

THE MANAGEMENT OF THE PERFORMANCE THROUGH THE BUDGET OF THE INVESTMENTS

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Abstract:

Companies operate in a highly competitive, constantly changing environment and in varying economic conditions. Therefore, budgets prove to be a support tool in the decision-making process, able to suggest to managers the best strategies for achieving the objectives.

The company's investment budget explains the planned spending with the fixed assets. Determining of the information included in this budget involves a thorough analysis of the estimated costs and benefits of projects which are analyzed.

The process of establishing the investment budget is very important for the future of the company because decisions regarding investment, perhaps more than any others, determine the success or failure of the company. Choosing the investment is made in accordance with the company's overall strategy that may pursue the cost reduction, improving of the performance and adaptation to environmental and social requirements.

Keywords: investments, performance, budget, decision, financial plan

JEL classification: M11, M41

1. Introduction

The work presents and analyzes a subject of great interest to businesses and proposes the investments budget as a tool to increase organizational performance. The issue is treated by highlighting the importance of the investments budget in order to reduce costs and improve performance and adaptation to environmental and social requirements.

The company's investment budget details the planned spending of the fixed assets and it is the result of a whole process of analysis and decision on which projects should be included in the investment budget. On a foreseeable period of time, usually 5 years, it presents the main objectives

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of the firm in investment area, the actions to be carried out to achieve the objectives, and sources of funding.

In the first part of our work we performed a description of the concepts that define the enterprise investments. Also, the financing plan is presented, which shows the situation of balancing the financing needs with the financing sources, and the methods of evaluating investments. To achieve this objective we have used qualitative and quantitative research methodology, being analyzed many scientific works from the specialty literature.

In the second part of the work, we aim to present a practical model of investments budget.

The results of this research can be used for management decision support.

For this research, the bibliography includes books, articles and studies the source both Romanian and foreign literature.

2. The importance of investments management through budget

The investment is the act accomplished in order to acquire new means of production, to improve performance or to involve capital in an economic activity, a business, etc. It is a key element of the development of the company and of increasing its profitability.

The integration of investment in the program of the firm as well as the decision of starting an investment must be made after a detailed study on the necessity, appropriateness and efficiency.

There are different types of investments:

- Physical investments (for example: replacement investments, capacity investments, productivity investments, innovation investments – in case of the launching of a new product or a new activity etc.)
- Financial investments (for example: sharing to capital of the other companies, fusions etc.)
- Intangible investments (for example: research – development, commercial investments, publicity, market studies, boost of the sales of a product, staff's training etc.)

Policy of investments cannot be separated from the strategy of the enterprise for keeping an investment project, the crossing of more stages being necessary:

1. Development stage (or preselection stage): conception (in connection with the strategy of the enterprise), preselection, preliminary evaluations. Ensuring that the investments projects proposed by the operational respondents are in consensus with the development for long-term and with the strategy of the enterprise: it represents the object of *the financial plan*;
2. Achievement stage (or thorough study stage): market studies, technic studies, human resource studies. Checking of the currency of the projects estimated on commercial, technical, financial and legal plan, through the establishment of the advantages and riskiness which appear for determining economic profitability of the investments and the selection of them: it is the objective of *the evaluation procedures of the investments*;
3. Operational stage (or financial feasibility stage): identification of the flows; using of the selection criteria; analysis of the risks. Following the implementation of investments, in order to comply with the expenditure forecasts that were budgeted, is drawn up *the investments budget*.

2.1. The financial plan

The planning of the investments is found in a previous strategical plan in long-term (between five and ten years), depends of the planning capacity of the enterprise.

The financial plan (operational plan) is a previous financial plan of uses and resources of the enterprise on medium-term (two – five years). It represents a previous inventory instrument which

translates the strategy of the enterprise and which quantifies its developments of the projects and their funding from own funds or the loan funds. The comparing of uses with the available resources will allow determining whether the stable resources will be enough or not for covering the necessary.

The financial fluxes have a fast incidence or a next one about bursary. It is a document which describes the uses and previous resources. It knows from here the precognition of the investments which makes the investments plan.

Of the structural point of view, the Financial and Investments Plan for five years at Mobilux Society S.A is presented in the following table.

Table no. 1

The Financial and Investments Plan

1. Financial Needs	Year					
	N	N+1	N+2	N+3	N+4	N+5
Strategy investment						
Physical	84000	56000	145000	42000	80000	50000
Financial	15000	20000	30000	10000	45000	30000
Exploitation investments (NFRE accession)	42000	53000	60000	55000	70000	65000
Costs for distribution for more exercises	4000	2000	6000	-	7000	-
Lower level of own capital	-	-	-	--	-	-
Defrayment of the financial assignment (Credit on long-term and medium-term)	40000	20000	30000	25000	60000	50000
Paid equities (form the last exercise)	5000	8750	7750	10750	6750	2750
Sum of the financial needs	190000	159750	278750	142750	26850	197750
II. Financial resources						
1. Irredeemable						
Auto funding (after the payment of the equities)	24000	25000	35000	50000	45	40
Expansion of the own capitals (owners' infusions)	35000	-	-	-	-	-
Achievements of assets (cession or sales of the physics, financial and itangible)	10000	5000	-	6000	-	-
Grand for exploitation for net turnover						130

II. Refundable:						
Extension of the financial assignment (credit account on long-term and medium-term)	102000	40000	90000	85000	120	-
Noteholder credits etc.			40000			
Sum of the financial resources	196000	116000	205000	161000	197	200
Annual excess of the constant resources (+) (2-1)	6000			18250		2.25
Annual failure of the constant resources (-) (2-1)		-43750	-73750		-71.25	

For safety reasons, in order to minimize risks, the budget must contain a net surplus of resources against needs (mathematic balance is not satisfactory).

2.2. Preliminary calculations

For establishment of the financial plan, it is necessary the preview of the capacity for auto-funding (CAF) and of the variation of the needing of revolving fund (NFR).

Mobilux Society Corporation studies as compared two projects, A and B, for development of the production capacity. The company expects from the project A and project B a profitability of minimum 15%. Quota of the income tax is 16%.

Features of the A project

Period: 5 years

Estimated turnover:

Years	N+1	N+2	N+3	N+4	N+5
Turnover (ron)	80000	100000	140000	120000	100000

Margin of the variable costs: 60%

Annual fixed costs (excluding amortization): 7000 ron

Normative revolving fund needs: 28.8 days from turnover

Investment: 1 equipment (in-line amortizable in 7 years): 84000 ron

Receipt of the equipment: the end of the N year

Start to work: March 10, N+1

Producer's payment: February, N+1

The residual value in the end of the N+5 year: the same with carrying amount

Features of the B project

Period: 5 years

Estimated turnover:

Years	N+1	N+2	N+3	N+4	N+5
Turnover (ron)	70000	80000	110000	120000	110000

Margin of the variable costs: 50%

Annual fixed costs (excluding amortization): 4000 ron

Normative revolving fund needs: 39.6 days from turnover

Investment: 1 equipment (in-line amortizable in 7 years): 77000 ron

Receipt of the equipment: the end of the N year

Start to work: March 10, N+1

The residual value in the end of the N+5 year: the same with carrying amount

Table no. 2

Turnover for previous exploitation for project A (ron)

Years	N+1	N+2	N+3	N+4	N+5
Turnover	80000	100000	140000	120000	100000
Margin of the variable costs (60% CA)	48000	60000	84000	72000	60000
Amortization	12000	12000	12000	12000	12000
Another fixed costs	7000	7000	7000	7000	7000
Result from exploitation (before taxing)	29000	41000	65000	53000	41000
Tax on profit (16%)	4640	6560	10400	8480	6560
Net result from exploitation	24360	34440	54600	44520	33440
+ amortization	12000	12000	12000	12000	12000
= CAF (cash flow) of exploitation	36360	46440	66600	56520	46440

The fluctuation of the needing of revolving fund (NFR)

The need for operating revolving fund is the part of cyclical assets financed from resources cyclical, respectively the part of current assets consisting of stocks (St) and receivables (R), which is not covered by exploitation debt (Dex):

$$\text{NFR} = (\text{St} + \text{R}) - \text{Dex}$$

If this difference is positive, it means a plus of temporal needs relate with temporal sources possible to be locked up.

NFR is proportionate with the turnover, but the boost of NFR must be previous with the boost of the turnover.

$$\text{The previous of turnover of the year N+1} * \text{Normative NFR (in day from turnover) / 360} = \text{The previous NFR at the end of N year}$$

$$\text{NFR at the end of N+1} - \text{NFR at the end of N} = \text{The boost of NFR in N+1}$$

Table no. 3

The count of NFR

Years	N	N+1	N+2	N+3	N+4	N+5
Turnover		80000	100000	140000	120000	100000
NFR (8% turnover)		6400	8000	11200	9600	8000
The boost of NFR	6400	1600	3200			
The drop of NFR				1600	1600	8000

*) NFR is 28.8 days = 8% from turnover

2.3. Rating way of investments

The choosing of an investment in a safe universe consists in passing-by of the risk of the operation and it executes independent of its financial way. The venture capitalist can evaluate in precise way the fluxes of idle money from the project.

The standard of choice of the investment in a safe universe allows for economical profitability of the hired projects which it can be evaluated helped by the ways based on update of the reserve fluxes: net actual value, value of profitability, internal-rate of profitability.

Net actual value (VAN) means the excess of capital from the end of the life old investments (including residual value).

The VAN standard is used for evaluation and comparison of the investment projects which have the same terms: the same sum, same period and same level of risk. This way needs the choosing of a rate of update which is fixed and the level of minimum rate of profitability asked by enterprise.

VAN of a project compares the cost of investment and the sum of fluxes of idle money, which are updated with the update rate. According to this standard, if $VAN > 0$ this means that the investment is profitable and the project should be admitted because it will allow the drawback of the costs for investments, gratification of the requirement for the minimum rate of profitability and loosening of an excess of updated capital, if $VAN < 0$ the projects must be denied.

$$VAN = -I + \sum_{i=1}^n \frac{FL_i}{(1+t)^i}$$

I = cost of investment (market price, accessories, boost of NFR);

FL_i = net flux of idle money for i year;

n = period of investment life;

t = update rate

Table no. 4

The count of monetary flux (ron)

Years	N	N+1	N+2	N+3	N+4	N+5
Getting equipment	-84000					
Boost of NFR	-6400	-1600	-3200			
Decrease of NFR				1600	1600	8000
Exploitation CF		36360	46440	66600	56520	46440
Net residual value						24000
Monetary flux	-90400	34760	43240	68200	58120	54440
Update monetary flux	-90400	30200	32700	44800	33200	27100

VAN for the project A:

VAN (rate 15%) = $-90400 + 34760 \cdot (1.15^{-1}) + 43240 \cdot (1.15^{-2}) + 68200 \cdot (1.15^{-3}) + 58120 \cdot (1.15^{-4}) + 54440 \cdot (1.15^{-5}) = -90400 + 30200 + 32700 + 44800 + 33200 + 27100 = -90400 + 168000 = 77600$ ron.

Conclusion: according to this standard, the project is profitable because:

- it admits the drawback of costs for investments;
- it answers completely for minimum profitability rate of 15%;
- it generates an updated surplus of 77600 ron.

Profitability index (IP) accentuates net actual value expected for an initial investment cost equal with unity. This way keeps the choice between 2 projects, it is meant a good way of VAN and it is used like a help of this for maximum account for invested money. According to this standard, an

investment is profitability if $IP > 0$, $(1 + VAN/I) > 0$. The rating of this coefficient is made with reference of update value of net treasury fluxes (returns) and of investment cost, like this:

$$IP = \frac{\sum_{i=1}^n FL_i \times (1+t)^i}{FL_0}$$

Or, equivalent:

$$IP = 1 + \frac{VAN}{I_0}$$

For example, $IP = 1 + VAN/I = 1 + 77600 / 84000 = 1 + 0.9238 = 1.9238$.

According this way, the A project is profitable because $IP > 1$. Thus, for every 1 ron invested will be obtained 1.9238 ron.

Internal rate of profitability (RIR)

It represents the update rate of next treasury flux for $VAN=0$. It is calculated through consecutive approximation and linear interpolation. It signifies the threshold limit of profitability for selecting profitable investments by the management of the enterprise.

$$RIR = R_{\min} + (R_{\max} - R_{\min}) \times \frac{VAN_{R_{\min}}}{VAN_{R_{\min}} - VAN_{R_{\max}}}$$

R_{\min} , R_{\max} = minimum rate and maximum rate for update, used for VAN computation.

VAN (for minimum update rate of 15%) = 77600 ron.

VAN (for maximum update rate of 20%) = $-90400 + 34760 \times (1.20^{-1}) + 43240 \times (1.20^{-2}) + 68200 \times (1.20^{-3}) + 58120 \times (1.20^{-4}) + 54440 \times (1.20^{-5}) = -90400 + 29000 + 30000 + 39500 + 28000 + 21900 = -90400 + 148400 = 58000$ ron.

It is found internal rate of profitability for project A:

$$RIR = 15\% + (20\% - 15\%) \times \frac{77600}{77600 - 58000} = 34,8\%$$

If RIR is bigger than capital cost or reference profitability rate, then the investment is profitable.

For aggregate the projects to investment budgets, the usual process is:

- General management establishes the method of financing overall, according to the sources of financing, respecting the financial balance;
- It is constituted a reserve for unforeseen events, approximately 10...20% of the volume of all resources;
- The projects are selected taking into account the arbitration strategy and the own policy, after calculating the internal rate of profitability. To choose between two projects A and B will be used the profitability index method (VAN/C) and the method of internal rate of return (RIR). Thus, the project A is preferred against project B when:

$$VAN_A / I_A > VAN_B / I_B$$

and

$$RIR_A > RIR_B$$

Results of the analysis of projects and choosing the most profitable project are presented in the following table.

Table no. 5

Comparison between projects			
Metoda	Project A	Project B	Choosing
VAN	77600 ron	45500 ron	Project A
Index of profitability	92.38%	59.09%	Project A
RIR	34.80%	29.30%	Project A

Conclusion: After the make counts it results that the both projects are profitable. The index of profitability IP gives an advantage to project A. The index RIR shows that the project A is better and so it can be kept.

In the time of exercise, can be changed the economic terms, can appear new priorities, the manager could change or cancel some investments.

2.4. Investments budget

Investment budget continues the information from investments plan. This is done year by year. For every year, it makes financial consequence of investments. The budget is very detailed and it makes investments in individual way.

For making an easy following of the annual budget, it is analyzed the budget on operational responsible which must be careful to not pass of the budget.

The costs for a constructed or delivered investment are presented in 3 different moments:

- *Hired time*, the date when the investment is done, when any severance makes consequence for enterprise especially in costs.
- *Different times of reception*, when the product activities have start and also the profitability of the projects.
- *Payment times*, dates for treasury fluxes.

If the investments projects are not so many, this information will be in the same budget. If the projects are many, it will be 3 budgets: hired budget, reception budget and payment budget.

The Investments budget of Mobilux Company for the N+1 year is shown in the following table:

Table no. 6

Investments budget										
Explanation	Investment value	Recepti on date	Using time	Jan	Feb	Mar	Apr	May	Jun	Total
Buying equipment	84000 (without TVA) 100800 (with TVA)	Dec, N	7 years							

Another approved investments which will be bought and used in N+1 year	13000	Feb, N+1	5 years		13000				
	31000	March, N+1	8 years			31000			
	12000	June, N+1	6 years					12000	
									56000
TVA 20%					2600	6200		2400	11200
Sum of the invoice					15600	37200		14400	67200
Payment of trades people					100800		15600	37200	153600

3. Conclusions

Employing of capital reflected in investment budgets represent the engine of companies in order to achieving the performance objectives in the production, social and financial domains. If the company does not made really investments, then, because of outdated technologies and unqualified labor, the production costs may become increasingly unbearable, and the company will lose the bargaining power, the independence and, of course, its market competitiveness.

Aiming adaptation to environmental and social requirements, the company can invest to emphasize its role as corporate citizen by investing in renewable energy or implementing awareness campaigns against pollution. Moreover, some investments can be made to improve the working conditions of employees and social climate in the company.

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