# Financing Investment Projects the Relationship between Feasibility Study and Business Plan

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#### **Abstract**

The common characteristics of the investment efforts, the high complexity and generated impact, have determined significant mutations in the approach to the concept of investment in agriculture, from a simple expense undergone with a direct purpose (the accomplishment of unique objectives, or the reparation of a status quo) to complex projects (deviating the flow of rivers, leveled terraces, irrigation works, etc.), characterized by specific phases, activities and instruments. Initially defined as an ensemble of activities with a specific beginning and end, with a time, resource and budget limit, completed with the purpose of reaching a defined objective, projects have practically become the main operational tool at the level of organizations, in the investment field.

**Key words:** project, investment, agriculture, financing, feasibility study

### 1. Introduction

Any investment project materializes into an objective which, in the end, contributes to the production or service process as fixed capital. The rigorous foundation of investment projects, as well as the evaluation of the status quo and potential of any organization, to bring to fruition a project, within economic efficiency parameters, at a given point, implies the feasibility study of the project [4]. Therefore, within the specific literature, most often we find reference to opportunity, pre-feasibility, feasibility and eligibility studies as well as the business plan.

#### 2. Opportunity and pre-feasibility studies

The development of a project through stages and consulting different relevant documentation, facilitates the promotion of investment, gives a better base for decision making regarding the project and its implementation, assuring transparency on all levels. While the purpose of an opportunity study is easily established, it is not as easy to differentiate between the terms of "feasibility study" and "pre-feasibility study", considering the lack of precision with which these terms are used. The literature notes the fact that the opportunity study has as its main objective the identification of investment opportunities and the promoting of investment projects, in a specific field of activity or area [5]. The main instrument used to quantify parameters, information and data necessary to develop an idea from a project into a business proposal is the opportunity study which analyzes the following aspects:

- the natural resources available in a given region which may be processed;
- current and potential demand for certain consumption goods or services, the potential of which has evolved following the increase in population or buying power;
- import and export relations at the level of a given activity field or region;
- impact on the environment;
- production sectors which are successful in other regions with similar economic bases, level of development, capital, workforce and natural resources;
- the possibilities and alternatives for expanding the existent production lines or their diversification;
- general investment climate and industrial policies;
- svailability and production factor cost.

Figure no.1 covers the structure of the relation between the main documents specific to an investment project.

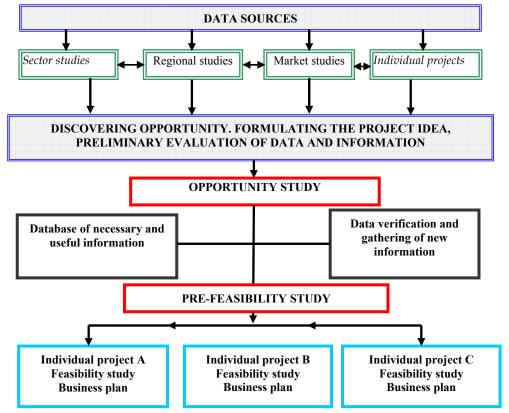


Figure no. 1. The position of opportunity studies in the entirety of the documentation specific for a project

The usefulness of the opportunity study in the design of an investment project is made clear also by the relatively high percentage of projects which stop at this phase, as the consequence of identifying major nonconformities, an impossibility of development of certain projects or resource insufficiency. If it were not for this study, these projects may be run, but most importantly, may consume considerable resources, only to find in the end that the result given by a pre-feasibility or feasibility study also show nonconformity with the established objectives.

The idea presented in the initial project, must be analyzed in a more detailed study, however the carrying through of a feasibility study, which would make possible the taking of a definitive decision regarding the respective project, requires a great deal of time and financial resources. Therefore, before allocating larger funds to such a study, a superior project evaluation is necessary, through a pre-feasibility study, the main objective of which is preliminary selection in order to establish whether or not:

- all possible alternatives of the project have been examined;
- the design of the project justifies a detail analysis given by a feasibility study;
- the existence of certain negative aspects of the project which may seriously affect its feasibility and validity;
- the initial project, based on available information, may be considered attractive for a particular investor, group of investors or financial institution;

The running of a pre-feasibility study may be undergone by the initiator of the project idea, or an external specialist, the central element being the general concept of the project from a technical standpoint and the sketchy evaluation of the application means. On this basis, the way in which the project fits into a sector program may be defined, and the identification of possible financing sources may be initiated. The significant differences between a pre-feasibility study and a feasibility study are related to the degree of detail in the information and the intensity with which

the available alternatives are taken into account. Pre-feasibility studies may have as a final result, a decision regarding the continuation of the project and the running of the rest of the documentation (feasibility studies, business plans) or a decision regarding the re-analysis of the project opportunity, in a sector or regional context, respectively the most dreaded decision, that of ceasing any action due to major causes, which implies that the project may be unsuccessful.

## Defining feasibility studies

The feasibility study is defined as an instrument which may offer a technical, economic and financial base in the taking of the decision to finance an investment project. The concept of a feasibility study implies the running of analysis and evaluations of a complex nature at the level of the future investment objective, in a given time span, while taking into account uncertainty and risk factors. The result of the analysis, for the time span taken into account, must illustrate the availability of financial resources in the covering of the functional necessities of the given system, with a purpose to ensure the production of goods and/or services and the satisfaction of all financial obligations (e.g.: duty service). The purpose of the feasibility study results from its quality as a technical-economic instrument, on the basis of which the viability of the firm is attested. From a wider angle, the purpose is constituted by facilitating the functioning of the firm, on the basis of the principles and mechanisms specific to competition economy [4].

The sphere of reference of the feasibility study depends on its nature. Thus, one identifies feasibility studies for projects and for firms. In the first case, the investments undergone, the static and dynamic financial analysis, the technical-economic forecasts have as a purpose the promotion, within certain identified risk margins, of certain investment projects. In the second case, on the same intercession (through investigations, analysis and forecasts), through the feasibility study, the technical-economic coordinates within which the unit of reference will be entered, as a consequence of the envisioned strategy (development, restriction, division, sell, etc.) are shaped [9]. Amongst the most frequently identified objectives within feasibility studies, we may recount: the development of an organization in a certain activity sector, attracting external financing, rectifying and improving quality and competition performances, defining a long or medium term strategy, etc. Based on these complex objectives and multiple destinations, several types of feasibility studies have been identified, of which we recount: studies for *new objectives*; studies for the *development* of existing firms, with a well defined profile, without profit or with low profit, studies for the analysis of the economic viability of operations of privatization, dissolution, separation or unification of two or more separate entities;

The **specific functions** of the feasibility study reside mainly in the practical modes for which it is undergone. Thus we may identify the following functions:

- 1. The testing function of the organization through which the analysis of economic and technical systems is ensured, through the spectrum of the exiting, available and potential factors which may be attracted in current activity, the way in which resources are capitalized on and prior economic results through specific financial and economic efficiency indicators.
- **2.** The *identification function* of the place of the firm in the competition economic environment, the market position which it occupies, the long and medium term current and potential influence factors.
- **3.** The *forecast function* regarding the firm's future strategic orientation, the formulation of alternative and probable coordinates within which this might evolve.
- **4.** the *function of a static and dynamic analysis tool* reflected by its very content, which constitutes the base of forecasts, viability or risk analysis, etc. [1]

The elaboration of the feasibility study on a national level, regardless of whether or not it is done for a public or private investment project, for a reimbursable or non-reimbursable, it must be according to Order no. 913/2005, which details the content frame of the study, the main elements and evaluation criteria [8]. With regards to the content frame of a feasibility study, the legal document presented, refers to all chapters and information necessary regarding the identification of the organization, the analysis of its current state and of the activity field, the presentation of alternatives, the establishment of selection criteria, the analysis of efficiency and risk for the future

project, as well as the existence of a technical part in which proposed solutions which consequences stemming from adopting one decision or another, are detailed from a technical and technological standpoint. Current practice has shown that, often, a feasibility study is necessary, in which the aspects given above are thinly analyzed in order to give a first image of the future development in alternatives and variants [9]. Something that must be stated is the fact that the results of a feasibility study are limited in time, by the dynamics of the economic environment, by the changes in the activity sector, by the results of research and development activities, etc.

## 3. The relationship between the feasibility study and the business plan

The feasibility study precedes the business plan, representing a less complex and faster means of analysis of a business opportunity from the point of view of its viability, establishing whether or not it is worth it to continue the efforts for its capitalization. The usefulness of the feasibility study is linked to the significant decrease of the risks taken by the one who undertakes them, when attempting to capitalize on identified economic opportunities.

The main elements which differentiate a feasibility study from a business plan are linked to:

- the pursuit of a single goal, the feasibility of the business venture;
- the reduced complexity;
- the narrowed investigative focus;
- tighter timeframe;
- more complex technical detailing;

The succession of studies is represented in figure no. 2.

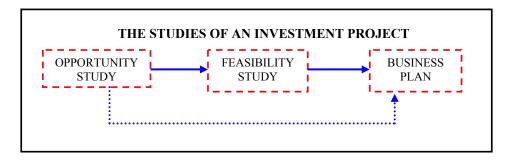


Figure no. 2. The relationship between the main instruments useful in the preparation and implementation of an investment

The feasibility study, when it comes to the conclusions that the economic opportunity [7] may become a feasible business, is recommended to be followed by a business plan. The information and analysis within the feasibility study are incorporated into the business plan, facilitating, in most part, its implementation. The business plan constitutes an irreplaceable tool for business undertakers who are creating a firm or looking for partners, for managers who propose new projects for other persons or institutions, for firms which want to launch new products or services or just to better manage their activities, for institutions which manage funds for new investment projects. What must be noted is that the role of a business plan is not just to prove that the business venture is worth financing, but, first of all, to guide the business undertaker through all of its operational phases. A business plan must have a sketch of the philosophy of an organization as well as the main directions on which it runs its activity, which forces the undertaker to research all long term plans and perspectives of the company [3]. After the initiation of a business, the business plan keeps the attention of the managers focused on the major objectives, not allowing day to day operations to distract their attention from them. An investment specialist estimated that, in countries with a developed market economy, potential investors refuse 60% of investment proposals in the first half an hour, take into consideration 15%, reaching negotiation phase only with 5% of the proposals.

Based on the followed objective, the business plan serves the following functions:

**a.** The function of crystallization and development of ideas regarding the way in which the entire business should be elaborated, led and analyzed.

The major benefits of making a business plan are linked to the fact that it clearly defines the goals and objectives of the business, establishes the methods for their achievement; it identifies the implicated risks and the specific methods for quantification and elimination of risks. In this

manner, the business is examined from all points of view (marketing, production, financial support), the allocation of resources following the maximization of efficiency, and the implemented strategies will take into account reality, having concrete chances of success. This function is specific particularly to start-up business plans or expansion plans, when the undertaker must form a clear image about the future evolution of the project.

- **b.** *The function of evaluating a new business idea,* by means of which new start-up or expansion investment projects are evaluated, compared and classified.
- **c.** The function of running a retrospective evaluation of the real performances of a business in time; through its use being made possible a retrospective analysis of the real performances of a business along a given time span, while identifying the causes and modes of action of the company in the future.
- **d.** *The function of obtaining financing.*

Most often, the creditors finance a project only after a detailed study of the business plan, through which they become convinced of the ability of the business to generate revenue necessary for daily operations, payment of debts and generating profit. By analyzing the business plan, the financers will be able to gauge the capacity of the leadership to diagnose the situation presented, to outline future objectives and to select the optimum strategy for their achievement. This function is fundamental in the case of a start-up or expansion business plan (when financing is sought to be obtained). A business plan must have reference points and other elements to aid orientation in the economic environment, preparing at the same time the economic agent for the more or less predictable modifications in the "track". Nobody expects that the business goes exactly according to plan, but knowing and understanding the process of planning the business will prepare it for change and optimize reaction time [2].

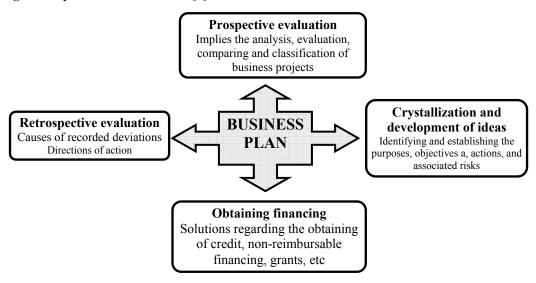


Figure no.3. The specific functions of the business plan

Also, both within the frame of the feasibility study as well as the one of the business study, there must be a detailed presentation of institutional and administrative aspects which may significantly affect the implementation and running of the future project. It is taken into account the way in which the new activities will be managed and intenerated in the functional and hierarchical structure of the organization. Also, within these studies, it is necessary to include relevant social aspects of the effect of the project on the local collectivities: workforce employment, the increase of population revenue as a result of the allocation of project capital, quality of life. Just as important are the ecologic conclusions, referring to the impact on the landscape environment of the area, on the quality of environmental factors. On the basis of the conclusions derived from the feasibility study, the decision factors pronounce themselves on the project: abandoning, continuing or reevaluating it, through the taking into consideration of project other hypotheses or variants.

## Conclusions

The evaluation of projects, in most cases, is a standardized procedure of treating the technical, economic and financial information referring to the project, following which, on the basis of a system of criteria established beforehand, the selection, modification or abandonment of the project

is recommended. The process of document evaluation has a continuous character, being necessary to run it in different stages of the life cycle of the project, as follows:

- at the end of each lifecycle phase, in order to decide if the continuation of the project is worthwhile;
- after each significant step, within the phases, in order to allow for the taking of tactical or corrective decisions, during the running of the project;
- after the design is finalized but before the execution of the project investment (ex-ante evaluation);
- at the end of the execution/implementation of the project (mid-term evaluation);
- in the operation phase to observe the way in which the previsions are achieved (ongoing evaluation) [6].

The evaluations which are run in the first phases have a high degree of risk, since they are based on hypotheses or future information, while during the evaluation of the final results (ex-post evaluation), the risk is reduced, since it is based on historical fact. In order for the results of different evaluations to be coherent and allow comparison, it is necessary that a common system o indicators and values are used, and that the methodology implemented have the same benchmark, regardless of the point at which the evaluation is run. In the running of the evaluation it is important to keep in mind the quantitative and qualitative side of the project, as well as the establishment of comparison dimensions between different evaluated aspects (effects and efforts). Most often their expression in monetary units is practiced, which may raise difficulties from the point of view of assimilations or uncertainties with regards to respective quantities and costs. Regardless of the point in time at which the evaluation is run or the methods used, the establishment of pertinent conclusions that allow the deciders to formulate conclusions vis-à-vis the pursued objectives, is important. If the evaluation is run by entities specialized in this type of procedure, this ensures a higher credibility, transparency and most of all, safety, for the rest of the phases. Within the frames of non-reimbursable financed investment projects, external evaluation is obligatory, must be done periodically, based on the recommendations of the financers and includes at least an economic analysis, a financial analysis and a risk analysis. Evaluation, from a national economy standpoint (economic analysis) takes into account the necessary correction imposed at price level, the benefits and efforts indirectly generated, on the basis of which such a decision may be made. The main element of this type of evaluation is reflected through the contribution of the producer to macroeconomic development. From a financial perspective, the impact of the project at the level of the promoting organization is taken into account, through the quantification of all necessary effects and efforts, put against the sources of funding and the recipients of the benefits, respectively. The risk analysis specific to investment projects will be detailed in the following subchapter. Regardless of the criteria used in their evaluation, the projects must be judged from a multiple perspectives, so as to always ensure that an adequate multi-criteria evaluation is run. The project beneficiary, the sponsor or financer, will be the ones who establish the hierarchy of priorities, focusing on one another of the following: financial, economic, social, environmental based on the objective or objectives followed. In case the quantitative finalizing is not possible, other more sophisticated qualitative comparison statistic means may be used (multi-variable analysis, qualifying and grouping techniques). The results of the evaluation are centralized in an evaluation report, a document which fundaments the continuation or cessation of the following phases of the project.

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