

# Guidelines for designing, configuring, and implementing relevant accounting policies for a pharmaceutical entity

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## Abstract

The pharmaceutical sector represents a major economic and social area of interest, with unique activities that require a tailored design of accounting policies. This paper aims to analyze the main aspects of accounting treatments and applicable regulations in this field, as well as their impact on the financial performance of an entity in the pharmaceutical retail sector. Within the specialized context of the pharmaceutical industry—characterized by strict regulations, rapid technological developments, and the complexity of research and development activities—accounting policies are required to accurately reflect economic reality, particularly concerning inventory valuation, revenue recognition, depreciation of fixed assets, and accounting for licenses and patents.

**Keywords:** community pharmacy; pharmaceutical product commercialization; legal framework; social security reimbursement; financial performance; accounting treatments

## 1. Introduction

The purpose of this paper is to provide an overview of the conceptual, practical, and legal approaches regarding the organization and operation of a pharmacy. To this end, the main accounting treatments and policies adopted within the case study of Farmacia Algevita S.R.L. have been highlighted, followed by an analysis of the key economic indicators relevant to the financial performance of the pharmaceutical entity.

## 2. Methodology

### 2.1 Conceptual, Practical, and Legal Approaches Regarding the Organization and Operation of Pharmacy Activities

Pharmaceutical care is an essential component of the national public health system and is focused on optimal patient counseling, prevention and health education, pharmacovigilance, as well as a multidisciplinary approach aimed at providing a unified and integrated treatment

through the two main types of pharmaceutical services: essential pharmaceutical services and advanced pharmaceutical services.

### **Internal Organization of the Pharmacy**

The nature of pharmaceutical activity requires strict regulations regarding hygiene conditions and specific functional areas:

- Dispensing area (oficina) – the space for dispensing medicines and other products;
- Compounding area (receptura) – the space for preparing magistral formulas prescribed by a physician;
- Laboratory – the space for preparing officinal prescriptions in accordance with the current Romanian Pharmacopoeia;
- Storage (depozit) – the space for storing medicines and other parapharmaceutical products;
- Sanitary-hygienic spaces;
- Office.

The organizational structure of the pharmaceutical unit consists of qualified healthcare personnel, as follows: a chief pharmacist (pharmacist-in-charge), a pharmacist, and a pharmacy assistant. During the 8-hour workday, the presence of at least one pharmacist is mandatory.

The legislative framework underpinning the organization of pharmaceutical activities includes:

- **Law no. 95/2006** on Health Reform, Title XVII – Medicines;
- **Law no. 266/2008** – Pharmacy Law;
- **Order of the Ministry of Health no. 962/2009** for the approval of regulations on the establishment, organization, and operation of pharmacies and drugstores, with subsequent amendments and additions;
- **Order of the Ministry of Health no. 75/2010** for the approval of Good Pharmaceutical Practice rules;
- **Order of the Ministry of Health no. 639/2006** for the approval of the list of products, other than medicines, that can be held and dispensed through pharmacies.

## **Guidelines on Special Legislation and Authorization Requirements**

Pharmaceutical activity is conducted through community pharmacies, closed-circuit pharmacies, and drugstores, all of which fall under general, economic-financial, and specific legislative frameworks, as illustrated in the figure below:

Community pharmacies, local distribution offices, closed-circuit hospital pharmacies, and drugstores hold and dispense, at retail, only medicines with a marketing authorization issued in accordance with the law, and operate under Pharmacy Law no. 266/2008, with subsequent updates. All these entities must have an operating license issued by the Ministry of Health after fulfilling strict requirements.

A community pharmacy is established and operates within a commercial company organized according to the provisions of [5] , and its scope of activity includes:

- Retail sale of pharmaceutical products – CAEN code 4773: Retail sale of pharmaceutical products in specialized stores;
- Preparation of magistral and officinal medicines and their sale;
- Sale of cosmetics, parapharmaceuticals, individual-use medical devices and equipment, consumables for these devices, dietary supplements, and foods for special medical purposes.

The local College of Pharmacists can approve whether a pharmacy can be established in the chosen locality. According to the law, licenses are granted based on demographic criteria confirmed by the Population Records Service, as follows:

- In Bucharest – one pharmacy per 3,000 inhabitants;
- In county capitals – one pharmacy per 3,500 inhabitants;
- In urban and rural areas – one pharmacy per 4,000 inhabitants.

Additionally, the geographic criterion must be respected – the minimum distance between community pharmacies, certified by a document issued by an authorized surveyor: at least 250 meters in urban areas and at least 500 meters in rural areas, according to a government ordinance draft amending and supplementing [16].

The minimum equipment required for pharmacy authorization, according to the law, includes specific furniture, equipment and devices (for monitoring storage conditions of medicines,

software for inventory management and pharmaceutical reporting to the Social Security System), as well as protective equipment and other consumables.

If a positive response is received regarding the establishment of a pharmacy from the College of Pharmacists of Romania, a list of documents required for the application file to be submitted to this institution will also be provided. The College will visit the site for the issuance of the approval:

- Positive approval → Ministry of Health – General Pharmaceutical Directorate, where the list of documents required for the operating license is issued.

Obtaining the license is based on the request for planning the pharmaceutical inspection and the documents submitted to the Ministry of Health – General Pharmaceutical Directorate. The operating license is issued in the name of both the legal entity and the chief pharmacist. Therefore, if the chief pharmacist changes, a new license is required.

Thus, the documents required for the operation of a pharmaceutical unit include the operating license issued by the Ministry of Health and the annual commercial operation approval issued by the local City Hall based on the contract for the commercial space.

## **2.2. Accounting Treatments and Policies Adopted by Farmacia Algevita S.R.L.**

General information about company: S.C. Farmacia Algevita S.R.L. is an independent open-circuit (community) pharmacy established in 1994. Fiscal identification data: VAT number RO 6272780, Trade Registry number J40/17700/1994. Registered office address: Bucharest, Sector 6, Bd. Iuliu Maniu, no. 51, Block 22, Sc B, Apt. 56. Operating point address: Bucharest, Sector 5, Sos. Sălaj, no. 1, ground floor. Main activity: CAEN code 4773 – Retail sale of pharmaceutical products in specialized stores.

The company applies the VAT system on invoicing, uses the perpetual inventory method, and applies the FIFO method for the cost of goods sold.

From a fiscal perspective, S.C. Farmacia Algevita S.R.L. is:

- Registered for VAT purposes and applies VAT on invoicing;
- A profit tax payer;
- A payer of payroll tax and social contributions.

A relevant indicator is the average salary within the pharmacy – 5,837 RON. The company has 8 employees, including: one chief pharmacist, two pharmacists, two pharmacy assistants, one

accountant, one Human Resources officer, and one auxiliary staff member, according to the organizational chart below:

The accounting operations within the analyzed flows are:

- a) For inflows/purchases:
  - Purchases required by law for pharmacy authorization;
  - Purchase of goods on trade credit;
  - Preparation of N.R.C.D. (receiving documents) with recording of the retail selling price;
  - Purchase of goods in month N and their receipt in month N+1;
  - Payment of trade liabilities;
  - Receipt of samples and price reductions from medicine suppliers.
- b) For outflows/sales:
  - Cash/card sales to various customers and sales to the Social Security System (C.A.S.);
  - Collections from operating activities;
  - Inventory reduction for goods sold during the current month.

We will also analyze the accounting treatments related to stocktaking and those concerning expired medicines.

#### Accounting treatments for acquisitions under legal provisions

- Reception of furniture for storage and display of medicines:

<b>214</b>	=	<b>404</b>	
Fixtures and fittings		Suppliers of non-current assets	<b>57.715 lei</b>
			48.500 lei
<b>4426.1</b>			9.215 lei
Input VAT – Goods 19%			

The monthly depreciation of the investment in specific furniture is recorded over a period of 9 years, using the straight-line method (monthly value = 535 RON), according to the fixed asset sheet:

<b>6811</b>	=	<b>2814</b>	<b>535 lei</b>
Depreciation of non current assets		Depreciation of other tangible	

fixed assets

Acquisition of a calibrated thermohygrometer for monitoring medicine storage conditions:

<b>%</b>	=	<b>404</b>	
		Suppliers	<b>476 lei</b>
<b>303</b>			400 lei
Materials in the form of small inventory			
<b>4426.1</b>			76 lei
Input VAT – Goods 19%			

The thermohygrometer is put into use, according to the handover report:

<b>603</b>	=	<b>303</b>	
Materials in the form of small inventory		Materials in the form of small inventory	<b>400 lei</b>

Acquisition of a software license for a management and reporting program for the Health Insurance House (C.A.S.):

<b>%</b>	=	<b>404</b>	
		Suppliers of non-current assets	<b>11.900 lei</b>
<b>208</b>			10.000 lei
Other intangible assets			
<b>4426.1</b>			1.900 lei
Input VAT – 19%			

The depreciation of the software license is recorded using the straight-line method over a period of 5 years, according to the fixed asset sheet:

<b>6811</b>	=	<b>2808</b>	
Depreciation of non current assets		Amortization of other intangible assets	<b>167 lei</b>

**Accounting treatments for merchandise purchases on trade credit**

- Reception of parapharmaceutical products:

<b>%</b>	=	<b>401</b>	
		Suppliers	<b>1.190 lei</b>
<b>371.1</b>			1.000 lei

Goods purchased for resale 19%	<b>4426.1</b>		
Input VAT – Goods 19%			190 lei
<b>-Reception of medicines worth 1,000 RON, VAT 9%, according to the purchase invoice:</b>			
	<b>%</b>	=	<b>401</b>
			<b>Suppliers</b>
			<b>1.090 lei</b>
Goods purchased for resale (medicines) 9%	<b>371.2</b>		1.000 lei
Input VAT – Medicines 9%	<b>4426.2</b>		90 lei

Farmacia Algevita applies an average commercial markup of 10% to the purchase cost of goods and medicines, thus resulting in the retail price reflected in the goods receipt and discrepancy report, according to the following accounting entries:

The 10% commercial markup and non-recoverable VAT of 19% for parapharmaceuticals are recorded, based on the goods receipt and discrepancy report:

<b>371.1</b>	=	<b>%</b>	
Goods purchased for resale 19%			<b>309 lei</b>
		<b>378.1</b>	
		Price differences on goods purchased for resale 19%	100 lei
		<b>4428.1</b>	
		VAT under settlement 19%	209 lei

A commercial markup of 10% and non-deductible VAT of 9% for medicines are recorded, based on the goods receipt and discrepancy report.

<b>371.2</b>	=	<b>%</b>	
Goods purchased for resale (medicines) 9%			<b>199 lei</b>
		<b>378.2</b>	
		Price differences on goods purchased for resale (medicines) 9%	100 lei
		<b>4428.2</b>	
		VAT under settlement (medicines) 9%	99 lei

Algevita Pharmacy purchases parapharmaceuticals in month N:

<b>%</b>	=	<b>401</b>	<b>11.900 lei</b>
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	Suppliers	
<b>327.1</b>		
Goods purchased for resale in transit 19%		10.000 lei
<b>4426.1</b>		
Input VAT – Goods 9%		1.900 lei

The purchased parapharmaceutical products are received in month N+1:

<b>371.1</b>	=	<b>327.1</b>	
Goods purchased for resale 19%		Goods purchased for resale in transit 19%	<b>10.000 lei</b>

The Goods Receipt and Discrepancy Report (N.R.C.D.) for month N+1 is prepared – after applying a 10% commercial markup to their purchase cost:

<b>371.1</b>	=	<b>%</b>	
Goods purchased for resale 19%			<b>3.090 lei</b>
		<b>378.1</b>	
		Price differences on goods purchased for resale 19%	1.000 lei
		<b>4428.1</b>	
		VAT under settlement 19%	2.090 lei

### Accounting treatments for trade payables

- Algevita Pharmacy pays in cash the invoice amount of 1,190 lei, according to the receipt:

<b>401</b>	=	<b>5311</b>	
Suppliers		Petty cash in lei	<b>1.190 lei</b>

**Note:** Cash payments are limited to a maximum amount of 5,000 lei.

Algevita Pharmacy pays the invoice amount of 11,900 lei by bank transfer, according to the payment order.

<b>401</b>	=	<b>5121</b>	
Suppliers		Cash at bank in lei	<b>11.900 lei</b>

### Particularities regarding price discounts received from medicine suppliers

Legal commercial practices regarding the sale of pharmaceutical products include: (i) receiving goods free of charge (samples), and (ii) price discounts received from medicine

suppliers. According to the Order of the Minister of Public Finance no. 1,802/2014 for the approval of Accounting Regulations regarding individual annual financial statements and consolidated annual financial statements, discounts granted to clients may take the form of trade discounts and financial discounts.

A separate category consists of goods received free of charge for promotional purposes, aimed at stimulating sales of certain product categories.

### Accounting treatments for SAMPLES

Algevita Pharmacy purchases samples of cosmetic products worth 100 lei for sales promotion purposes, according to the delivery note:

<b>3028</b>	=	<b>7588</b>	<b>100 lei</b>
Other consumables		Other operating income	

Note: According to the Accounting Regulations, samples cannot be recorded in account 401 (against 609), but must be recorded in account 7588 at fair value, as they are goods received free of charge.

At the moment of their use (when granted to clients), the samples are removed from inventory:

<b>6588</b>	=	<b>3028</b>	<b>100 lei</b>
Other operating expenses		Other consumable	

### Accounting treatments for trade discounts received on invoicing

Algevita Pharmacy purchases medicines worth 1,000 lei, VAT 9%, with a trade discount received of 150 lei, according to the purchase invoice:

<b>371.2</b>	=	<b>401</b>	<b>926,5 lei</b>
Goods purchased for resale (medicine) 9%		Suppliers	850 lei
<b>4426.2</b>			76,5 lei
Input VAT 9%			

A commercial markup of 10% and non-deductible VAT of 9% for medicines are recorded, based on the goods receipt and discrepancy report.

<b>371.2</b>	=	<b>%</b>	<b>169,15 lei</b>
Goods purchased for resale (medicine) 9%			

	<b>378.2</b>	
Price differences on goods purchased for resale (medicines) 9%		85 lei
	<b>4428.2</b>	
VAT under settlement (medicines) 9%		84,15 lei

### Accounting treatments for trade discounts received after invoicing

- A subsequent trade discount of 200 lei is received for the purchased medicines, according to the discount invoice:

<b>609</b>	=	<b>401</b>	
Trade discounts received		Suppliers	<b>-183,49 lei</b>

<b>4426.2</b>	=	<b>401</b>	
Input VAT – Medicines 9%		Suppliers	<b>-16,51 lei</b>

### Accounting treatments related to sales

Prescriptions for partially or fully subsidized medicines can be obtained for certain medicines and only based on the insured status within the public health system. Currently, the system for reimbursing medicines by the National Health Insurance House includes six special lists, each benefiting from a specific type of reimbursement (full or partial). According to the law, the beneficiaries of these prescriptions are: children up to 18 years old; young people aged 18–26 (students/apprentices without an employment contract); pregnant and postpartum women; persons with oncological or chronic conditions; and individuals included in special legislation (veterans, persons with disabilities).

Compensated or free medical prescriptions are provided for outpatient treatment by doctors who have contracts with the Health Insurance Houses and are dispensed by pharmaceutical units that also have these contracts with the H.I.H.

The procedure for prescribing and dispensing a subsidized prescription is established through a Framework Agreement, which regulates the conditions for providing medical care, medicines, and medical devices within the social health insurance system. Below, we present the main clients of Algevita Pharmacy for whom we will address the specific accounting treatments:

**Approaches to the sale of non-subsidized medicines and parapharmaceuticals Sale of goods and medicines with CASH payment (various clients – patients)**

- Algevita Pharmacy sells parapharmaceutical products worth 100 lei, VAT 19%, according to the fiscal receipt:

<b>5311</b>	=	<b>%</b>	<b>119 lei</b>
Petty cash in lei			
		<b>707.1</b>	100 lei
		Sale of goods purchased for resale 19%	
		<b>4427.1</b>	19 lei
		Output VAT 19%	

- Algevita Pharmacy sells non-subsidized medicines worth 100 lei, VAT 9%, according to the fiscal receipt:

<b>5311</b>	=	<b>%</b>	<b>109 lei</b>
Petty cash in lei			
		<b>707.2</b>	100 lei
		Sale of goods purchased for resale (medicines) 9%	
		<b>4427.2</b>	9 lei
		Output VAT 9%	

***Sale of goods and medicines with CARD payment (various clients – patients)***

- Algevita Pharmacy sells non-subsidized medicines for 100 lei, including 9% VAT, according to the fiscal receipt:

<b>5125</b>	=	<b>%</b>	<b>109 lei</b>
Amounts under settlement			
		<b>707.2</b>	100 lei
		Sale of goods purchased for resale (medicines) 9%	
		<b>4427.2</b>	9 lei
		Output VAT 9%	

-Algevita Pharmacy collects, via bank, the payment for products sold by card, according to the account statement:

<b>5121</b>	=	<b>5125</b>	<b>109 lei</b>
Cash at bank in lei		Amounts under settlement	

Payment of a 2-lei bank fee, according to the account statement:

<b>627</b>	=	<b>5121</b>	
Bank commissions and similar charges		Cash at bank in lei	<b>2 lei</b>

### Approaches to the sale of subsidized and free medicines

In month 01.N, Algevita Pharmacy sells subsidized medicines worth 33 lei, VAT 9% included, according to the fiscal receipt, the centralized report, and the invoice issued to the Health Insurance House (C.A.S.):

<b>411.1</b>	=	<b>%</b>	
Customers- C.A.S.M.B.			<b>33 lei</b>
		<b>707.2</b>	
		Sale of goods purchased for resale (medicines) 9%	30,27 lei
		<b>4427.2</b>	
		Output VAT 9%	2,73 lei

Algevita Pharmacy collects the receivable amount of 33 lei from the Health Insurance House into its Treasury account, according to the account statement:

<b>5121.1</b>	=	<b>411.1</b>	
Cash at bank in lei		Customers – C.A.S.M.B.	<b>33 lei</b>

Note: Algevita Pharmacy must have an account at the State Treasury in order to collect the invoices issued to the Health Insurance House (C.A.S.), as the reimbursement period is variable (60 days – even up to one year).

At the end of each month, the commercial markup allocation coefficient is calculated, used to write off the sold merchandise from inventory:

**Write-off coefficient K = TSC Account 378 / (TSD Account 371 – TSC Account 4428)**

- a) At **Farmacia Algevita S.R.L.**, the commercial markup allocation coefficient calculated at the end of the month is **10%**.
- b) During the month 01.N, the pharmacy generated **revenue from medicine sales** amounting to **1,000 RON**, according to the credit turnover of account 707.2, “*Revenue from sales of medicines 9%*”. Therefore, the commercial markup related to the medicines sold is calculated by applying the average coefficient of 10% to the monthly sales:
- c) **1,000 RON × 10% = 100 RON**

- d) Since these **100 RON** represent the commercial markup for the month's sales, it follows that the **cost of goods sold** for the medicines during the month is **900 RON**, and the **collected VAT at 9%** from the sales of medicines is **90 RON** ( $9\% \times 1,000 \text{ RON}$ ).

<b>607.2</b>	=	<b>371.2</b>	
		Goods purchased for resale (Medicines) 9 %	<b>1.090 lei</b>
Cost of goods for resale (medicines 9%)			900 lei
<b>378.2</b>			
Price differences on goods purchased for resale (medicines) 9%			100 lei
<b>4428.2</b>			
VAT under settlement			90 lei

### Accounting Treatments for Inventory of Stock

The inventory procedure for the stock of a pharmaceutical unit is particularly important because it aims to maintain accurate and precise records, identify discrepancies between book and actual stock, as well as expired, non-compliant, or discrepant products.

Farmacia Algevita uses a perpetual inventory system as the method of accounting for merchandise stock, with records maintained as follows: at the pharmacy branch, stock management is quantitative and value-based, while in the financial accounting, a global-value method is used. The inventory process is briefly described below:

Stock write-offs are carried out using the specific identification method by batch, monitoring the risk of expiration of specific stock and keeping track at all times of the purchase cost of each product sold.

Thus, according to the official report on the inventory results, the following was observed at Farmacia Algevita:

Shortage in the management of 9% VAT medicines – attributable to storekeepers – with a total value of 200.20 RON, corresponding to 10 vials of Algocalmin 500 mg/ml, unit purchase cost 8.5 RON, VAT 9%.

Recording of deficits attributable to storekeepers, according to the official report (P.V.)

<b>607.2</b>	=	<b>371.2</b>	
		Goods purchased for resale (medicines) 9 %	<b>200,20 lei</b>

Cost of goods for resale (medicines 9%) <b>378.2</b>	183,285 lei
Price differences on goods purchased for resale (medicines) 9% <b>4428.2</b>	8,5 lei
VAT under settlement (medicines)	8,415 lei

- **Adjustment of initially deducted 9% VAT** on the total purchase cost (85 RON), even if the shortage from inventory is allocated, since Romanian fiscal legislation considers that allocated amounts are not subject to VAT:

<b>635</b>	=	<b>4426</b>	<b>7,65 lei</b>
Other taxes, duties and similar expenses		Input VAT	

- Recording the allocation of the deficit for a replacement value of 150 RON, according to the official report (P.V.):

<b>4282</b>	=	<b>7581</b>	<b>150 lei</b>
Other employee-related claims		Compensations, fines and penalties	

### Accounting Treatments for Expired Stock

Pharmacies have a particular situation regarding expired medicines, which must be managed correctly both from an accounting perspective and in accordance with health and environmental legislation. From a fiscal standpoint, the expense for removing expired stock is deductible under Art. 25 para. (1) of the Fiscal Code and the methodological norms point 13 para. 1 lit. f, providing a legal basis for removing expired goods from inventory.

Regarding VAT, the situation is clearly regulated under Art. 304 para. (2) lit. a) of the Fiscal Code and point 78 para. (10) lit. d) of the Methodological Norms. Thus, for goods that are qualitatively degraded and can no longer be sold, no adjustments to deductible VAT are made if all of the following conditions are met:

- the qualitative degradation of the goods is due to objective causes documented accordingly, and
- it can be proven that the goods were effectively destroyed, without any possibility of re-entering the economic circuit.

Order 1226/2012 of the Ministry of Health provides specific rules regarding the management of waste generated from medical activities.

The pharmacy must have a contract with an authorized company for the collection, transport, and destruction of expired medicines, along with the following supporting documents:

- Inventory removal report approved by the pharmacy administrators (dated, signed, stamped);
- Official report of removal from inventory signed by the responsible person (dated, stamped);
- Official report of delivery for destruction to the contracted authorized company for hazardous waste collection (dated, signed, stamped by both parties).

#### **Accounting entry for the removal of expired medicines from inventory**

As a result of the monthly inventory, Farmacia Algevita identifies a batch of expired medicines valued at **1,000 RON**, according to the expired products count list and the official report:

<b>371.2</b>	=	<b>1.000 lei</b>
		Goods purchased for resale (medicines) 9%
<b>607.2</b>		810 lei
Cost of goods for resale (medicines 9%)		
<b>378.2</b>		100 lei
Price differences on goods purchased for resale (medicines) 9%		
<b>4428.2</b>		90 lei
VAT under settlement (medicines)		

### **3. Analysis of Annual Financial Statements**

We will present several relevant indicators regarding the structure and evolution of turnover, the share of different types of merchandise in total sales, the commercial margin, net profit, the profitability rate, as well as the Anghel Z-score function, which indicates the risk of bankruptcy.

Below is a table relevant to the composition and evolution of turnover:

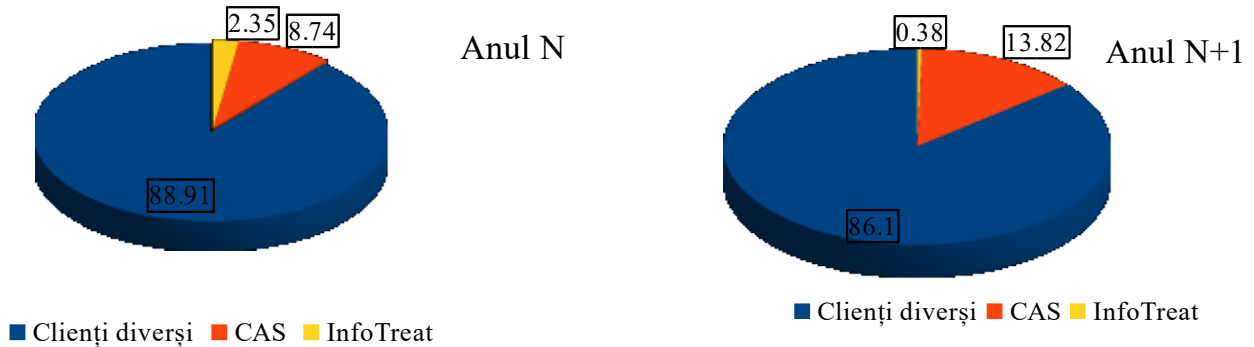
Table no 1 Evolution of turnover

No.	Name	N		N+1		Indicator
		Abs	%	Abs	%	
1.	Revenue from merchandise sales – Social Security (C.A.S.)	366.417	8,74 %	715.421	13,82 %	195,24 %
2.	Revenue from merchandise sales – various customers	3.815.170	88,91 %	4.456.087	86,10%	116,80 %
3.	Other operating income (services provided to Infotreat)	10.009	2,35 %	3.432	0,38%	34,28 %
4.	<b>Revenue (4=1+2+3)</b>	<b>4.191.596</b>	<b>100%</b>	<b>5.174.940</b>	<b>100%</b>	<b>123,46%</b>

Source: Own contribution

It can be observed that turnover increased by **23.64%** in year N+1, driven primarily by the significant **95.24%** growth in sales of reimbursed medicines (C.A.S.) and a less pronounced **16.8%** increase in sales of non-reimbursed medicines, while services provided to InfoTreat decreased sharply by **65%**, as shown in the graphs below:

Figure no.1 Evolutions



Source: Own contribution

We also examine the share of each type of merchandise in the total sales volume:

Table no 1 Evolution of sales

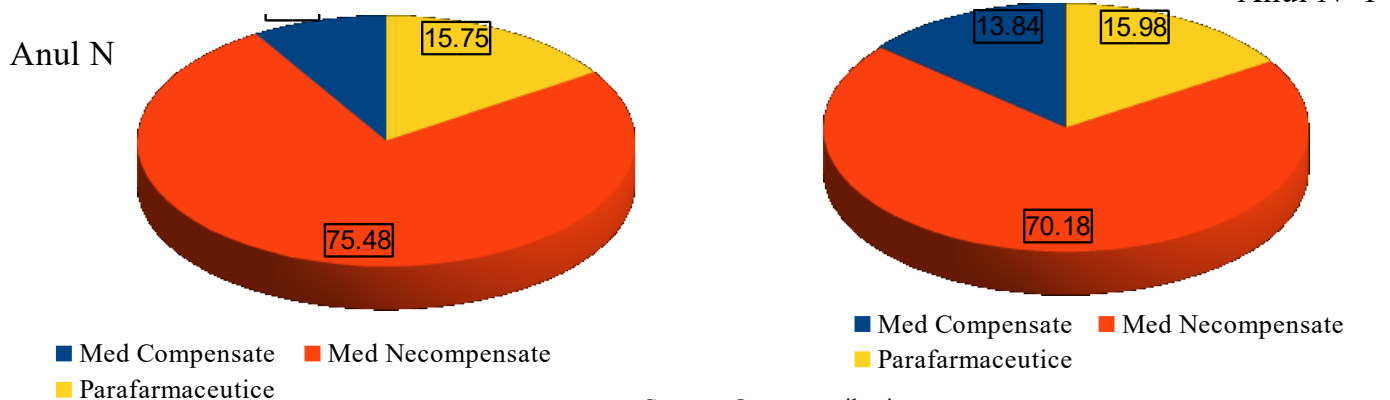
No.	Name	N		N+1		Indicator
		Abs	%	Abs	%	
1.	Reimbursed medicines VAT 9%	366.417	8,77 %	715.421	13,84 %	195,24 %

2.	Unreimbursed medicines VAT 9%	3.156.374	75,48 %	3.629.675	70,18 %	115 %
3.	Parapharmaceutical products VAT 19%	658.796	15,75 %	826.412	15,98 %	125,44 %
4.	<b>TOTAL (3=1+2+3)</b>	<b>4.181.587</b>	<b>100 %</b>	<b>5.171.508</b>	<b>100 %</b>	<b>123,67%</b>

Source: Own contribution

It can be observed that, compared to year N, the volume of merchandise sales increased by **23.67%** in year N+1, driven primarily by the significant **95.24%** increase in sales of reimbursed medicines (C.A.S.). A secondary influence was the **15%** rise in sales of non-reimbursed medicines and the **25.44%** increase in sales of parapharmaceutical products, which led to a change in the distribution of the sales volume by product category.

Figure no.2 Distribution of sales



Source: Own contribution

### Commercial Margin (CM)

Also known as the *trade markup*, it represents a fundamental indicator for assessing the performance of commercial enterprises and the quality of their sales policy, as well as for forecasting studies, although it is insufficient on its own for comprehensive analyses. It is an important indicator for pharmaceutical units that sell specific products at retail prices.

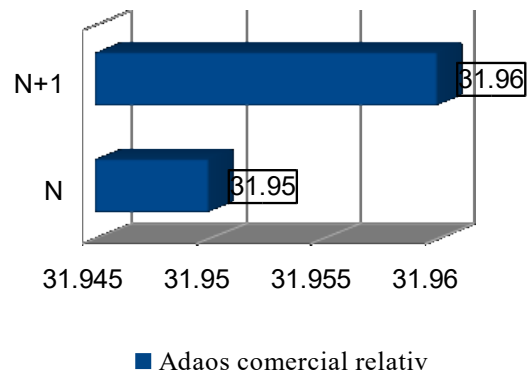
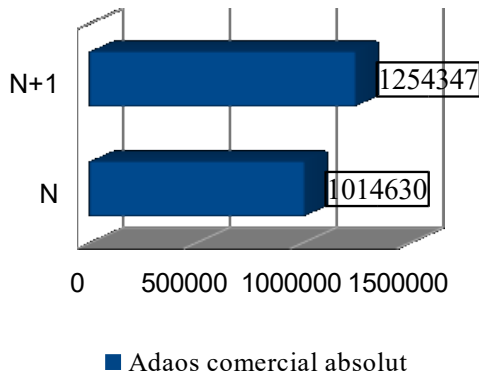
Table no 2 Commercial markup

No.	Name of the indicator	N	N+1	Indicator
1.	Incomes from goods sold	4.189.088	5.179.912	123,65 %
2.	Cost of goods sold	3.174.458	3.925.565	123,66 %
3.	Commercial margin (absolute) (3 = 1 – 2)	<b>1.014.630</b>	<b>1.254.347</b>	<b>123,62 %</b>
4.	Relative commercial margin (4 = 3 / 2)	<b>31,95 %</b>	<b>31,96 %</b>	<b>100,03 %</b>

Source: Own contribution

From the data above, it can be observed that the absolute commercial markup increased by 23.62% in year N+1 due to a 23.65% increase in revenue from goods sales, as well as a roughly equivalent increase in expenses of 23.66%.

Figure no.3 Commercial addition



Source: Own contribution

Next, we will analyze the evolution of net profit:

Table no 3 Evolution of net profit

No.	Name of the indicators	N	N+1	Indicator
1.	Total incomes	4.200.478	5.185.019	123,44 %
2.	Total Expenses	4.180.541	5.174.139	123,76 %
3.	<b>NET PROFIT (3=1-2)</b>	<b>19.937</b>	<b>10.880</b>	<b>54,57 %</b>

Source: Own contribution

A decrease in net profit of 45.43% is observed in year N+1, which is due to the faster increase in total expenses – including operating costs, personnel salaries, and goods – compared to revenue growth, as illustrated in the graph below. One of the most relevant indicators in any business is the economic break-even point:

Table no 4 Evolution of economic profitability

No.	Name of the indicators	N	N+1	Absolute change	Indicator
1.	Net Profit	19.937	10.880	-9.100	54,45 %
2.	Total assets	754.088	936.061	181.973	124,13 %
3.	<b>ECONOMIC PROFITABILITY ROA (3 = 1 / 2)</b>	<b>0,026</b>	<b>0,012</b>	<b>-0,014</b>	<b>46,15 %</b>

Source: Own contribution

The economic profitability rate experienced a sharp decline of approximately 54% due to a significant decrease in net profit of 45%, while total assets increased by 24%.

### Analysis of Bankruptcy Risk Using the Anghel Method

The Anghel score function is one of the main discriminant analysis methods used for predicting bankruptcy in economic activity in Romania. The calculation of this score is as follows:

$$Z=5.676+6.3718X_1+5.3932X_2-5.1427X_3-0.0105X_4Z = 5.676 + 6.3718X_1 + 5.3932X_2 - 5.1427X_3 - 0.0105X_4$$

Where:

- $X_1$  – ratio of Net Profit to Total Revenue
- $X_2$  – ratio of Cash Flows to Total Assets
- $X_3$  – ratio of Total Liabilities to Total Assets
- $X_4$  – ratio of (Total Liabilities × 360) to Turnover
- Constant  $C=5.676$

**Interpretation:** Correspondence between the Z-score value and bankruptcy probability:

- $Z < 0$  – bankruptcy/failure

- $0 < Z < 2.050 < Z < 2.050 < Z < 2.05$  – uncertainty zone / financial difficulties
- $Z > 2.05 Z > 2.05 Z > 2.05$  – non-bankruptcy

In the case of Farmacia Algevita, the Z-score function has a negative value in both reporting periods analyzed: -3.388 in year N and -8.108 in year N+1, indicating a worsening financial situation and an imminent risk of bankruptcy if the company does not take radical measures to restructure its economic activity.

The methodology for calculating the Z-score is presented in the table below:

Table no 5 Z-score

No.	Name of the indicator	N	N+1
1.	Net Profit	19.937	10.880
2.	Total income	4.200.478	5.185.019
3.	$X_1 (3=1/2)$	<b>0,0047</b>	<b>0,0021</b>
4.	Variable	6,3718	6,3718
5.	<b>Edited score (5=3*4)</b>	<b>0,0300</b>	<b>0,0133</b>
6.	Cash flows	233.658	252.770
7.	Total assets	754.088	936.061
8.	$X_2 (8=6/7)$	<b>0,3099</b>	<b>0,2701</b>
9.	Variable	5,3932	5,3932
10.	<b>Edited Score (10=8*9)</b>	<b>1,6713</b>	<b>1,4567</b>
11.	Total liabilities	659.191	1.538.755
12.	Total assets	754.088	936.061
13.	$X_3 (13=11/12)$	<b>0,8742</b>	<b>1,6439</b>
14.	Variable	5,1427	5,1427
15.	<b>Edited Score (15=13*14)</b>	<b>4,4957</b>	<b>8,4540</b>
16.	Total liabilities *360	237.308.760	553.951.800
17.	Revenue	4.191.596	5.174.940
18.	$X_4 (18=16/17)$	<b>56,6153</b>	<b>107,04506</b>

19.	Variable	0,0105	0,0105
20.	Edited Score (20=18*19)	0,5944	1,1240
21.	TOTAL Z SCORE (21=5+10-15-20)	-3,388	-8,108

Source: Own contribution

#### 4. Conclusions

The accounting policies of pharmaceutical units stem from the specific characteristics of their establishment, organization, and operation.

The accounting record regarding inflows at the pharmacy level has the following distinctive features:

- a) The special legislative framework requires specific purchases mandated by law, which condition the operation of the pharmacy;
- b) Purchases of medicines and parapharmaceutical products are made from authorized manufacturers and distributors, requiring separate recording for reduced VAT at 9% for medicines and standard VAT at 19% for parapharmaceuticals;
- c) A goods receipt and discrepancy report is prepared based on the invoice and for the purpose of determining the retail price, which consists of non-recoverable VAT and the commercial markup;
- d) The commercial markup is regulated, and the sale price of certain medicines is legally capped (maximum price);
- e) Medicine suppliers may grant pharmacies commercial and financial discounts, as well as free goods to stimulate sales;
- f) Payment of trade liabilities to medicine suppliers can be made on the spot in cash for purchases up to 5,000 RON, or via bank transfer according to the terms established in the respective contracts.

The specific accounting treatments for outflows in pharmaceutical activity have the following characteristics:

- a) Pharmacy clients include individuals/patients – for non-reimbursed medicines and parapharmaceutical products – and the Health Insurance Houses – for free or reimbursed medicines, based on contracts renewed annually;

- b) Collections from sales of goods and medicines are made in cash or by card for revenues from various clients, or through the Treasury account for revenues from the Health Insurance Houses.
- c) Pharmaceutical units must submit daily online reports to the Health Insurance Houses and issue monthly invoices to them based on the consolidated statements from the pharmacy software connected to the National Health Insurance House (C.N.A.S.);

These amounts will subsequently be recovered by the pharmacies upon collection in the Treasury account of the issued invoices, with the settlement period of the invoices issued to the Health Insurance Houses being variable (a few months – 1 year).

An especially important aspect of pharmacy activity concerns the accounting treatments related to inventories:

- a) The pharmacy uses perpetual inventory as the method for accounting inventories;
- b) Inventory records are kept quantitatively and in value at the point of sale, and in total value in financial accounting;
- c) Monthly inventory write-offs are carried out based on the K coefficient for the allocation of commercial markup;
- d) Inventorying takes place monthly for strict tracking of expired stock, which is to be handed over to specialized companies based on a report or goods accompanying note, with the write-off from inventory carried out according to supporting documents.

The stages undertaken, the elements involved within them, and the references to normative bases serve as a benchmark for financial-accounting practitioners in the pharmaceutical retail sector, as well as for specialized education.

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