

INCREASE IN THE ROLE OF THE FINANCIAL SYNTHESIS REPORTS FOR ACCESSION OF THE EUROPEAN STRUCTURAL FUNDS

Chirilă Emil

University of Oradea, Faculty of Economics

Droj Laurențiu

University of Oradea, Faculty of Economics

European integration is supported through important financial resources in order to sustain the investment effort for aligning the business infrastructure and increase in the business competitiveness in order to fulfill the European Union standards.

The financial management, a basic component of the general management, has as scope to realize complex financial analysis in order to substantiate the decisions for investments and financing which should ensure the maximization of results, ensuring also the elaboration of the project budget as an essential document in the identification of the needs for resources and for obtaining the non-reimbursable financial sources.

An essential role in the investment decision making, having as support European funding, is realized by the financial-accounting reporting documents such as balance sheet, profit and loss account, table of the treasury flows, which together with a realistic established actualization rate ensures the relevance and efficiency of the financial indicators: Net present Value(NPV), Internal Rate of Return(IRR), the investment recovery period, the benefit/cost ratio.

This study has as its goal to realize a critical analysis over the main simulation methods and techniques for forecasting annual return based on its growth rate, which should ensure the success of the implementation and operation of an investment realized through European structural funds respecting also the requirements for minimization of risks. In this research it is shown the importance of proper generation/modeling of the annual turnover in an investment project. Several methods were presented and case study was realized. Since the annual turnover constitutes the basis for the entire financial analysis it is very important that a realistic growth rate is used. Otherwise the provisions within the financial analysis of the investment (including CBA), the project implementation strategy and later the plan for the utilization of the newly realized investment might prove difficult to be fulfilled.

Key words: Structural funds, Financial Statements, Annual Turnover, Annual Growth rate

JEL Codes: G30, O16, G34, G38

Introduction

European integration is supported through important financial resources in order to sustain the investment effort for aligning the business infrastructure and increase in the business competitiveness in order to fulfill the European Union standards (European Commission, 2009).

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An essential role in the investment decision making (European Commission, 2008) having as support European funding, is realized by the financial-accounting reporting documents such as balance sheet, profit and loss account, table of the treasury flows, which together with a realistic established actualization rate ensures the relevance and efficiency of the financial indicators(Droj

L., 2010): Net Present Value(NPV), Internal Rate of Return(IRR), the investment recovery period, the benefit/cost ratio.

This study has as its goal to realize a critical analysis over the modeling of the annual turnover an essential element in the financial analysis over an investment realized through European structural funds respecting also the requirements for minimization of risks.

The fundamental element of the financial modeling for an investment project is the accurate estimation of the annual turnover. The factors which should be taken into consideration for estimation of the volume of sales are:

- a) The tendency which is registered in the evolution of sales for the last period (the trend analysis). Extrapolation of the past tendency is a method which is often used, but not always in a realistic way, and in this way the modeling and prevision based on a global annual turnover, determined only by the past evolution can be erroneous, being necessary also a thorough analysis
- b) the discomposure of the annual turnover on product categories or services and analysis of the evolution of sales on each category.
- c) The analysis of the global level of the market of products and services, making estimations over the market share, which is depending also by the production capacity of the company, quality of products, the applied price strategy, competition, opportunity of external financing(credit), promotion campaigns.
- d) Dimensioning of the annual turnover at the level of the sustainable growth rate, will generate an insufficiency of funds, and the company will use external financing through loans, thus changing the degree of indebtedness, which will lead to higher costs related interest.

Generation of the Annual turnover - Literature Review and Research methodology

The existing theory (Dragotă, V., Ciobanu, A., L., Dragotă, M, 2003 and Higgins, Robert C., 1995) and financial practice is recommending the following methods for prevision of the annual turnover:

(A) Usage of the historic data

Assuming that there is a connection between the growth rates of turnover a company registered in the past and their future development, aggregation methods involve several alternatives:

(a) Using the average growth rate, projected growth rate of turnover is the average (simple or weighted arithmetic) growth rates recorded in the past. Simple arithmetic mean is:

$$\bar{g} = \frac{\sum_{t=1}^T \text{growth.rate}_t}{\text{no. periods}} = \frac{\sum_{t=1}^T (CA_t - CA_{t-1})/CA_{t-1}}{T}$$

Disadvantage of this method is that all periods analyzed are given the same importance. This drawback is eliminated by using the weighted average, which gives higher rates closer to the time periods forecast. Weighted arithmetic mean is:

$$\bar{g} = \frac{\sum_{t=1}^T \text{growth.rate}_t \times t}{\sum_{t=1}^T t} = \frac{\sum_{t=1}^T ((CA_t - CA_{t-1})/CA_{t-1}) \times t}{\sum_{t=1}^T t}$$

Depending on the average (simple or weighted arithmetic) growth in turnover, you can determine the projected turnover for next period:

$$CA_{prev(T+1)} = CA_T (1 + \bar{g})$$

Outlook depends on the length used as a source of information for extrapolating the average growth rate of turnover.

(b) Using the growth rate estimated by linear regression, assuming that the rate of growth recorded over time, based on a trend, so that the future growth rate is determined by the trend foreseen; regression is between turnover and the time using the method of least squares.

$$CA_t = \alpha + \beta \cdot t + \varepsilon_t,$$

where $t=1,2,\dots,T$;

α = amount of annual turnover when 0;

$\beta=\partial CA/\partial t$ represents the absolute change in annual turnover in a certain period of time;

ε =error (deviation) CAreal (CA_t) over the estimated Annual turnover(CA) estimated through by the β and free term α ($\alpha+\beta t$), respectively

$$\varepsilon_t = CA_t - (\alpha + \beta t)$$

Parameters α si β of the regression is determined based on data recorded from 1-T, so that errors be as small. By estimating the regression coefficients it can be determined the estimated turnover for the next period:

$$CA_{T+1} = \alpha + \beta(T + 1)$$

The deficiency of the linear model is given by the fact that the model, although it specifies an increase in the monetary units (ΔCA) is not appropriate for forecasting future growth.

$$\Delta CA / CA_{t-1}$$

Using historical data to estimate future growth in annual turnover is a useful but is not presents sufficient information. The empirical analysis demonstrates that it is unlikely that firms that have registered faster growth in certain periods are able to continue the same pace in future periods.

The relevance of the past data for forecasting future data depends on the establishment of the company and the business environment in which it acts; stability is influenced by the following factors:

-the volatility of growth rates is represented by change (dispersion) of growth rates compared to average growth rate calculated for a given sample size T (the records are from the period $t = 1$ at $t = T$)

$$\sigma_g^2 = \frac{\sum_{t=1}^T (g_t - \bar{g})^2}{T-1}$$

where : σ_g^2 = growth rate variation of CA

g_t = growth rate of the CA in the year t

\bar{g} = average growth rate registered in the period 1, T

-Firm size-measured in percentages- with increasing firm size becomes more difficult to maintain higher growth rates.

- Economic cycle - if the company's activity is influenced by economic change is essential when choosing data analysis - if there is a period of economic census, one can expect "increase" negative, so the forecast is irrelevant.

- Structural changes - the growth rates recorded are the result of the policy mix adopted by the company: investment policy and dividend policy. In case that the company changes one of these policies, the information by that time become irrelevant for predicting future developments.

(B) Using the sustainable growth rate

The rate of increase in turnover can be calculated:

$$g_t = \frac{CA_t - CA_{t-1}}{CA_{t-1}}$$

Increased turnover involves increasing proportion of the asset that corresponds to an increase equal to the liability. The concept of sustainable growth rate refers to the rate of increase in turnover to generate the maximum possible without financial imbalance, taking into account the following assumptions:

-The firm is unwilling to seek issuance of new equity shares; increasing profit is achieved by incorporating

$$\Delta CPR = \text{Reinvested Profit} = \text{Net Profit} - \text{Dividends}$$

- The company seeks to maintain the current capital structure (ratio of debt / equity = L = constant), increasing debt cannot be achieved only by increasing the proportion of equity

$$\frac{\text{Financial.Debits}}{\text{Equity}} = \frac{\text{Financial.Debits} + \text{New.loans}}{\text{Equity} + \text{Re invested Profit}}$$

-The firm seeks to maintain current dividend policy (dividend distribution rate = d = constant), the undistributed profits (left to the investment within the company) is (1-d), sustainable growth rate will be:

$$\begin{aligned} g_i^* &= \frac{\Delta ACTIV}{ACTIV_{t-1}} = \frac{\Delta Equity + \Delta Debits}{\Delta Equity_{t-1} + \Delta Debits_{t-1}} = \frac{\Delta Equity(1+L)}{Equity_{t-1}(1+L)} = \\ &= \frac{\Delta Equity}{Equity_{t-1}} = \frac{\text{Re invested Profit}}{Equity_{t-1}} = (1-d) \frac{\text{Netprofit}}{Equity_{t-1}} = (1-d) R_{fin}^{13} \end{aligned}$$

There are three possible situations:

-the actual growth rate of annual turnover is higher than the sustainable growth rate - this can not be achieved only by relaxing one of the hypotheses: either resort to attract additional resources by issuing shares or debt increase or decrease rate of dividends, this strategy is not recommended to be used for a long term as it leads to excessive debt or shareholder discontent;
- actual growth rate is lower than the annual turnover rate with sustainable growth - the company does not use all available resources, so that opportunity costs are incurred;
- the actual growth rate of turnover is equal to the rate of sustainable growth – optimal option, so it can be use to forecast turnover rate with a sustainable growth:

$$g^* = \frac{CA_{prev} - CA_{actual}}{CA} \quad CA_{prev} = CA_{actual}(1 + g^*)$$

Investment decisions are an important part of the financial planning process, opportunities for capital expenditure, even they may seem financially attractive, can be rejected if would not lead to achievement of the proposed targets. Proper perspective on investment analysis is that strategic plans should create an umbrella to achieve operational and capital budgeting.

Growth and its management presents specific problems in financial planning, many executives saw growth as something to be maximized based on an increase in market share and profits. From a financial perspective, growth is not always a blessing, can substantially affect the company's resources and if adequate measures to control it, could lead to bankruptcy. It is regrettable that companies which pass the market test with their products, are failing because they lack sources of funding for management growth. Size of the growth rate can be analyzed by defining a sustained growth rate and by indicating a maximal rate of increasing company's sales without affecting the financial resources.

Management should analyze all the options when the target growth rate exceeds the rate of sustained development and increases falling below the level of support, ignoring the financial limit growth to preserve power.

Case study – Evaluation of the residual value and of its influences over the IRR in case of a Romanian production company

Financial analysis as component of the financing plan is intended to fundament the performance and sustainability of the proposed investment, the financial support, long-term sustainability, financial performance indicators in order to justify the financial assistance(Droj, 2010). Approval and implementation of investment with financial assistance from European structural funds needs the elaboration of different investment alternatives(European Commission, 2008) for a period of 5 years plus the period of implementation as follows:

- Inertial scenario – which forecasts with no investment option based on the present work
- Scenario with investment - which forecasts the activities and cash flow after realization of proposed investment: with and without financial assistance from structural funds.

The financial statements elaborated in order to fundament the investment process include(Guvernul României, 2010):

- funding needs for the business plan / project
- financial resources during the implementation period and after the structural funds assistance
- the balance sheet, profit and loss calculation of liquidity (cash flow) annually, estimated during the analysis.

Management generally is interested in the profit and loss forecast, profit being considered as a measure of performance while financial management is interested in estimating future financial needs. The projected revenues are interpreted in the context influence over the balance sheet in order to determine the optimal size of external financing.

Based on the financial contract presented by Guvernul României(2010) there are different situation for returning of grants as following:

- Reasons during investment implementation period:
 - false statements on the investment conditions
 - lack of proper justification and non-realistic expenditure
 - breach in the principles of sound financial management
 - non-contractual provisions for monitoring, information and publicity
- Reasons during investment operation period (5 years):
 - closure of business, relocation or maintenance of the investment for less than 3 years after the project completion
 - failure activities and not fulfilment of the objectives of the application form

In order to avoid the risk of return grants, investors must make a thorough analysis of objectives and results expected from the investment, according to the application form on:

- tangible or intangible, acquired by the project
- modernized production-area (agreed by the project)
- increase in turnover
- number of jobs created and maintained.

Based on projected turnover the required financial analyses should be forecasts. The most effective way of forecasting the balance sheet and profit and loss is correlated with the future turnover; some elements are dependent, varying in proportion to sales volume, while others are independent, due to other factors. Considering the methodology presented in the previous chapter, below we generated an annual turnover modeling for an existing Romanian company which tried to access European funding.

Table 1. Modelation of the Annual Turnover

Indicator	Year 0	Year I	Year II	Year III	Year IV	Year V
Annual turnover	7,421,224	7,725,075	8,057,275	8,404,875	8,852,475	9,307,775
Production Sales	7,419,073	7,722,924	8,055,124	8,402,724	8,850,324	9,305,624
Sale of Goods	2,151	2,151	2,151	2,151	2,151	2,151
Yearly forecast the annual turnover growth rate	-	4.09%	4.30%	4.31%	5.33%	5.14%

Source: own calculation

As observed in the first year after realization of the proposed investment will be obtained an increase with 4.09% of the annual turnover, which later will stabilize and will have annual growth increase rates between 4.30%-5.33%, in close correlation with the expected annual growth rate of the industry. Since realistic annual growth rate was proposed for the annual turnover in the years which are following the investment, the company was capable to maintain and even surpass the forecasted growth rate.

Conclusions

The previous realized analysis shows the importance of proper generation/modeling of the annual turnover in an investment project. Several methods were presented and case study was realized. Since the annual turnover constitutes the basis for the entire financial analysis it is very important that a realistic growth rate is used. Otherwise the provisions within the financial analysis of the investment (including CBA), the project implementation strategy and later the plan for the utilization of the newly realized investment might prove difficult to be fulfilled. Further studies should be carried out, especially in Romania, regarding the best method which should be adapted for Romanian case studies, taking into considerations all the particularities of the Romanian companies.

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