

## Lesson 8

### Analysis and planning of the volume of sales of pharmacy products

#### Questions for discussion in the classroom

1. Trade turnover. Definition.
2. Qualitative and quantitative characteristics of the sale of goods
3. Structure of the volume of sales of medicines
4. Factors affecting the value of turnover
5. Analysis of the volume of sales of pharmacy products.
6. Planning the volume of sales of pharmacy products

#### 1. Trade turnover. Definition.

The sale of goods is the basis of the financial efficiency of the trading organization. This concept includes the purchase, transportation, warehousing, and sale of goods. Sales can be represented as the process of turnover of goods or commodity turnover, which consists of three elements: consumption (sales - P), receipt of goods (arrival - R), commodity balances at the beginning and end of the reporting period (stocks – About the beginning, About the end). These elements are interconnected and can be represented by the commodity balance formula:

About the beginning + P = R + About the end

<i>the amount of the remaining goods on the starting date</i>	+	<i>receipt of goods (purchase)</i>	=	<i>Amount of goods sold</i>	+	<i>the amount of the remaining goods at the end date</i>
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*For example.*

*For the month of September, the pharmacy had a movement of goods:*

1. *the amount of the remaining goods*

*on the starting date (as of 01.09.) 135 thousand rubles.*

2. *for this month, goods were purchased for 280 thousand rubles.*

3. *Goods sold in September in the amount of 290 thousand rubles.*

*You can calculate the amount of the remaining goods on the last date (September 30). For this calculation, we will substitute our data into the commodity balance formula:*

$$135 + 280 = 290 + X,$$

*where X is the balance of goods on the last date (September 30)*

*$X=135+280-290=125$  the balance on September 30 is 125 thousand rubles*

The main characteristic of sales is the sale of goods. In addition, sales indicators are a characteristic of meeting demand in the pharmacy range of products. The volume of sales can also be called sales volume, sales revenue, turnover. Sales (turnover) is the main economic indicator of the pharmacy and is closely related to other indicators: income, circulation costs, profit, profitability.

**Turnover** is the volume of sales of goods and services in monetary terms for a certain period of time (day, month, quarter, year).

## **2. Qualitative and quantitative characteristics of the sale of goods**

Sales (turnover) it can be characterized qualitatively or quantitatively

***The qualitative characteristics include:***

- Average per capita consumption of pharmacy products (calculated per 1 consumer on average, characterizes the level of drug care, awareness, purchasing power, standard of living in the region)
- Average sales volumes per 1 employee in a pharmacy (characterizes the productivity of pharmacy workers)
- The structural composition of the goods sold by groups of goods or pharmacological groups of medicines (characterizes the structure of consumption)

### ***Quantitative characteristics are***

- sales volumes in monetary terms in retail or wholesale prices for a certain period of time
- sales volumes in physical terms for a certain period of time

### **3. Structure of the volume of sales of medicines**

1. The structure of the turnover can be represented

**by the constituent elements:**

For example:

by the nature of consumers

Sales to medical organizations

Sell to other organizations

Sales to the public

This structuring is important in approaches to trade planning. When planning sales to organizations, the amount of sales will be determined by the allocations allocated to them for the purchase of medicines. The planning of sales to the population will be carried out according to the methods of retail sales planning.

**2. By nomenclature (by product groups)**

medicines and chemical

products dressings and patient care items

perfumes and cosmetics

medical equipment and eyeglass optics

The **medicines group**, in turn, can be structured according to **pharmacotherapeutic groups of products:**

antimicrobial

analgesic, antipyretic, anti-inflammatory drugs

affecting the cardiovascular system

### **3. By the method of sale to the public**

Sales to the public (by prescription and without prescription)

Vacation to the public by free and preferential prescriptions.

### **4. The range of pharmacy products can be structured **according to the amount of demand:****

Products with growing demand

Goods with neutral demand

Goods with falling demand

Products with constant demand

Products with pulsating (seasonal) demand

Products with unpredictable (highly variable) demand

## **4. Factors affecting the amount of turnover**

**Quantitative factors:** their analysis makes it possible to determine the degree of influence

- Morbidity rate
- Size and structure of inventories
- Prices for pharmacy products
- Number of visitors
- Number of pharmacies and medical organizations
- Number of doctors and pharmacists
- Solvency of visitors

**Qualitative:** the analysis allows you to identify the likelihood of an impact on the implementation

**Nature of consumers:** population, organizations, children, elderly, privileged categories

**Method of sale:** by prescription, without prescription, open layout, closed layout

Intensity of demand, dependence on the season

The level of awareness of visitors

The level of advertising activity

***The growth of trade turnover is promoted by***

- ❖ Growth in the number of doctors and pharmacists
- ❖ Aging of the population
- ❖ Price increase
- ❖ New highly effective and expensive medicines
- ❖ Advertisement

**The containment of trade is facilitated by:**

- Prescription of medicines
- Restriction of advertising
- Low solvency of the population
- Lack of awareness
- Low level of consumption culture
- Insufficient assortment of goods

## **5. Analysis of the volume of sales of pharmacy products**

Analysis tasks:

1. Analysis of the implementation of the plan for the sale of goods by structure and volume
2. Study of the dynamics and structure of the sales volume
3. Determination of the reserve for increasing the volume of sales

The source of information is accounting and statistical reports for previous years

That is, intra-production data and data on the state of the market (external data).

Data from the commodity report, cash register, recipe accounting logs, average daily turnover, product balances, receipt of goods in aggregate terms, etc. are used.

External data can be represented by data on population dynamics, employment dynamics, price index dynamics, inflation rates, demand dynamics, supply dynamics. These data can be obtained from statistical reference books, yearbooks Rosstat , Goskomstat, overview data from periodicals.

The main stages of the analysis:

- 1) Study of the dynamics of the performance of indicators of turnover, assessment of the degree of performance in comparison with the planned indicators;
- 2) Analysis of the influence of factors on the performance of turnover;
- 3) Identification of a reserve for increasing turnover.

To perform the analysis , the compliance of the indicators is checked for three parameters:

- A) by prices – through the price index;
- B) by time – for the same time intervals (average daily turnover)
- C) comparability in space: for the same one and the same retail space, organization, division.

**Stage 1.** The study of the dynamics of trade turnover indicators is carried out by calculating the chain and basic indicators of growth rates. To do this, compare the actual data for a number of years. Absolute, relative and average values are calculated. The indicators of turnover fulfillment for a number of years constitute a dynamic series.

Dynamic series can consist of both absolute and their relative and average values

Example: data on the sale of goods for a number of years:

*2023 – 23.5 million rubles.*

*2022 – 22.5 million rubles*

*2021 – 21.0 million rubles .*

In the process of analysis , growth rates are calculated . To do this, you need to correlate the data of the next year to the data of the previous year.

$$\text{Growth rate } 2023/2022 = 23.5 : 22.5 = 1,044$$

$$\text{Growth rate } 2022/2021 = 22.5 : 21.0 = 1,071$$

$$\text{Average growth rate} = (1,044 + 1,071) : 2 = \mathbf{1,057}$$

**Stage 2.** Analyze the influence of factors on the turnover.

Price impact.

When predicting possible changes in sales volumes, the price elasticity of demand for a specific drug or a group of drugs can serve as a guideline.

If the demand is elastic, the coefficient is greater than one  $|E| > 1$ , the sales volume decreases with the price increase;

If the coefficient of elasticity  $|E| = 1$ , the change in price and sales are inversely proportional

If the demand is inelastic, the coefficient is less than one  $|E| < 1$ , with a change in price, the volume of sales changes slightly, other factors may influence here;

The growth of household incomes leads to an increase in sales volumes. But since not only incomes are growing, but also prices, real incomes are declining.

When forecasting the volume of sales, it is necessary to take into account inflation. This can be done using the **Consumer Price Index** (CPI).

$$\text{CPI} = \frac{\text{Price per month consumer basket present. period}}{\text{The price of the consumer basket past ground period}}$$

The price of the consumer basket past ground period

$$\text{Example: } 2400 \text{ rubles.} : 2280 \text{ rubles.} = \mathbf{1,053}$$

The rate of inflation =  $(\text{CPI of the present century} - \text{CPI of the past.year}) : \text{CPI past.year} \times 100\%$

$$\text{Example: } (1,125 - 1,053) : 1,053 \times 100\% = 6.84\%$$

**Stage 3.** Analyze the projected changes in external and internal factors that may affect the turnover in the coming period.

*For example:* the opening of a shopping center nearby, the commissioning of a new enterprise, the opening of a polyclinic in the immediate vicinity of a pharmacy can contribute to an increase in turnover.

a reduction in the population, an increase in the unemployment rate, an increase in energy prices, a crisis situation in the economy can lead to a decrease in trade turnover.

The data obtained as a result of the analysis are used to plan the turnover for the upcoming period.

## **6.Planning the volume of sales of pharmacy products**

If no significant changes are expected in the upcoming period, the turnover plan is calculated according to the standard methodology.

A turnover plan is an estimate of future sales in monetary terms for a certain period of time.

From the data obtained as a result of the analysis, we use :

Trade turnover for the reporting year (2023) – **23.5** million rubles.

The **average growth rate** of trade turnover is **1,057**

According to official statistics, the expected price increase will be **3.5%** (**1.035**)

The T plan for 2024 will be :

**T 2023 x Growth rate x price growth index.**

Calculation:

**23.5 million.rub x 1,057 x 1 .035 = 25.7 million rubles.**

Thus, under the unchanged working conditions of the organization, a reasonable

turnover plan for 2024 will amount to **25.7** million rubles.

The calculated turnover plan for the year is distributed quarterly.

To do this, a preliminary analysis is carried out for previous years and the share of implementation in each quarter of the year is determined.

Example: in 2023, retail turnover for the year amounted to 23.5 million rubles.



Quarterly:

1 q. – 6.2 million rubles;

2 q. -5.8 million rubles;

3 q. – 5.2 million rubles

4 q.- 6.3 million rubles.

In % quarterly turnover was completed:

**1 q. - 26.4%; 2q. - 24.7%; 3q. - 22.1%; 4Q. - 26.8%**

In accordance with the revealed ratios, the plan for 2024 will be distributed quarterly as follows:

1 q. – 25.7 million rubles x 26.4% : 100% = 6.8 million rubles.

2 q. - 25.7 million rubles. x 24.7% : 100% = 6.3 million rubles

3 q. – 25.7 million rubles. x 22.1% : 100% = 5.7 million rubles.

4 q. – 25.7 million rubles x 26.8% : 100% = 6.9 million rubles.

Thus, the turnover is planned to be carried out during the year unevenly by quarters, since the consumption of pharmacy products during the year significantly depends on a number of factors and is uneven.

Similarly, the distribution of the turnover plan for each month of the quarter is carried out (in accordance with the current share of each month in the quarter).

In addition to selling to the public at full cost, pharmacy organizations sell pharmacy products to medical and other organizations. Planning of this part of the turnover is carried out in accordance with the data of contracts for the supply of medicines concluded between the pharmacy and medical organizations. It is also determined by the allocated allocations for the medical organization, the needs of the medical organization, its specialization, the number of beds, the profile of the institution, and other factors.

The turnover plan for organizations is equal to the allocations allocated to these organizations for the purchase of medicines and other pharmacy products

In this case, the total turnover is planned as the sum of the sales sections: to the population and medical organizations.

### **The value of turnover for the organization**

- Retail turnover refers to the sale of goods to the population to meet personal needs in exchange for their monetary income.
- Retail turnover is the most important indicator of a trading company. It characterizes the volume of activity of the enterprise, the volume of gross income and profit depends on it.
- The main goal of trading enterprises at present is to maximize profits,
  - Trade turnover acts as the most important and necessary condition, without which this goal cannot be achieved.
  - Since a trading company receives a certain amount of income from each ruble of goods sold, then the task of maximizing profits necessitates a constant increase in the volume of turnover as the main factor of income and profit growth.

#### **Task #1**

Calculate the forecast of the pharmacy's turnover for the next year, taking into account that:

- in the current year, the fulfillment amounted to 7865.2 thousand rubles.
- the growth rate compared to last year is 2.7%
- prices are expected to increase by 5% (price index 1.05)

#### **Task #2**

The turnover plan for the next year is 8,500 thousand rubles.

Last year, the turnover amounted to 7865.2 thousand rubles.

In each quarter of last year, the following part of the annual turnover was carried out

1st quarter 2130.1 t.p. (27.1%)

2nd quarter 1850.3 t.p. (23.5%)

3rd quarter 1588.5 t.p. (20.2%)

4th quarter 2296.3 t.p. (29.2%)

Plan the pharmacy's retail turnover for each quarter of next year.

Decision.

Task 1

THAT'S the plan. = ( 7865, 2 thousand rubles. \* 102,7 % \* 1.05 ) : 100% = 8481.4 thousand rubles.

Conclusion. Next year, with the indicated price increase and the dynamics of trade turnover for the previous year, it is possible to plan a T/O in the amount of 8481.4 thousand rubles . (8500)

Task 2

The next year's plan for each quarter is distributed taking into account the prevailing ratio in % in the past year. To calculate from the turnover plan for the year, we calculate a part of the turnover by quarters:

1q. 8 481.4 thousand rubles. \* 27.1 : 100 = 2298.5

2q. 8 481.4 thousand rubles. \* 23.5 : 100 = 1993.1

3q. 8 481.4 thousand rubles. \* 20.2 : 100 = 1713.2 4q. 8 481.

4 thousand rubles. \* 29.2 : 100 = 2476.6