CASH-FLOW BUDGETING AND AVOIDING RISKS WITHIN COMPANIES

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Abstract: *There are two major accounting systems worldwide at the moment. One of them is the accrual accounting, defined by gaps between recognizing the expenses and the moment of payment and, also, between recognizing the income and the moment of cashing. The second one is the accounting, defined by the lack of the mentioned above. Thus, if within a cash accounting a expense-income budget is identical with a payment-cashing budget, within an accrual accounting, they are different, the fair image of the company's activity being revealed in a much more appropriate way by the cash-flows budget, avoiding, in this way, various risks. The present paper aims to emphasize, especially in a practical way the steps needed to be followed in order to elaborate, within an accrual accounting as Romania has, a cash-flows budget in a very accurate manner. These steps involve: establishing objectives and activities for the future activity, selecting the suppliers, determining the optimal amount of stock, calculating the expenses involving the HR, setting the selling prices, evaluating the risks.*

Key words*: accrual accounting, cash-flows, budgeting, steps, risk*

INTRODUCTION

The purpose of the payments - receipts budget is to correlate the money/ monetary inflows with the outflows in order to avoid getting in the situation where the economic entity is unable to pay or, on the contrary, it has surpluses with a useless character [5].

The liquidity information elements provide the possibility of foreshadowing the future of the entity if the maturities related to the short-term debts and debts are taken into account [11].

At the level of the activity of any company, permanently new debts arise, but also availability and debt as sales, purchases, but also expenses of any kind, reasoning for which the information provided through the balance sheet are not sufficient for the entity in order to work properly. Therefore, the need for short-term forecasting information emerges, thus highlighting the calendar year [9].

The treasury management, in the forecasting stage, foresees the receipts and payments of the economic entity, both quantitatively and qualitatively, including the taxes included in these amounts, while, for the receipts, it is necessary to provide their regulation mode for the purpose of their acceleration [15].

The forecasts must be made in a sufficient time amount before the beginning of the year in order to take appropriate action [14]. In most cases, the forecasting period is based on a minimum duration equal to the supply interval to which the obligation extinguishing interval is accumulated, which is why forecasts are carried out over a period of at least six months, without exceeding but one calendar year/ financial year [8]. Subsequently, this period should be broken down into smaller periods, called budgetary periods, depending on the rhythm of the most frequent maturities, which are usually represented by a calendar month [1].

From a budgeting point of view, a separate revenue budget and a payment budget can be established, and then they are combined into a single liquidity budget [14]. This budget is preceded by the preparation of a value added tax/ VAT budget, taking into account the specificity of the receipts and payments related to this tax, as well as the gap that arises between the enforceability and the deductibility of the value added tax/ VAT in relation to which it is calculated the payment tax due to the state budget [6].

Starting from the dependence between the budgets, the idea that the treasury budget really comes from other budgets is outlined. By completing the dependencies between the budgets, the essential operations aimed at the treasury management, can be summarized as follows [2]:

For receipts: receipts coming out from fixed outgoing assets; receipts from customers; interest and dividends received and collected, capital increases through cash contribution, loans, subsidies, but also securities placement sales [4].

For payments: purchases/ inflows of fixed assets; stock purchases/ acquisitions; payments for certain types of expenses, other than those for the purchase of stocks; interest and dividends paid, repayments of loans, purchases of securities and taxes [4].

The treasury budget must take into account certain discrepancies compared to other budgets [3]. As a rule, the corresponding receipts are made after the sales, and the dates on which the receipts or payments will be made can be accurately predicted or based on statistical analyzes.

In the following, using the table below, the difference between an accrual accounting system and a cash accounting system is highlighted [6].

Table 1.

The differences between the accrual accounting system and the cash accounting system

Affects the result / profit only of the accounting structures of effective expenses, but also effective income (classes of accounts 6 and 7)	
Accrual accounting	**Cash accounting**
Gap between recording time at the level of accounting of the actual income / the actual expenses and the moment of the collection / payment of the money	*Timing between recording time at the level of accounting of the actual income / the actual expenses and the moment of the collection / payment of the money*

Source: own elaboration

MATERIALS AND METHODS

In the context of the elaboration of this case study, it is considered the context of an entity placed in the municipality of Arad, which has as object of activity the retail trade and which wishes to expand its economic activity, also producing homemade noodles. In this context, we have an Excel work interface in the foreground, through which several steps have been taken in substantiating/ generating the payment budget - receipts, monthly, for 12 months in advance, but also annually for the next 4 years, accordingly to the new business component [7].

It is emphasized once again the importance of the budget of payments - receipts/ cash flows, considering the presence in Romania of an accrual accounting system, which does not ensure the correlation of the moment of recognition of an accounting expense with the moment of its payment, respectively of the moment of recognition of an accounting income with the moment of its collection [10].

In order to complete the present study, various research methods are used, such as: the analysis, the synthesis, the induction, the deduction, the brainstorming or the case study [12].

RESEARCH RESULTS

The activity of the company, as classified in accordance to the National Economic Activities Classification is 4719 - Retail sale in non-specialized stores with predominantly selling of food products.

According to the previously presented descriptive part, we start the research project itself with the establishment of the main objective, which automatically involves the specific objectives, but also the setting of the necessary activities in order to achieve these objectives.

Table 2.

Grounding of the general objective of the business idea, presentation of the specific objectives, but also of the necessary activities

General objective (SMART)
The present project intends, within a 5 calendar years interval, to start and develop a collateral activity at the level of the economic entity, in the field of public food, respectively the production of homemade noodles.

Specific objectives (ACTIVE)		Activities	
O1	Identification of the target market segment	A1	Market research
O2	Selection of suppliers of both material resources and services, as well as of human resources	A2	Contacting the suppliers, but also negotiating the clauses and finally creating the working team
O3	Elaborating the project budget	A3	Forecasting the cash-flows
O4	Correlating the involved costs with the available resources	A4	Cost adjustments according to the available resources
O5	Identifying the project risks	A5	Risk estimation by the scoring method

Source: own elaboration

Considering the above table, one can notice the SMART character of the general objective, but also the dynamic character of the specific objectives, correlated with the specific activities. It is emphasized the breakdown of the general objective into several, more precisely five specific objectives, correlated with five activities.

In the following, the selection of the suppliers of material resources is made under conditions of uncertainty based on the decision tree method. Suppose there are three suppliers and three material resources to be calculated, to be supplied, the first with an importance of 30% in the finished product, the second with an importance of 50% in the finished product, and the last with an importance of 20% in the finished product.

The selection will be made in favor of the supplier who has a minimum total cost for the three resources, as evidenced by the situation that will be highlighted below:

Table 3.

Presentation of the initial matrix regarding the suppliers of material resources

Suppliers/Resources and probabilities	**Resource 1**	**Resource 2**	**Resource 3**
	0.3	**0.5**	**0.2**
Supplier 1	19lei	35lei	80lei
Supplier 2	15lei	25lei	10lei
Supplier 3	18lei	33lei	6lei

Source: own elaboration

Following this initial matrix, the following decision tree is outlined:

Table 4.

Presentation of the decision tree regarding the suppliers of material resources

Suppliers/Resources and probabilities	Resource 1	Resource 2	Resource 3	Total
	0.3	**0.5**	**0.2**	
Supplier 1	5.7	17.5	16	39.2
Supplier 2	4.5	12.5	2.0	19.0
Supplier 3	5.4	16.5	1.2	23.1

Source: own elaboration

We note, as a result of the analysis, the fact that the balance tilts in favor of the supplier with the number 2, in accordance with the result returned by the working interface, in this way, having a total cost of acquisition of 50 lei for an amount of standard type of raw material:

Table 5.

Presentation of the result of the decision tree regarding the suppliers of material resources

Result	19
Supplier	Supplier 2
Total acquisition cost	50lei

Source: own elaboration

As regards the service suppliers, based on the initial matrix method, one opts for that alternative of minimum value, taking as an essential criterion the cost of purchase, which represents a minimum criterion.

Table 6.

Presentation of the result of the decision tree regarding the suppliers of material resources

Suppliers/Services	Services - Acquisition Cost - Minimum Criterion
Supplier 1	80lei
Supplier 2	30lei
Supplier 3	29lei

Source: own elaboration

Naturally, the interface will return the purchase option with number three.

Table 7.

Presentation of the result regarding the service suppliers

Result	29lei
Supplier	Supplier 3

Source: own elaboration

In the following, it is desired to estimate the need for material resources using the Wilson - Whitin model. The assumptions from which the approach is started are highlighted in the following, specifying that the unit supply price is estimated on the basis of the previous matrix calculations. This is generated by corroborating the estimated acquisition cost in the case of material resources, on the one hand and the estimated acquisition cost for the services involved in the new and current productive and commercial process, on the other.

Table 8.

Assumptions for substantiating the stock standardization

The yearly supply needed	1000 units
The cost of preparing a supply	8lei
Supply price	50lei
Unit cost of storage per unit value of stock	0.3lei/1 leu stock

Source: own elaboration

Based on this valuable information, the interface, based on the Wilson Whitin model, performs the optimal stock estimation, highlighted in the following:

Table 9.

Optimal stock returned by the Wilson-Whitin model

Optimal stock	1067units
	33lei

Source: own elaboration

Focusing so far on the research approach on inputs, naturally, it is of an overwhelming importance also the outputs. In the following, customer management will be brought to the forefront, based on the ABC method. Their grouping, in conjunction with the facilities provided, is highlighted in the following.

Table 10.

Differentiated management, based on the ABC method, of the estimated clients, together with the facilities provided

Group A	High attention	3 types of discounts
Group B	Medium attention	2 types of discounts
Group C	Low attention	1 type of discounts

Source: own elaboration

At the same time, a quota of 3% for the first type of discounts, 20% for the second type of discounts and 50% is proposed, once a month, at the end, for the third type of discounts, specifying that where several categories of discounts are granted, there will be avoided the situation when applying discount to discount. At the same time, the potential number of clients for each group is estimated, with the Excel work interface returning the following results:

Table 11.

Estimated sale price differentiated by customer groups and total

Group	Number of clients	Unit Buying Cost	Buying Cost	Surplus value (Trade addition to trade / Value transformation to production)	Selling Price	First type of discount	Second type of discount	Third type of discount	Sale price adjusted with discounts	Total Selling Price
				0.65		0.03	0.20	0.50		
Group A	15	50lei	750lei	488lei	1238lei	37lei	240lei	480lei	480lei	13684
Group B	50	50lei	2500lei	1625lei	4125lei	124lei	800lei		320lei	
Group C	125	50lei	6250lei	4063lei	10313lei	309lei			10003lei	

Source: own elaboration

In parallel, by customer groups, the sales price and the discounts granted, in a numerical and graphic manner can be highlighted as follows:

Table 12.

Parallel image of the sales price and the differentiated discounts by customer groups

Group	Selling Price	First Type of Discounts	Second Type of Discounts	Third Type of Discounts
Group A	1238lei	37lei	240lei	480lei
Group B	4125lei	124lei	800lei	0lei
Group C	10313lei	309lei	0lei	0lei

Source: own elaboration

In the following, the human resource required for each activity is envisaged and, depending on the importance of each activity, the importance that can be selected within the interface on the basis of a list, a base salary/ starting salary of 1,000 lei for this activity is multiplied according to the importance of the activities with an appropriate multiplication coefficient. Thus, for an activity of high importance, this coefficient of multiplication will be 2, for an activity of medium importance, this coefficient of multiplication will be 1.5, and for a low importance of an activity, this coefficient of multiplication will be 1. It is considered that the last three activities do not involve any additional human resources, which can be carried out without problems by the existing human resource. The results in this regard are presented in the following:

Table 13.

Human resource management in conjunction with the estimation of additional wage costs

Activities	Necessary Number of Employees	Monthly Wages Depending on the Activity Importance	Total Wages on Activities	Total Monthly Wages
A1	2	1500lei	3000lei	4000lei
A2	1	1000lei	1000lei	
A3	0	800lei	0	
A4	0	1500lei	0	
A5	0	1500lei	0	

Activities	Importance	Multiplication Coefficient	Basis Wages	Basis Wages Influenced by the Multiplication Coefficient
A1	High	2.0	1000lei	2000lei
A2	Medium	1.5	1000lei	1500lei
A3	Low	1.0	1000lei	1000lei
A4	Medium	1.5	1000lei	1500lei
A5	Medium	1.5	1000lei	1500lei

High
Medium
Low

Source: own elaboration

There can be noticed the estimation of additional expenses of 4,000 lei related to wages in order to substantiate the proposed additional activity, these being paid at 30 days.

When it comes to front the risk analysis, it is noticeable to obtain a medium to high risk, but nonetheless acceptable, so that the business can be started without problems. This risk has as substrate the slightly higher price of these bio products, the fierce competition, the limited financial resources of the consumers in the target markets, in conjunction with their psychology of buying products at lower prices, of lower quality, but in higher quantity.

The situation generated within the working interface is as follows:

Table 14.

The scores method of estimating/ determining the risk scores associated with a new business ideabut also with the development of an existing one

Questions	Answer Options			Answers	Scoring/	Coefficient Assigned to Each Question	Multiplication of the scoring and of the coefficient
	1	2	3				
1.The project proposal is:	New	Combining new and old.	Old	1	3	5	15
2. The project manager is:	Without experience	With a 2-4 years experience	With a long experience	1	3	5	15
3.The duration of the project is:	Longer than 12 months	Longer than 6 months	Shorter than 6 months	2	2	3	6
4.The number of functions/ departments involved is:	More than 3	2-3 departments	1 department	1	3	5	15
5. The field of application of the project is:	New for the whole team	New for certain members of the team	Well-known for all the members of the team	1	3	4	12
6.The project team is:	New	Combined	Old	1	3	3	9
7.The budget was elaborated:	By the team members	Both by the team members and the financier	By the financier	2	2	5	10
8. The temporal development of the activity is established:	By the team members	Both by the team members and the financier	By the financier	1	3	5	15
9. The extent to which the project manager is supported by the team members is:	Low	Medium	High	3	1	5	5
10. The project has an interface:	For the whole business environment	For the company proposing it	It does not involve	2	2	4	8

Source: own elaboration

The estimation results will be highlighted in the following:

Table 15.

Estimation of the risk involved in the present business idea

Total	110 points	Project result	Medium risk

Interpretation	
Value	Interpretation
44-66	Low risk
67-112	Medium risk
113-132	High risk

Source: own elaboration

Having fulfilled the aforementioned premises, the cash-flow budgeting is carried out monthly for 12 months in advance and yearly for 4 years in advance, taking into account the fact that a loan of 50,000 lei is contracted for a period of 5 years, with a monthly interest rate of 1%, repayable on the basis of two annual installments in June and December. Also, it is realized in the context of instrumentation of the idea of business development, an investment in the amount of 5,000 lei, both the loan and the investment taking place, in the first month of the new activity.

The working hypotheses in order to substantiate the budgets are presented in the following:

Table 16.

Working hypotheses in order to substantiate the entity's budgets

Periodicity of receipts (days)	13684	30			
The month when the loan is received	50000	1			
Periodicity of payments (days)	4167	90			
The month in which the investment is made	5000	1			
Wage pay gap	4000	30			
CAS	832				
CASS	208				
CAM	20				
Wages and contributions	5060				
Payment gap of services	29	60			
Total number of installments / Number of installments per year / Months of repayment	5000	10	2	6	12
Monthly interest rate	500	0,01			
The number of years ahead from the forecast horizon		1	2	3	4
Yearly loans		0	0	0	0
Yearly investments		0	0	0	0

Source: own elaboration

Regarding the budgets, we note the presence of a positive / favorable cash - flow from the first year of activity, having a fluctuating evolution, but at positive values for the next 4 years. Thus, although seemingly risky, the idea proves extremely favorable in terms of the financial results that have been obtained. If at the level of a budget of expenses - incomes, at the level of the first year of activity, the result is possible to have been obtained in the form of loss, really, monetary, the economic entity has a favorable situation considering the fact that the contracted loan constitutes an entry of money , without being recognized as an accounting income.

The monthly budget for the first year of activity is highlighted in the following (Table 17):

Table 17.

Cash-flows budget for 12 months in advance

Flow/Month	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
Turnover	0	13684	13684	13684	13684	13684	13684	13684	13684	13684	13684	13684	150527
Received Loans	50000	0	0	0	0	0	0	0	0	0	0	0	50000
Material Resources	0	0	0	4167	4167	4167	4167	4167	4167	4167	4167	4167	37500
Investments	5000	0	0	0	0	0	0	0	0	0	0	0	5000
Wages and Contributions	0	5060	5060	5060	5060	5060	5060	5060	5060	5060	5060	5060	55660
Services	0	29	29	29	29	29	29	29	29	29	29	29	319
Repayable Loans	0	0	0	0	0	5000	0	0	0	0	0	5000	10000
Interests	500	500	500	500	500	450	450	450	450	450	450	400	5600
Cash-flow	44500	8095	8095	3929	3929	-1021	3979	3979	3979	3979	3979	-971	86448

Source: own elaboration

The yearly budget for the following 4 years is highlighted in value and graphically in the following:

Table 18.

Cash-flows budget for 4 years in advance

Flow/Year	**N**	**N+1**	**N+2**	**N+3**	**N+4**
Turnover	150527	164211	164211	164211	164211
Received Loans	50000	0	0	0	0
Material Resources	37500	50000	50000	50000	50000
Investments	5000	0	0	0	0
Wages and Contributions	55660	60720	60720	60720	60720
Services	319	348	348	348	348
Repayable Loans	10000	10000	10000	10000	10000
Interests	5600	4400	3200	2000	800
Cash-flow	86448	38743	39943	41143	42343

Source: own elaboration

CONCLUSIONS

Budgeting is an essential element of the present and, in particular, of the future activity of the economic operators [6]. We selected the budgeting from the point of view of the cash flows as it is more relevant at the level of an accrual accounting system, such as the Romanian one. In such a system, the moment of the recognition of an expense structure does not coincide with the moment of its payment (for example, the wages expense is recognized during the month in which the activity is carried out and the l payment of wages takes place next month). At the same time, the moment of the accounting recognition of an income does not overlap with the moment of its receipt (for example, the invoicing of goods, with subsequent collection, within 90 days, generates the recognition of an income at the present moment, the collection being realized over 90 days) [6].

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