analysis, a timeframe of 30 years, while investments aimed at areas such as energy, telecommunications, industry, have the recommended time range of 25 to 10 years.

When the benefits of an investment project cannot be quantified in monetary units, using a non-monetary quantification system of benefits in relation to the determined investment cost per product unit, it is used a different valuation technique: the Cost – Effectiveness Analysis.

The performance indicators of an investment project that are calculated within the financial analysis are based on net cash flows. These should not be mistaken with cash flows from accounting conventions, particularly those used in financial reports of economic entities.

The methodology used for achieving the Cost - Benefit Analysis in estimating cash flows, require a few assumptions, namely:

- are taken into account only incoming and outgoing cash, the depreciation, the reserves while other accounting elements, which do not correspond to real flows, are ignored;

- the project's cash flow statement is based on an incremental approach, respectively the difference between costs and benefits of the scenario with project (the alternative to do something) and of the scenario without project;
- annual cash flows for all the years under review will be aggregated, making it necessary to adopt an appropriate financial discount rate in order to determine the present value of future cash flows;

Financial analysis will be carried out through a series of interconnected and subsequent calculations, based on total investment costs, later estimating the operation and maintenance costs on one hand, and the income following the implementation of investment project, on the other. All these estimates will be compared with another set of estimates which is based on the assumption that the economic entity's operations will continue under the original conditions, without the accomplishment of the investment.

The guideline for the cost - benefit analysis of investment projects, published in 2008 by the General Directorate of European Commission's Regional Policy, shows the categories of inputs and outputs that must be quantified and considered separately for each category of indicators within a Cost-Benefit Analysis, within a chart form, as follows:

	VNAF (C)	Sustainability	VNAF (K)
Total investment costs			
Land	-	-	
Buildings	-	-	
Equipment	-	-	
Sudden maintenance	-	-	
License	-	-	
Patent	-	-	
Other pre-production expenditures	-	-	
Variations of circulating capital	-(+)	-(+)	
Residual value	+		+
Total operating costs			
Raw materials	-	-	-
Wages	-	-	-
Electrical power	-	-	-
Maintenance	-	-	-
Administrative costs	-	-	-
Other cash outflows			
Interests		-	-
Loan repayments		-	-
Taxes		-	-
Total operating incomes			
X Product	+	+	+
Y Product	+	+	+
Finance sources			
EU Assistance		+	
National public contribution		+	-
National private capital		+	-
Loans		+	
Other resources (operating subsidies)		+	

Source: Guide to cost - benefit analysis of investment projects, DG Regional Policy EC
 Note: Signs "-" and "+" indicates the nature of cash flow. For example, national public contributions are taken into account as input when the project's sustainability is checked and is considered an output when the profitability of national capital is estimated (K).

Most of the times an investment exceeds a financial year, so there must be made an estimation of the investment costs, more specifically of the payment or settlement of the charges. Total investment costs can be grouped into three main categories, namely:

- expenditure on fixed assets;

- start-up expenditure;
- changes in working capital;

Most of the payments related to an investment are most often represented by cash outflows arising from the acquisition of **fixed assets**. The source of information regarding the estimated value of assets to be acquired in an investment objective is represented by the feasibility study. The payments taken into consideration for the acquisition of fixed assets are the incremental ones, established as the difference between the investment with scenario and the investment without scenario. This category includes also the residual value, which doesn't represent a cash outflow, but a cash inflow supposed to be done at the end of the analysis. This is actually the net present value of assets at the end of the last year of the analysis period. Because of the fact that these flows do not occur during the last stage of investment, they are not included in the discounted investment cost (DIC), but in the updated net income (UNI). Residual value can be calculated in three ways:

- taking into account the residual market value of fixed assets, if sold at the end of the considered time horizon and with the liabilities standing net;
- by calculating the residual value of all assets and liabilities, based on standard formulas for economic depreciation of capital (other than the depreciation for determining the profit tax);
- by calculating the updated net value of cash flows for the remaining life of the project.

The size of residual value is influenced by the timeframe set for the projections of the cost - benefit analysis. Timeframes shall not exceed the useful economic life of the investment, but also it shall not be significantly reduced compared to it. The residual value is minimized when choosing the optimal analysis horizon.

Start-up expenditure include all costs, at the level of payments, related to the investment objective, made outside the period of realization of the investment itself, and which cannot be considered themselves as investments. This includes the costs of various studies, including the feasibility study, costs of research - development expenses, consulting expenses, training the staff that will serve the investment, the cost of own sources of financing, etc. Even if the benchmark treatment doesn't always allow the capitalization of these costs, they should be taken into account within the cost - benefit analysis on the grounds that, without such investment, these costs would not have existed.

Changing in working capital is significant generally for productive investments. This changing in working capital is considered at the net capital, determined as the difference between current assets and current liabilities relative to the investment's operation. The size of this variation in working capital is determined by the demand for trade credit from the customers, of the timing and size of the credit provider (short-term, suppliers of current activity) and of the correct estimation of availability needs, so that the financial sustainability of the investment project is not jeopardized. Thus, in this economic category are included the receivables, the inventory of each stage of production, and cash and other short-term liquidities. It is noted that, by its nature, working capital is a fund that should be considered in the cost - benefit analysis as a flow only as it varies from one period to another.

Operating costs include all current payments resulting from operating the current investment. These are staff costs, including the related social cost, expenditures for raw materials, utilities consumption, general expenses arising in each accounting cycle. From the category of accounting expenses recorded currently, the depreciation expenditures, provisioning expenditures and other reserves expenses are not taken into account, precisely because these do not involve cash flows and because the potential risks to the accounting practice require the provisioning to be taken into account when achieving the cost - benefit analysis.

The revenues generated by the current exploitation of the investment are determined on the basis of expected price and quantity of traded product or possible service. Transfers and subsidies are usually not considered in incomes in the Cost - Benefit Analysis, nor is the value added tax or other indirect taxes that the operator perceives from the final consumer, in order to

subsequently pay to the tax administration. There are, however, situations where it is recommended to consider the flow of indirect taxes for the financial sustainability analysis of the project. Regarding the consideration of subsidies and transfers as being part of the income category, if these subsidies or transfers are directly linked to the exploiting activity of the investment, and they don't have a sporadic nature, they should be taken into account. These situations are the most numerous when it comes to public investments, investments performed in health infrastructure, social infrastructure, education infrastructure and so on, precisely because the activity that uses the infrastructure involved is financed precisely through these mechanisms.

Other specific situations related to public investments are those where the ownership of infrastructure on which investments are made belongs to another entity than the one who will operate the infrastructure. Such situations are the ones related to water and sewer systems, centralized heating and railway transport; in such cases where, the ownership of infrastructure belongs to the state or to the territorial administrative units, while their exploitation is carried out by different economic agents.

Due to the fact that the cost - benefit analysis is performed for the owner of the investment, it would be useful to perform a **strengthened cost - benefit analysis** for both sides.

Financial sustainability of the investment implies the existence of a positive cumulative cash flow for each year of the time horizon for which projections are made. When we refer to public investments, where, in the decision-making process, the political factor is also involved, the financial sustainability of an investment project can also be supported by public funds allocation policy in various forms by operating activities of the undergone infrastructure.

As a conclusion regarding the use of accounting information as a basis of the decision-making process for the acceptance or rejection of public investment projects, we must admit that the decision factor has also a political component that may use some legal leverage in order to influence the outcome analyzed, and thus the investment decision.

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