

STATE COMMITTEE OF COMMUNICATIONS, INFORMATIZATION AND
TELECOMMUNICATION TECHNOLOGIES OF THE REPUBLIC OF
UZBEKISTAN
TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES

To admit to protection
The head of the Department

« ____ » _____ 2014 y

Final Qualifying work

on the theme:

**“DIRECT-COSTING ANALYSES IN THE EVALUATION OF
FINANCIAL CONDITION OF THE ENTERPRISE OF
COMMUNICATION AND INFORMATION”**

Graduate _____ Bichkova A.I.
signature

Supervisor _____ Ivanova I.S.
signature

Reviewer _____ Yuldasheva S.A.
signature

The adviser
of S.V.A _____ Borisova E.A.
signature

TASHKENT-2014

**STATE COMMITTEE OF COMMUNICATIONS, INFORMATIZATION
AND TELECOMMUNICATION TECHNOLOGIES OF THE REPUBLIC
OF UZBEKISTAN**

TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES

Faculty of "Economics and Management in the sphere of ICT "

, "Economics in the sphere of ICT " department

Direction: 5340100 – "Economics in the sphere of ICT"

I CONFIRM

The head of the Department _____

« ____ » _____ 2014 year

TASK

**for final qualifying work of student: Bichkona Anna Igorevna
on the theme : "Direct-costing analyses in the evaluation of financial
condition of the enterprise of communication and information"**

**The theme is confirmed by order on university from December 30th, 2013
№1323**

2. Term of delivery of finished work: 27.05.2014.

3. The initial data to work: President's books, economics text-books, law and orders, other necessary documents.

4. Accountant is a content of written explanation: 1. Theoretical aspects determining the financial condition of the company in the "direct costing" system. 2. Analysis of breakeven activity of Andizhan branch of "Uzbektelecom"; 3. Suggestions and recommendations for improving the activity of the Andizhan branch of "Uzbektelecom". 4. Safety of vital activity.

5. The table of graph materials: Figure: 1. The expenses of the organization to cost components. 2. Total cost functions based on constant productivity. 3. The determination of break-even point (break). Tables: 1. Classification of costs on output of products. 2. Income statement on the "Direct-costing" system. 3. Variable and fixed production costs of the services of the Andizhan branch of "Uzbektelecom". 4. Dynamics of basic indicators of activity of the Andizhan branch of "Uzbektelecom".

6. The date of delivery of the task on 14 of January 2014y.

Supervisor: _____
signature

Task was accepted: _____
signature

7. The advisers of some parts of final work

The name of the sections	Consultant	Signature, data	
		The task was given	The task was received
1. Theoretical aspects determining the financial condition of the company in the "direct costing" system	Supervisor Ivanova I.S.	14.01.2014	14.01.2014
2. Analysis of breakeven activity of Andizhan branch of "Uzbektelecom"	Supervisor Ivanova I.S.	05.02.2014	05.02.2014

3. Suggestions and recommendations for improving the activity of the Andizhan branch of "Uzbektelecom"	Supervisor Ivanova I.S.	19.03.2014	19.03.2014
4.Safetyofvitalactivity	Supervisor Borisova E.A.	3.05.2014	3.05.2014

8.The schedule of performance of work

№	The names of diploma work's parts	Periodoffinishing	Supervisor (sign)
1.	Theoretical aspects determining the financial condition of the company in the " direct costing " system	5.02.2014	
2.	Analisis of breakeven activity of Andizhan branch of "Uzbektelecom"	19.03.2014	
3.	Suggestions and recommendations for improving the activity of the Andizhan branch of "Uzbektelecom"	12.04.2014	
4.	Safetyofvitalactivity	20.05.2014	

Graduate: _____

2014year ____ June

signature

Supervisor: _____

2014year ____ June

Signature

Final qualifying work is devoted to an actual problem of using “Direct-costing” analysis for assessment of financial and economic activity of the Andizhan branch of “Uzbektelecom”. In the work was the analysis of break-even activity, which allows us to estimate the stock of financial strength and effect of the operational arm of the main types of services of the branch. Also, special attention was paid to the consideration of ways to improve the financial state of the studied branch.

Выпускная квалификационная работа посвящена актуальной проблеме использования “Директ-костинг” анализа для оценки финансово-хозяйственной деятельности Андижанского филиала АК “Узбектелеком”. В работе был проведен анализ безубыточности деятельности, который позволяет оценить запас финансовой прочности и силу действия операционного рычага основных видов оказываемых услуг филиала. Также особое внимание уделялось рассмотрению путей улучшения финансового состояния и резервов увеличения запаса финансовой прочности исследуемого филиала.

Mazkur malakaviy bitiruvishi “Uzbektelekom” Aksiyadorlik Kompaniyas i Andijon filialining moliyaviy – xo’jalik faoliyatini baholash uchun ishlatishda dolzarb masala bo’lgan “Direkt-kosting” tahliliga bag’ishlangan. Ushbu filial tomonidan ko’rsatiladigan hizmatlarning operativ tayanch ta’siriva moliyaviy mustahkamlik zahirasi ni baholayoladigan zararsizlik tahlili o’tkazilgan. Hamda moliyaviy holatni yaxshilash yo’llarini ko’rip chiqishga alohida e’tibor qaratilgan.

CONTENT

INTRODUCTION.....	5
1. THEORETICAL ASPECTS OF THE FINANCIAL CONDITION OF THE ENTERPRISE IN THE "DIRECT -COSTING" SYSTEM	
1.1. General characteristics of the accounting "Direct-Costing" system.....	8
1.2. The role, significance and classification of costs in the "Direct-costing" system.....	13
1.3. The concept and objectives of break-even analysis of activity of the enterprise in the "Direct-costing" system	17
2. THE ANALYSIS OF BREAK-EVEN ACTIVITY OF THE ANDIZHAN BRANCH OF "UZBEKTELECOM"	
2.1 Organizational - economic characteristics of the Andizhan branch of "Uzbektelecom"	29
2.2. Assessment break-even activity of the Andizhan branch of "Uzbektelecom"	31
3. PROPOSALS AND RECOMMENDATIONS ON IMPROVEMENT OF THE ACTIVITY OF THE ANDIZHAN BRANCH OF "UZBEKTELECOM"	
3.1. Calculation of the critical level of prices, the critical variable and fixed costs.....	43
3.2. The ways of improvement of a financial condition of the Andizhan branch of "Uzbektelecom"	52
4. SAFETY OF VITAL ACTIVITY	
4.1. Rational organization of the workplace.....	57
4.2. Optimal parameters of the microclimate.....	62
CONCLUSION.....	67
BIBLIOGRAPHY.....	70

INTRODUCTION

In conditions of developing market relations, increasing the independence of enterprises that want to minimize their costs, to increase their competitiveness and strengthen the position of their companies on the market. The transition to market relations is strongly dictated by the necessity of studying of the enterprise's activity. The economy of the state, the level of welfare of the population depend on the efficient activities of the company. Studying the financial results of the company's activity in order to identify the ways and reserves for increasing efficient work is necessary to determine the status of the company. Optimization of profit of the enterprise in the conditions of market relations requires a continuous flow of operational information not only external (about the state of the market, demand for products, prices and so on), but also internal - on formation of production costs. This information is based on the system of production cost accounting on places of their occurrence and types of products, on the revealed deviations flow of resources from the standard norms and estimates on costing data of certain products, taking into account the results of the implementation by types of products. It is important to note that depending on the accounting policy made by the enterprise in the field of production account, the degree of detail cost accounting, and therefore the analysis are different for different companies. The technique of the profit and cost analysis also depends on the completeness of the expenses included in the cost, the availability of separate accounting of variable and fixed costs.

The "direct-costing" system, which is also called the "management costs" or "enterprise management" is the theoretical basis of profit optimization and cost analysis

The "direct-costing" system is an attribute of a market economy. It has achieved a high degree of integration of accounting, analysis and management decision making. One of the important benefits of using this system is the study of the linkages and interdependencies among the volume of production, costs and

profit. Its application allows managerial staff to focus on the change in the marginal income of the company as a whole and by separate types of products, thus making possible the assessment of profitability of production and sales of various products, regardless of the overall decline or rise of sales related to the seasonality of sales or other factors. On the other hand, identifying products with higher profitability, the company optimizes its range.

The head of any enterprise, in practice, has to take a variety of managing decisions. Every decision relating to prices, costs of the enterprise, the volume and structure of sales, ultimately affects the financial results of the enterprise. Simple and very accurate way of determining the relationship and interaction among these categories is the establishment of a break-even point, or defining the point at which the company's revenues fully cover its costs.

Thus, theoretical and practical significance of break-even analysis to assess the current state and perspectives of functioning of the company has determined the relevance of the chosen theme.

The purpose of this final qualification paper is based on the "direct-costing" system to carry out the analysis of break-even activity of the enterprises of the branch of communication and information, and to determine ways of improving their financial stability.

The following main tasks were formulated to achieve the goal:

- to substantiate advantages and disadvantages of the "direct-costing" system.
- to reveal the role and importance of costs in the "direct-costing" system .
- to consider the concept and objectives of break-even analysis of the enterprise activity;
- to present the classification of costs in the conditions of a particular company, to highlight their variable and fixed components;
- to determine the break-even point for each type of services in natural and monetary terms;
- to define the indicators of the stock of financial strength, the strength of operational facilities;

-to justify the measures for lowering the breakeven point of the company.

The object studied in this paper is industrial -economic activities of the Andizhan branch of "Uzbektelecom" for 2012- 2013.

The subject of research is the analysis of break-even production of the enterprise.

The theoretical basis of this work is the work of native and foreign economists in the field of financial analysis and management accounting

1. THEORETICAL ASPECTS OF THE FINANCIAL CONDITION OF THE ENTERPRISE IN THE "DIRECT -COSTING" SYSTEM

1.1. General characteristics of the accounting system "Direct-Costing"

The "Direct-costing" system originated in the U.S. in the 30s of the XX century and got its development in the second half of the XX century. Until 1928 full accounting system cost was used, that, in opinion of analysts of that time, led to artificial distortion of income. To solve this problem, a new system called "direct-costing" was developed. It was introduced in 1936 by an American D. Harris.

The actual implementation of the "Direct-costing" system in the USA refers to 1953, when the national Association of accountants-calculators in their report published the description of this system. In 1961 another report was published. Fifty large companies which used this system were studied in it.

In different countries this system is called differently. In Germany and Austria to indicate the "direct -costing" method such terms as "Teilkostenrechnung" or "Grenzkostenrechnung" (the partial or marginal cost), or "Deckungsbeitragsrechnung" (accounting for the amount of coverage) are used. In the UK "direct-costing" is also called "marginal- costing" which means accounting marginal costs. And in France "LaComptabilite" is used for the margin account. However, despite all this diversity of terms governing the accounting system of variable costs, "direct-costing" is the most common and popular, perhaps because it was the first name given to this method of accounting of the cost price.

The name "Direct-costing" means "the direct cost accounting". But it does not fully reflect the essence of the system, because the main thing in it is organization of separate accounting of variable and fixed costs and the use of its advantages in order to improve management efficiency. That's why the accounting system of variable costs is often called Variable Costing which means "accounting for variable costs".

The name of the system is not accidental. At the first stages of its practical

application in the cost, estimated variable costs include only direct costs, and all kinds of indirect costs were written off directly on the financial results. As a result the total sum of the variable costs coincided with the sum of direct costs, as reflected in the title.

Nowadays "Direct-costing" is widely distributed in all economically developed countries.

The main characteristic of the "Direct-costing" is the unit cost of fixed and variable depending on changes in the volume of production. The production cost includes only the variable costs and fixed costs are immediately referred to the financial result.

An important feature of the "Direct-costing" is the fact that it is possible to study the interrelation and interdependence between production, costs and profit.

Great value in the "Direct-costing" is the establishment of relations and proportions between costs and production volumes. Using the methods of correlation and regression analysis, mathematical statistics, graphical methods, you can solve strategic tasks of the enterprise management. For example, to determine the form of the dependence of expenditures on production or production capacity, to build the estimated equation, to obtain information on the profit or loss of production, depending on its size, to calculate the critical point of production.

The "Direct-costing" allows management to focus on the change in the marginal income as the company in general and on various products. For example, you can identify products with higher rates to go basically on their release, because the difference between the sales price and the sum of the variable costs is not blurred due to retirement of fixed costs on the cost of particular products.

The system provides the ability to quickly reorient quickly the production in response to changing market conditions.

In the report on financial results produced by the "Direct-costing" system, you can see the change in revenue due to changes of variable costs, sales prices and structure of manufactured products.

However, organization of management, production account on the "Direct-

costing" system is connected with a number of problems that arise from its features.

First of all, difficulties arise when the expenses are split on fixed and variable, because there are not many purely fixed or purely variable costs. Mainly expenses are half changable, and in different conditions the same costs can behave differently.

The most common case is labor cost. Today the employee's salary is used, time -based payment scheme work. Accordingly, the costs of labor can be considered as constant. Next month the motivation system is changing - remuneration is linked, for example, with the quantity of services provided. The constant cost turns into variable.

Opponents of the "Direct-costing" believe that fixed costs are also involved in the production of this product and therefore should be included in its cost. The "Direct-costing" does not give answers to the questions: how much product is produced, what its total cost is. Therefore the additional allocation of fixed costs, when it is necessary to know the full cost of finished goods or work in process is needed.

Thus, the advantages of the "direct-costing" system include:

1. The Direct-costing allows you to focus both on the change in the amount of coverage of the company as a whole and the different departments or products; to identify products with higher rates to go basically on their release. The system provides the ability to quickly reorient production in response to changing market conditions.

2. In the income statement shows the change in revenue due to changes in variable costs, sales prices and structure of manufactured products.

3. Limitation of production costs only with the help of variable costs can simplify the regulation, planning, accounting and control of the decreased number of expenses.

4. In connection with the fact that recently there has been a trend of increasing share of permanent (overhead) costs, the requirements for the validity of planning

and regulation of the amounts of such expenses has also increased.

The Direct –costing allows you to focus on these issues, as the amount of fixed costs for a specific period is shown in the statement of income as a separate line and, therefore, their impact on the profit of the enterprise is well visible.

But keep in mind that this system has a number of assumptions:

- all variables, except the production, remain constant (i.e. income is described as a function of the production volume);

- considers only a single product or a permanent list of sold products;

- analysis is conducted only within the specified range of changes in the volume of production;

- costs can strictly be divided into fixed and variable;

- profit is calculated on variable costs (if the profit calculation is based on full distribution costs, it's necessary to enter another assumption: the volume of production is equal to the sales volume, otherwise difficult problems with account for changes in the level of reserves occur);

- total costs and gross income are linear functions of production volume.

In case of violation of these key assumptions the obtained results either do not make sense, or special attention should be given to their interpretation.

The disadvantages of the "direct-costing" system include:

- difficulties in dividing the costs on fixed and variable. A significant part of mixed costs can be classified in different ways, for example in according to the used method of dividing the cost into constant and variable, and it will affect the results;

- the need in the availability of information on the size of the full costs for most companies, primarily for pricing of the product, as the prices in the long term are to cover all costs of the enterprise. In the absence of data about the total cost, the risk of non-compliance of the conditions is great;

- the presence of some difficulties in the formation of external reporting.

Currently the "direct - costing" is widely spread in Germany, mostly in large enterprises. This method is used there by 54% of enterprises. This system is

especially popular in food industry - 71,4%, and in construction - 67,4% of enterprises. G.Benner shows the results of the sample survey conducted by him at enterprises of the processing industry in the district of the city of Stuttgart, where the number of employees was from 50 to 1000 people: 40.8% account for the cost occurred in places in accordance with the "direct - costing" system, and 28.9% calculate cost on the "direct - costing" system.

In 1988 Lenkom's study about the organization of the account of expenses for North -German industrial enterprises was published. Both large and small enterprises of different patterns were selected for this study. The results showed that 65.7 per cent of surveyed enterprises calculated results on the products by the method of "direct - costing".

Indeed all over the world from 30% to 50% of companies use the "direct - costing" for internal calculations.

In addition to Germany, the "direct - costing" is widely distributed in Canada and the UK. While in the United States and Japan it is used relatively little, but, nevertheless, its share is still significant, it exceeds 30%. It should also be noted that the "standard – costing" is mandatory. Because it is necessary to give the information about the activities of the enterprise in state bodies using this method. So, you can see that the "direct - costing" stands out from the great amount of different methods. Indeed, despite the mandatory use of the "standard - costing", this method is also used on more than 50% of enterprises.

Summing up, the "direct-costing" is the system of management accounting which is based on categories of variables (or partial) of the costs. This system has some shortcomings, but it has some advantages compared to the full system of accounting and distribution costs. The choice of one of them depends, first of all, on the practical benefits of the application of one or another system.

Obviously, the ideal systems or methods do not exist. Each system and each method has its advantages and disadvantages. Despite these difficulties, due to the direct costing the analytical capabilities of the account expand, and you can evaluate the impact of different types of costs profit.

1.2. The role, significance and classification of costs in the "Direct-costing" system

The cost of production is expressed in monetary expenses for its production and sales. Accounting system "Direct - costing" requires a clear detailed classification of costs for monitoring their behavior in the process of functioning of the enterprise.

All the costs comprising the cost of products (works, services) are not the same not only in their composition, but also in the value of the production of goods, performance of works and services. Some of the costs are directly associated with manufacturing and production (cost of raw materials, wages of workers and other), others - with the management and maintenance of production (the cost of maintenance of management personnel, provision of production process the necessary resources for the maintenance of fixed assets in working order and so on), and others, not having the direct relation to the production, are still included in production costs (expenses for the reproduction of mineral resources, the social needs of the population and others). In addition, part of the costs is directly included in the cost of a particular type of final products, and the other part, in connection with the production of several types of products is included indirectly.

In our opinion, the accounting system "Direct-costing" the behavior of costs, first of all, depends on the management problem to be solved.

Solving each task must meet its classification criterion.

Costs are grouped according to their place of origin, types of products (works, services) and expenses.

The expenses are grouped in accordance with their origin: manufacture departments, working shops, divisions and other structural units of the enterprise. Such grouping of the expenses is necessary for the organization of internal accounting and determining the production cost of products.

According to the economic content, it is advisable to group the costs

representing economic elements and article costing.

The economic element is called the primary, homogeneous appearance of the cost of production and sales, which at the enterprise level could not be broken down into its component parts.

The grouping of expenditures by economic elements (Fig. 1) shows that it is used to manufacture products, what is the ratio of individual items of expenditure in the total expenditure. In this case, the elements of material expenses reflect only purchase materials, products, fuel and energy. Wages and social contributions are reflected only with regard to the personnel main activity.

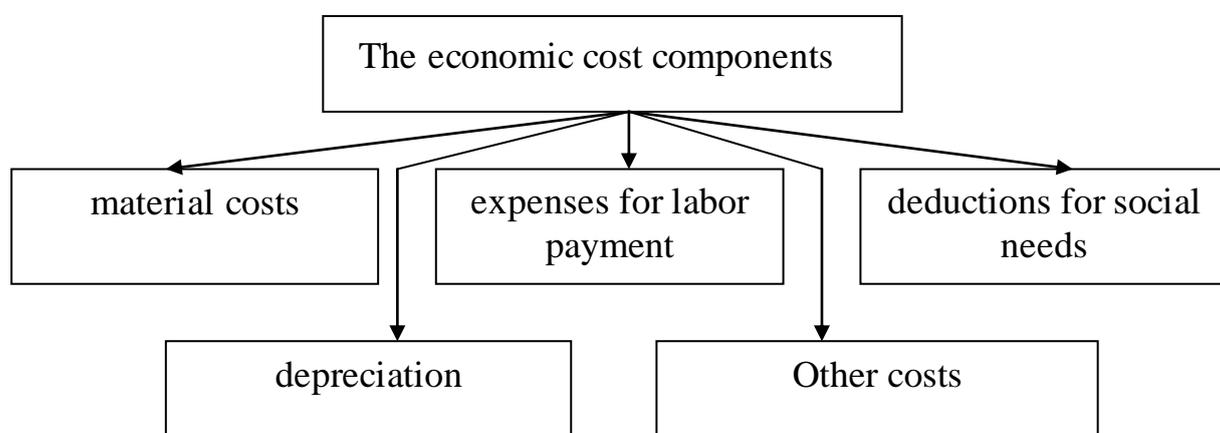


Fig. 1. The expenses of the organization to cost components¹

Current Regulation on composition of costs included in the cost of production, establishes the following list economically homogeneous cost elements for all organizations :

1. Production material costs
2. Expenses for labor remuneration of industrial character
3. The social security contributions related to the production
4. Depreciation of fixed assets and intangible assets production purpose
5. Other costs of production nature

While grouping expenses according to economic the principle of the unity of

¹ Волкова О.Н. Управленческий учет. - М.: Проспект, 2009. – 390с.

the economic nature of expenses is realized, i.e. no matter where they occur (in what part of the enterprise) and what the objectives are. It is only important to unite the costs into one group (element), if they have the same economic nature. This grouping is determined by the general need of the enterprise in material resources, the amount of depreciation of fixed assets, expenses for wages and other monetary costs of the company.

This group has a general nature, regardless of ownership forms and reflects the cost of production of all products. The structure of the cost price of all products is determined in accordance with estimates of costs, that is, the specific weight of each item in total costs. Thus, the grouping of expenditures according to economic elements allows to determine the most significant cost items.

Despite its importance, atomic grouping of the cost of production cannot meet the needs of the company in exercising control over the costs of a place of their origin and purpose. In this case, in planning, accounting and calculation of cost of production costs are grouped in accordance with calculation items of expenditure. In the guidelines on planning, accounting and calculation of cost of production in industrial enterprises standard grouping of items costing is established.

The classification adopted in the production costs for the items performs a specific function in the system of calculation of production, but does not meet the tasks of cost management. Therefore, in addition to these groups, production costs are classified according to the number of other characteristics (table 1).

The appropriate classification of expenses is determined to solve each of these problems. Management decisions are mainly directed into the future, so managers need detailed information about the expected expenditure and income. In order to obtain such information the following types of costs are identified:

- variable and fixed;
- costs accounted and not considered in calculations when making decisions;
- deadweight costs;
- imputed costs;
- incremental costs;

- the marginal costs and revenues;
- planned and non-planned.

Table 1

Classification of costs on output of products²

Classification type	Unit costs
According to the economic role in the production process	Basic and overhead
Composition (homogeneity)	Singleton and comprehensive
According to the way of inclusion in the cost price of production	Direct and indirect
In relation to the volume of production	Variables, conditional variables and semi -fixed
According to frequency of occurrence	Current and one -off
For participation in the production process	Industrial and commercial
Efficiency	Productive and unproductive

Variable costs are the costs, the amount of which varies in direct proportion to production volume, permanent ones are the costs, the value of which does not depend on changes in the volume of production.

The process of decision-making involves the comparison between several alternatives to choose the best of them. Costs accounted for in calculations when making decisions, are the costs on which the decision is depended. The costs not taken into account do not depend on the decision.

² . Ермакова Н.А. Организация учета в системе «директ-костинг» // Современный бухгалтер. – 2010. - № 6. – С.20-22.

The deadweight cost is one of the last period, which appeared due to the earlier decision and cannot be modified in the future. Such costs are not taken into consideration when making decisions. It is necessary to distinguish the concepts of the deadweight costs and expenses not taken into account.

Imputed (otherwise referred to imagined) costs - these are costs that are added when making decisions in the event of limited resources, but in the future they may not appear. In fact, these costs characterize the enterprise on the use of production resources, which are either lost or donated for the benefit of another alternative solution. The imputed cost is considered only in conditions of limited resources; if the resources are not limited, the imputed cost is equal zero.

The incremental costs arise when making additional batch of products. If, as a result of the decision fixed costs are changed, the increase is considered to be marginal, otherwise incremental costs. If the decision on issuance of additional batch of products does not entail increase in fixed costs, incremental costs are zero.

Marginal costs and revenues are additional costs and income in the calculation not on the entire output, but per unit of production.

Thus, various groupings of costs make it possible to see the company's management the costs of the production of all products (grouping by cost component); implementation of certain types of goods (classification of expenditure); what contribution permanent costs cover, make individual products and how economies of scale (the division of costs into fixed and variable) can be achieved; efficiency of individual business units (using the "cost centers") and other. The heads must analyze the data and decide in what areas there is a need to reduce costs in the enterprise.

1.3 Theoretical and methodological basis of the analysis of break-even activity of the enterprise

The head of any enterprise, in practice, has to take a variety of management decisions. Every decision relating to prices, costs of the enterprise, the volume and

structure of sales, ultimately affects the financial results of the enterprise. Simple and very accurate way of determining the relationship and interaction between these categories is the establishment of a break-even point or defining the point at which the company revenues fully cover its costs.

One of the powerful tools of managers in determining the break -even point is the analysis of break-even production or analysis of the cost - volume – profit (Cost - Volume-Profit; CVP - analysis).

This type of analysis is one of the most effective means of planning and forecasting activities of the enterprise. It helps the management to identify the optimal proportions between variable and fixed costs, price and sales volume, minimizes business risk. Accountants, auditors, experts and consultants, using this method, can give more in -depth evaluation of the financial results and more precisely justify recommendations for improvement of the work of the enterprise.

Break-even analysis was developed in 1930 by the American engineer Walter Routestream as a method of planning, and was called "the Schedule of the critical volume of production"³.

The main objectives of break-even analysis are to determine:

- break-even sales volume (threshold of profitability, cost recovery) at specified ratios of rates, fixed and variable costs;
- security zone (break-even) of the enterprise;
- required amount of sales for any given amount of profit;
- the critical level of fixed costs for a given level of marginal income;
- critical sales price when a given volume of sales and the level of the variable and fixed costs.

The foundation of the methodology is both the division of costs depending on changes in the volume of production on variable and fixed and using marginal revenue categories:

³ Фролова М.Н. Управленческий учет и современный бизнес // Финансовая газета. – 2009. - № 10. – С.15-16.

-calculations for the method of break-even analysis requires compliance of certain conditions: the necessity of dividing expenses into two parts: a variable and constant;

-the variable costs are changed proportionally to the volume of production (sales);

-the fixed costs do not change within relevant (significant) volume of production (sales), i.e. in the range of business activity, which is based on production capacity and demand for products;

-the identities of production and sales of products within the considered period of time, i.e. the stocks of finished products are not significantly changed;

-the production efficiency, the level of prices on production and consumption of production resources will not be subject to significant fluctuations during the analyzed period;

-proportion of revenues to the volume of sales.

Because of the above assumptions in practice are not always kept, the break - even point also should be the subject of sensitivity analysis at various fixed and variable costs, and sales prices.

The advantages of break-even analysis include:

-ease of use;

-visibility in the planning of profit;

-illustrated by demonstrating the impact of operational changes on the profitability of the enterprise;

-assistance in determining the optimum ratio of fixed and variable costs.

Thus, with the purpose of control over the formation of profit is break -even analysis. Breakeven analysis of the company allows the entrepreneur, the company management to assess the current situation and prospects of business development.

Having examined the concept and objectives of break-even analysis activities, it is advisable to go to study marginal revenue and factors affecting the level of break-even activity of the enterprise.

Key elements of the analysis of the cost - volume – profit are marginal

revenue, profitability threshold (break-even point), operational leverage and margin of safety. The contribution margin is the difference between revenues from sales of products (works, services) and the sum of the variable costs. In other words, the contribution margin is the amount of coverage or the share of the revenue that remains on the compensation of fixed costs and generate profit. At high contribution margin fixed costs are reimbursed quickly, and the company receives a high income.

There are two ways of determining the value of the marginal income.

In the first method of proceeds of the enterprise for the production realized all variable costs are subtracted, i.e. all direct costs and overheads (production costs), depending on the volume of production and belonging to the categories of variable costs.

In the second method, the value of the marginal income is determined by adding the fixed costs and profits of the enterprise.

Marginal revenue (M) is calculated by the formula :

$$M = RFS - C_{var} = P + C_{fix} \quad (1),$$

where BP - revenue from sales;

C_{var} - total variable costs.

P - profit;

C_{fix} - fixed costs

Contribution margin, in addition, is calculated per unit of the products manufactured and sold by this company. The contribution margin per unit of production is the difference between the selling price of a unit of this product and variable costs per unit. Constant costs are not allocated" on groups of commodities and products, and remain the total amount. At least, it is necessary that marginal was sufficient to cover fixed costs, and during normal operations was a profit. The contribution margin per unit of output is determined by the following formula :

$$M = p - C_{var.u} \quad (2),$$

where p - is the sale price;

$C_{var.u}$ - variable costs per unit

When selling goods there are revenues in excess of variable costs, it is necessary to say about the size of the marginal profit. If the company manufactures a wide range of products when conducting margin analysis of the whole range, you can determine the most profitable products, and, of course, determine the products which are no sense to produce because of their unprofitability. And, due to the fact that because of the constant changes in the markets, the contribution margin depends on the price and costs that are necessary for manufacture. And in order to increase profit margin, you must either raise the price for the goods or sell it more, and may need to do both. The contribution margin is the source, with the help of which fixed costs are covered and profit is formed. In other words, it turns out that the profit margin is equal to the difference between income and variable costs.

Therefore, the contribution margin is impossible without constant costs and profits. This is the contribution that you need to make in order to generate net income and covered fixed costs. In the "Direct-costing" system the scheme of the income statements is multi-staged. They contain at least two financial indicators: marginal revenue and profit.

The scheme of calculation of the marginal revenue of the enterprise is presented in table 2⁴.

Table 2

Income statement on the "Direct-costing" system

The name of parameters	Value
Revenues from sales of products (RFS)	RFS
Variable costs (C _{var})	C _{var}
Marginal revenue (M)	$M = RFS - C_{var}$
Fixed costs (C _{fix})	C _{fix}
Profit (P)	$P = M - C_{fix}$

⁴ Каверина О. Д. Управленческий учет: системы, методы, процедуры. – М.: Финансы и статистика, 2008. 352 с.

Income statement does not have to be two-staged. If variable costs divided into manufacturing and non-manufacturing, the income statement will be three-staged. In this case, at the first stage the production margin income is determined as the difference between the volume of sales and variable costs of production. On the second stage the difference between production margin and doing other variable costs determines the profit margin in the whole firm. At the third stage profit is determined by deducting from the total amount of margin income the amount of fixed costs.

Under the average marginal income we understand the difference between the price of products and average variable cost. Average marginal income reflects the contribution of the unit in covering fixed costs and profit.

The norm marginal revenue is called the fate of the magnitude of the margin income of the sale or (for some products) a share of the average profit margin in the price of goods.

The use of these indicators helps to quickly solve some tasks, for example, to determine the amount of profit under different production volumes.

The action of methods of breakeven analysis and operating lever is based on the behavior of expenses: variable costs vary with the volume of production, the so-called fixed costs remain constant, i.e. the effect of variable and fixed costs profit of the company is disproportionate (Fig.2).

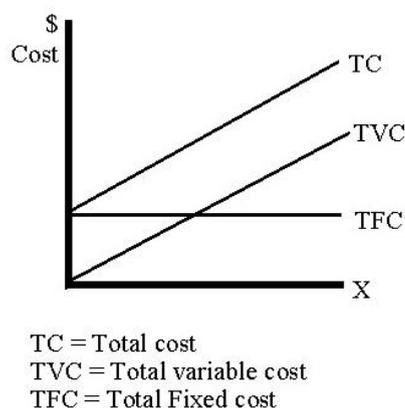


Fig.2. Total cost functions based on constant productivity⁵

⁵ Каверина О. Д. Управленческий учет: системы, методы, процедуры. – М.: Финансы и статистика, 2008. – 352 с.

The break-even point (a critical point, the point of equilibrium, the "dead point") shows the volume of production and sales of products (goods, works, services), at which the organization has neither profits, nor loss and at the expense of proceeds covers the expenses, in other words this is sales revenue, which is necessary for the enterprise to cover all their costs. It can be expressed in the number of units that need selling to cover all the costs. The break -even point as cash flow is a situation when there is no cash balance or deficit.

There are several ways to determine the break-even point: using categories marginal income; formula (algebraic, economic-mathematical), graphics. The first two are founded on the use of method of equations; the latter is based on making break even graphic, but any of these methods are associated with the use of equation costs and equations of revenue.

The total cost equation is: $y = ax + b$

For the analysis of break-even it is appropriate to use analytical parameters in equation costs. In this case, the equation of the cost will be :

$$C = C_{var.u.} * V + C_{fix}, (3)$$

where C- is the total cost;

$C_{var.u.}$ - variable costs per unit of production;

V- volume production units;

C_{fix} - fixed costs of the period.

The equation of revenue can be presented as the equation :

$$RS = p * V, (4)$$

where RS - revenue from sales of products;

p- is the price unit sales of products;

V - sales volume, units

The main condition of calculation of the critical point and holding of break - even analysis is the equality of volumes of production and sales, i.e. $V_p = V$

Now we consider different methods of such analysis.

Formula (mathematical) method: the method of the equations is used in two cases:

(a) if the break-even point calculation is based on the use of categories marginal income;

(b) if properly critical volume of production (sales) is calculated, and if the output (sales) is calculated on the base of a predetermined, planned profit.

In case (a) calculation of the critical volume is based on the equality of revenues and costs, that is the equation: $R = C$. Expanded equation is :

$$p \cdot V = C_{\text{var}} \cdot V + C_{\text{fix}} \quad (5)$$

Its simple transformations allow generating equality :

$$p \cdot V - C_{\text{var}} \cdot V = C_{\text{fix}} \quad (6)$$

In view of the equality of production and sales total factor Q may be imposed for the bracket :

$$V \cdot (p - C_{\text{var}}) = C_{\text{fix}} \quad (7),$$

then calculated as the ratio of fixed costs to the difference between the selling price and variable cost per unit of production :

$$V = C_{\text{fix}} / (p - C_{\text{var}}) \quad (8)$$

The difference between the sales production units and variable costs per unit of output is marginal revenue per unit of production (md) and is reflected by the formula :

$$md = p - C_{\text{var}} \quad (9)$$

Thus, the break-even point calculation on the basis of the category of marginal income is possible using the formula:

$$V = C_{\text{fix}} / md. \quad (10)$$

In case (b) two variants of calculation of the volume of production (sales) are considered:

when projected profit equals (P) 0;

when projected profit (P) is not 0.

First variant provides the calculation of critical production volume. It is based on the equality of revenues and costs: $R = C$ and was discussed earlier on the

basis of use of marginal revenue categories.

Second variant provides the calculation of the volume of production at the planned profit. It is also based on ratio of cost and revenue, however there is no equality between them in this case. Converted deployed equation costs and the equation of revenue becomes :

$$p*V = C_{var}*V + C_{fix} + P \quad (11)$$

Further transformation, similar to the previously produced, allows to calculate the volume of production at the planned profit using the formula :

$$V = (C_{fix} + P) / (p - C_{var}) \quad (12)$$

Or through the category of marginal income:

$$V = (C_{fix} + P) / md. \quad (13)$$

The method of the equations used in the CVP-analysis, allows to answer practical issues of business:

-what is the break-even activity in natural and cost expression?

-what should the volume of production and sales be to ensure predefined (planned, target) profit?

-how will break even change if you increase/decrease costs, unit variable costs, sales price per unit of output?

The graphical method of finding the break-even point (rate of return) is to build an integrated graphics "cost - volume -profit. The build of sequence schedule is the following:

-plot on the graph a line of constant costs, which has a direct parallel to the abscissa axis;

-select any point on the x-axis, i.e. any volume. To find the break-even point it is necessary to calculate the value of total costs (fixed and variable). Build a line directly on the graph, corresponding to that value;

-again choose any point on the x-axis and find the sum of sales proceeds. Build a line directly responsible to that value.

The break-even point on the chart is the point of intersection of the lines,

constructed by the value of costs and revenues (Fig. 3)⁶.

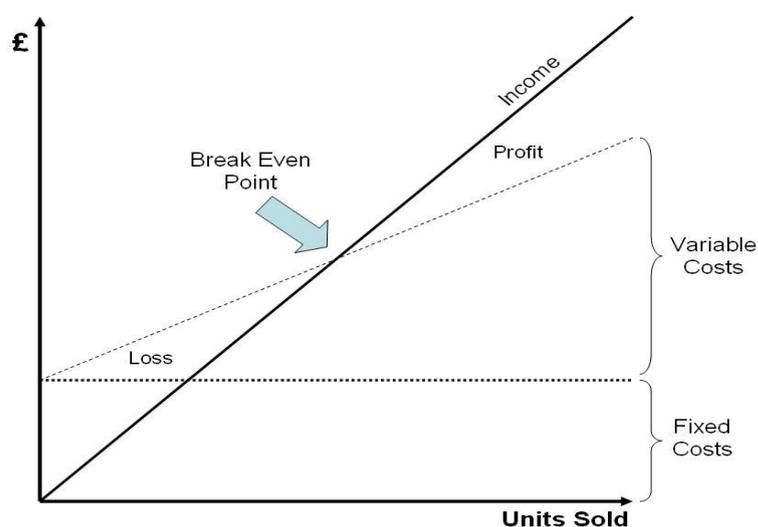


Fig 3. The determination of break-even point (break)

Depicted in Fig. 3 the break-even point (rate of return) is the point of intersection graphs of gross profit and the total cost. The amount of profit or loss is shaded. In the break-even point the revenue gained by an enterprise is equal to its total costs, the profit is equal to zero. The revenue corresponding to the break - even point is called the threshold revenue. The volume of production (sales) in the break-even point is called the threshold volume of production (sales). If the company sells products below the threshold of sales volume, it loses, if it sells more it gains profits.

But in practice, they rarely perform plotting of break-even, as it is a very labor-intensive process, in management accounting the method of the equations is often used.

The most important indicator in break-even analysis is a margin of safety.

Margin of safety is a value that indicates the excess of proceeds from realization of production (works, services) over the threshold, providing breakeven implementation. It shows how it is possible to allow a reduction in revenue from sales before the enterprise starts to lose. In absolute value it is calculated as the

⁶. Алборов Р.А. Бухгалтерский управленческий учет (теория и практика). - М.: Дело и сервис, 2008. – 410с.

difference between the actual (or estimated, expected sales volume (Vf) and the volume of sales at the critical point (Vbp), measured both volume (%) (Vf.un and Vbp.un) and value (soul) values using the formulas :

$$Ms = Vf.un - Vbp.un \quad (14) \text{ or}$$

$$Ms \text{ soul} = Vf.s - Vbp.s. \quad (15)$$

Obviously, the higher (more) absolute value of margin of safety margin, the more stable financial condition of the organization is.

For acceptance of administrative decisions it is more preferable to compare to the absolute value is a relative indicator of margin of safety factor, which is measured in interest-rate margin is margin of safety (Ms, or % of Ms). It shows the percentage of reduction of sales volumes, which could allow the organization painless for its financial condition:

$$\% Ms = [(Vf.un - Vbp.un) / Vf.un] \cdot 100\%, \quad (16) \text{ or}$$

$$\% Ms = (Ms.u / Vf.un) \cdot 100\%. \quad (17)$$

Another important indicator in break-even analysis is the operating lever.

Production leverage (operational leverage) is the mechanism of profit control depending on changes in the volume of realization of production (works, services).

The effect of the operational leverage is that any change of proceeds from the sale always generates stronger changes in profits. To calculate the effect or impact of the lever a number of indicators is used. This requires the separation of costs on variable and fixed with the help of intermediate results. This effect is caused by the different degree of influence of the dynamics of variable costs and fixed costs financial result if measuring the volume of issue. Affecting the value not only variable but fixed costs, you can determine how many percentage points increase profits. In other words, the effect production lever indicates the degree of sensitivity of profit from sales change sales revenue. Production leverage is determined by the following:

$$\text{Result (profit and losses)} = M - C_{\text{fix}} \quad (18)$$

$$\text{The impact of the operational leverage} = M / \text{Result} \quad (19)$$

Production leverage is a measure that can help to choose optimal strategy of the enterprise in the management of costs and profits. The value of production of leverage may be changed under the influence:

- prices and sales;
- variable and fixed costs;
- a combination of any of these factors.

2. THE ANALYSIS OF BREAK-EVEN ACTIVITY OF THE ANDIZHAN BRANCH OF "UZBEKTELECOM"

2.1 Organizational - economic characteristics of the Andizhan branch of "Uzbektelecom"

Andizhan branch of "Uzbektelecom" was established as the result of reorganization through joining JSC "Andizhan Telecom "Uzbektelecom" in 2001 according to the Decree of the Cabinet of Ministers № 488 dated December 27, 2001 "On measures on preparation for privatization of joint-stock company "Uzbektelecom".

Introduction of modern telecommunication technologies in Andizhan began in 1994. Installation work was carried out and the operation ATS mark "Kvant-2048" was launched in the regional centers of Balykchi and Ulugnor. In 1996 together with company DAEWOO West Korea has carried out the construction and launch of switching system 22-ATS/AMTS and 24 ATS total capacity of 12,000 ports were carried out. These were the initial stages of digitalization of telephone communication of Andizhan region. Naturally, new opportunities, new kinds of services, which our customers have started to use, appeared.

In 2000 in the framework of the project EDCF (the Fund of development of economic cooperation) of the Korean Republic to the telecommunication network of the branch of Andizhan Telecom" 4 digital telephone stations with total capacity of 21,000 rooms were put into operation, also in the cities of Andizhan, Asaka 8000 rooms, Karasuv 2000 rooms, city Honobod 3,000 rooms were added. Fiber optic communication lines, connecting, Andizhan with district centers Asaka, Markhamat, Bulakbashi, Khodjaabad, Jalalkuduk and Kurganteppa, as well as the cities of Karasu and Khanabad a total length of 150 km were laid and hardware digital transmission systems DSM – 155 was launched.

In 2004 within the framework of the Japanese project JBIC in the district of Andizhan, Pakhtaabad, Izboskan, Shahrihan, Buz, Ulugnor and Altinkul trunk cable fibre-optic lines with the length of 273 km were laid and the transmission

system put into operation.

In accordance with the decree of the President of the Republic of Uzbekistan dated February 14, 2005 № f -2132 "On measures for provision of investment cooperation between companies and banks of China in the sphere of information-communication technologies" much work on replacement of analog PBX telephone network area was done. In particular, a contract was signed for the reconstruction and development of telecommunication network of Uzbektelecom at the expense of the credit of the Chinese Government, including for the reconstruction of telecommunication networks of the branch "Andizhan Telecom.

For this project ATS, 37, 46, Andizhan and obsolete analog stations, located in regional and district centers were replaced and modern digital stations were expanded, serving more 50500 rooms and digital telephone stations with a capacity of 2400 channels were commissioned .

Currently the telephone numbers throughout the area have been transferred into seven -digit numbering. Now subscribers of the regional and district centers can use the high quality communication services.

In Andizhan region the initial stages of digitalization of switching equipment and hardware digital transmission systems are completed. Now the task is the development and replacement of switching systems and implementation of digital systems of transmission in a rural area with high quality communication services that meet world standards.

In addition, a new billing center for communications services was launched. Cash operators enter payment information on phone numbers of clients.

A number of activities in the branch of "Andizhan Telecom in social areas were conducted. The work on ensures, labour protection, creation of favorable conditions for workers, medical examinations and so on is constantly held.

The work on expansion and development of rural telecommunication network of the branch of Andizhan Telecom is held. Projects were started in the framework of the General agreement between the company and local producer JSC "Koinot" is based on a digital hub "El-SGM" in rural areas Madaniyat, Arcilla, Janicek,

Kambarata, Cimen, Navbahor, Nyman, Maslakhaty, Komaki, Honobod, Otaci.

2.2. Determination of break-even point services

For the analysis of break-even in the first place it is necessary to divide all the production costs of services on variable and fixed (table 3).

Table 3

Variable and fixed production costs of the services of the Andijan branch of "Uzbektelecom"⁷

Types of services	Variable costs									Fixed costs		Full cost	
	Material expenses		Expenses on wages and social contributions		Amortization of equipment		Other costs		Total variable costs				
		In % to the total cost		In % to the total cost		In % to the total cost		In % to the total cost		In % to the total cost			
Telegraph	256932,5	11,9	639796,3	29,7	209931,2	9,7	252932,6	11,7	1 359 592,6	55,9	796411,4	44,1	2156004
International TC	330998,7	9,5	736542,8	21	248730,5	7,1	548292,2	15,7	1 864 564,2	55,9	1634739,2	44,1	3499303,4
Intercity TC	110133,1	6,1	516142,3	28,7	248730,5	13,8	42884,7	2,4	917 890,6	55,9	880244,19	44,1	1798134,79
Local TC	98345,9	12,9	234857,5	30,7	123641,4	16,2	55825,2	7,3	512 670	55,9	251498,34	44,1	764168,34
Internet	123155,7	10,5	245675,9	20,9	134895,9	11,5	45146,7	3,8	548 874,2	55,9	628745,85	44,1	1177620,05
Total	919565,9	9,7	2373014,8	25	965929,5	10,2	945081,4	10	5 303 591,6	55,9	4 191 639	44,1	9495230,6

As it can be seen from table 3, variable costs of production services of the Andizhan branch of "Uzbektelecom" in 2013 were 5 303 591,6 thousand sums ,or 55,9% from the total cost. The share of fixed costs is 44.1 %, which in absolute terms amounts to 4 191 639 thousand sum.

Breakeven for the Andizhan branch of "Uzbektelecom" is such a state when

⁷ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2012-2013

the activity is no profit or loss. This sales revenue, which is necessary for the company started to get the profit. It can be expressed in units of services that should be provided to cover costs, then each additional unit of rendered services will be a profitable branch.

The difference between the actual and the breakeven value of sales is a security zone (zone of profit), and the more it is, the stronger the financial condition of the studied branch is.

Now let's calculate the profit of the branch margin method for 2012-2013 (table 4)

Table 4

Dynamics of basic indicators of activity of the Andizhan branch of
"Uzbektelecom"⁸

Indicators	2012 year	2013 year	Deviation in %
Revenues from sales	9 554 376	10 931 689,6	14,4
Variable costs	6 400 681	5 203 591,6	-18,7
The profit margin	3 153 695	5 728 098	81,6
Fixed costs	2 038 719	4 191 639	105,6
Profit	1 114 976	1 536 459	37,8

As it can be seen from table 4, in 2013, the profit of the branch increased by 37.8%, variable costs decreased by 18.7 %, and the constant increase significantly

To determine the break even in the conditions of a branch analytical and graphical methods are used.

The break-even point graphical method is determined on the example of international communication services. Table 4 shows the indicators for rendering such services (table 5)

⁸ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2012-2013

Table 5

Indicators provide services of international telephone communication⁹

Indicators	Scope of services	
	Total, thousand soum.	One item, sum.
Revenues from sales	4 306 322, 6	849,5
Variable costs	1 864 564,2	367,8
The profit margin	2 441 758, 4	481,7
Fixed costs	1634739,2	322,4
Profit	807019,2	159,3

Horizontal graph shows the sales volume of services in natural units, vertically shows the cost of goods sold and services income, which together comprise revenues (fig.4).

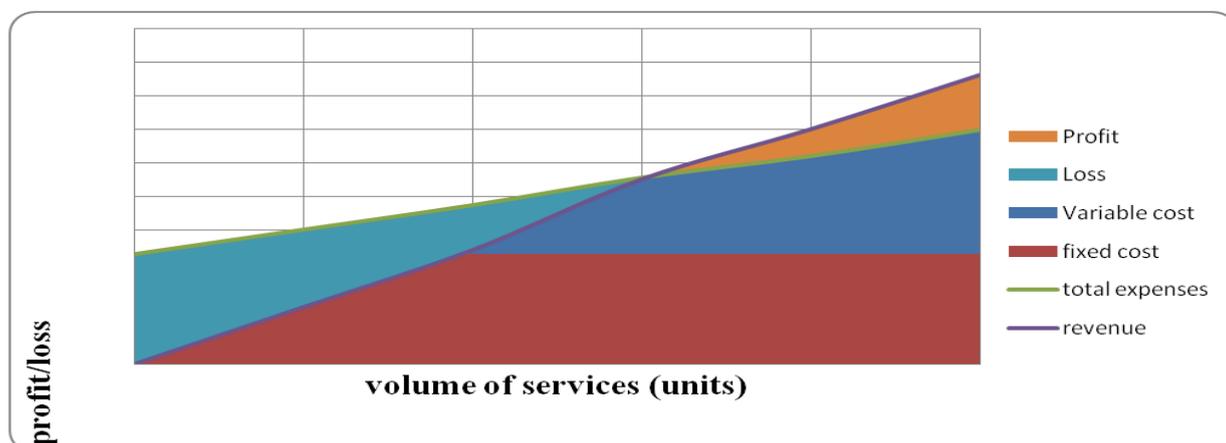


Fig.4. Schedule break-even for services of international telephone communication¹⁰

According to the schedule it can be set at which volume of realization of services, the company will make a profit, and at which it will not. You can also determine the point at which the costs will be equal to the proceeds from the sale of services. It got the name of a point of break-even sales volume of service, or rate of return, or the point of cost- recovery, below which the production will be unprofitable. The difference between the actual and the breakeven value of sales is security zone.

8-9 according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

The break-even point for international telephone communication services is approximately 3393,5 thousand units, with volume rendering services above a given point on the branch will make a profit, below it will make loss.

But in practice, the break-even schedule is rarely built, as it does not give the absolute accuracy of the result. Therefore, let us calculate the break-even point for all kinds of services, using the method of the equations. Initial data for calculation of break-even activity of the Andizhan branch of "Uzbektelecom" is presented in table 6.

Table 6

Initial data for calculation of break-even activity of the enterprise of the Andizhan branch of "Uzbektelecom"¹¹

	The volume of serv. thous. soum	Variable cost		Fixed cost		The profit margin		Revenue		Profit (loss)	
		total, thous. soum	per service, soum.	total, thous. soum	per serv., soum	total, thous. soum	per serv., soum	total, thous. soum	per service, soum	total, thous. soum	per serv., soum
Telegraph	56 403,8	1359 592,6	24,1	796411,4	14,1	719 607,9	12,9	2 079 200,5	36,9	-76803,5	-1,2
International TC	5 069,3	1 864 564,2	367,8	1634739,2	322,4	2 441 758,4	481,7	4 306 322,6	849,5	807019,2	159,3
Intercity TC	10 292,3	917 890,6	89,2	880244,19	85,5	1 369 626,4	133,1	2 287 517	222,3	489382,21	47,6
Local TC	101 400	512 670	5,06	251498,34	2,5	146 430	1,44	659 100	6,5	-105068,34	-1,06
Internet	90 823,68	548 874,2	6,04	628745,85	6,9	1 050 675,3	11,6	1 599 549,5	17,6	421928,95	4,7
Total	263989,08	5 203 591,6	x	4 191 639	x	5 728098	x	10 931 689,6	x	1536459,7	x

The method of the equations is based on the calculation of the profit according to the formula:

$$P=(p*V)-(Cvar.u.*V)- Cfix \quad (20)$$

As profit in the break-even point is equal to zero, equation break-even will be:

$$p*V= Cvar.u.*V+ Cfix \quad (21)$$

Let's determine the break-even point (break) with the help of the method of the equations for international telephone communication services:

¹¹ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

$$849,5x = 367,8x + 1634739,2$$

$$481,7 = 1634739,2$$

$$X = 3393,69 \text{ ed,}$$

As it is evident from the above calculations, the profitability of implementation is achieved when the volume of services in international TC is 3393,69 thousand units.

The break-even point can be calculated in monetary units. To do this, simply multiply the number of units of services in the break-even point by the unit price of services: $BP = 3393,69 \times 849,5 = 2882939,66$ thousand soums

Thus, the critical volume of realization of services of international TA is 2882939, thousand soums.

Using the method of the equations, let's determine the break-even point for all kinds of services of the Andizhan branch of "Uzbektelecom" (table 7)

Table 7

The calculation of break-even sales volume of services of the Andizhan branch of "Uzbektelecom"¹²

	The volume of serv. thous. s	Variable cost		Fixed cost		The profit margin		Revenue		Profit (loss)		The break-even volume render..services	
		total, thous. soum	per service, soum.	total, thous. soum	per service, soum	Thous. units.	Thous. soum						
		Telegraph	56 403,8	1359 592,6	24,1	796411,4	14,1	719 607,9	12,9	2 079 200,5	36,9	-76803,5	-1,2
Internat. TC	5 069,3	1 864 564,2	367,8	1634739,2	322,4	2 441 758,4	481,7	4 306 322,6	849,5	807019,2	159,3	3393,69	2882939,66
Inter city TC	10 292,3	917 890,6	89,2	880244,19	85,5	1 369 626,4	133,1	2 287 517	222,3	489382,21	47,6	6613,4	1470158,82
Local TC	101 400	512 670	5,06	251498,34	2,5	146 430	1,44	659 100	6,5	-105068,34	-1,06	174651,6	1135235,4
Internet	90 823,68	548 874,2	6,04	628745,85	6,9	1 050 675,3	11,6	1 599 549,5	17,6	421928,95	4,7	54389,78	957260,13
Total	263989,08	5 203 591,6	x	4 191 639	x	5 728098	x	10 931 689,6	x	1536459,7	x	x	8741498,73

Also you can calculate the break-even point, using the method of marginal revenue, which is based on calculating the break-even point by the following

¹² according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

formula:

$$BP = C_{fix} / M \quad (22)$$

Figure 5 shows the chart contribution margin per unit of services on five main services of the Andizhan branch of "Uzbektelecom"

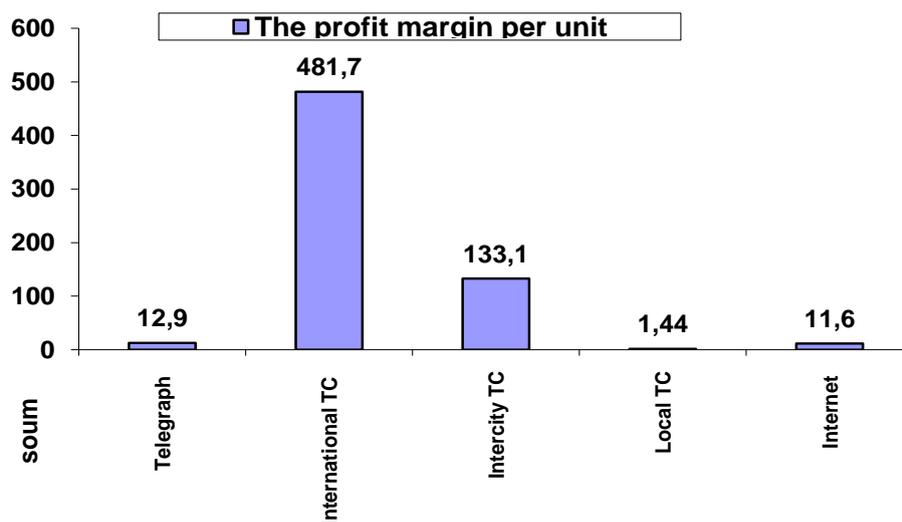


Fig.5. The profit margin per unit of services¹³

As it is shown in calculations and drawings, most of the marginal income per unit of service is the international communication services, and least for local telephone communication.

Let's determine the break-even point, using the method of marginal revenue (table 8).

Table 8

Determination of break-even point by margin income¹⁴

Types of services	Fixed costs	The profit margin per unit of services, soun	The break-even volume of services, thous. units
Telegraph	796411.4	12.9	62219.64
International TA	1634739.2	481.7	3393.69
Intercity TC	880244.19	133.1	6613.4
Local TC	251498.34	1.44	174651.6
Internet	628745.85	11.6	54389.78
total	4191639	x	X

According to the results above, we can conclude that the analytical method of

¹³ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

¹⁴ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

calculation of break -even (critical) sales and the security zone of the enterprise is more efficient than the graphics, so as not to draw each time schedule, which is quite time consuming. You can display a number of formulas and use them to calculate these indicators.

To determine how close a branch has come to the border, at which the activity becomes unprofitable, let's estimate the deviation of the actual volume of revenues from the provision of services from estimated break-even point by the formula:

$$D = R (\text{fact}) - BP \quad (23)$$

where R(fact) - actual sales revenue , thousand soum;

BP-is the break-even point

$$\text{The } D = 10\,931\,689,6 - 8\,741\,498,73 = 2\,190\,190,87$$

The above calculations show that the Andizhan branch has some absolute deviation of actual volume of revenues from sales of products from estimated break-even point (Fig. 6), which is estimated positively.

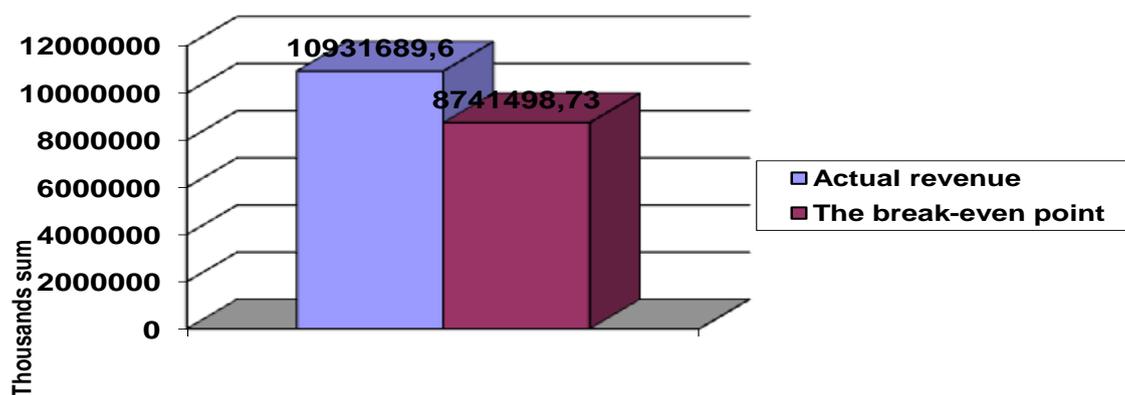


Fig. 6. The ratio of actual revenue of the Andizhan branch of "Uzbektelecom" and the break-even point in 2013¹⁵

The most obvious indicator of the degree of remoteness of the enterprise from

¹⁵ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

a break -even point is the stock of financial strength. It shows the percentage of sales volume reduction for the conservation of break-even level (or the percentage you want to increase sales volume to achieve a break -even level of work).

Now it is necessary to determine the Andizhan branch of "Uzbektelecom" stock financial strength (Sf) as the ratio of the absolute deviations from the break-even point to the actual value of sales proceeds:

$$Sf = (D : R (\text{fact})) \times 100 \% \quad (24)$$

$$Sf = (2190190,87 : 10\,931\,689,6) \times 100 \% = 20\%$$

Basing on this we can conclude that the branch has the stock of financial strength, equal to 20%, i.e. if the amount of the provision of services will be reduced to 20 %, the branch will be in a break -even condition, but if more than 20 it will suffer losses. By this method we calculate the absolute deviation of actual volume of revenues from providing services of their value break-even point and the stock of financial strength for each type of services of the Andizhan branch of "Uzbektelecom" (table 9 and figure 7).

Table 9

Calculation of the absolute deviations of the actual volume of proceeds from the break -even point and stock financial strength for each type of services of the Andizhan branch of "Uzbektelecom"¹⁶

	Revenue, thous. soum.	The break-even volume rendering services thous. soum.	Absolute deviation of actual volume of revenues from the break-even point, thous. soum.	The stock of financial strength, %
Telegraph	2 079 200, 5	2295904,72	-216704,22	-
International TC	4 306 322, 6	2882939,66	1423382,94	33,1
Intercity TC	2 287 517	1470158,82	817358,18	35,7
Local TC	659 100	1135235,4	-476135,4	-
Internet	1 599 549,5	957260,13	642289,37	40,2
Total	10931689,6	8741498,73	2190190,87	20

¹⁶ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

As it can be seen from the given data, the stock of financial strength has three types of services: international TA, long distance, TC and Internet services. The highest value of the stock of financial strength is typical for Internet service (40,2%), which is an indication that this type of services has more possibilities to maintain the designated level of profitability at reduction of proceeds from the sale. Therefore, we can say that Internet services are more resistant to changes in the market in terms of profits. The other two services have approximately the same value of this indicator. Services of Telegraph and Local TC do not have good financial strength.

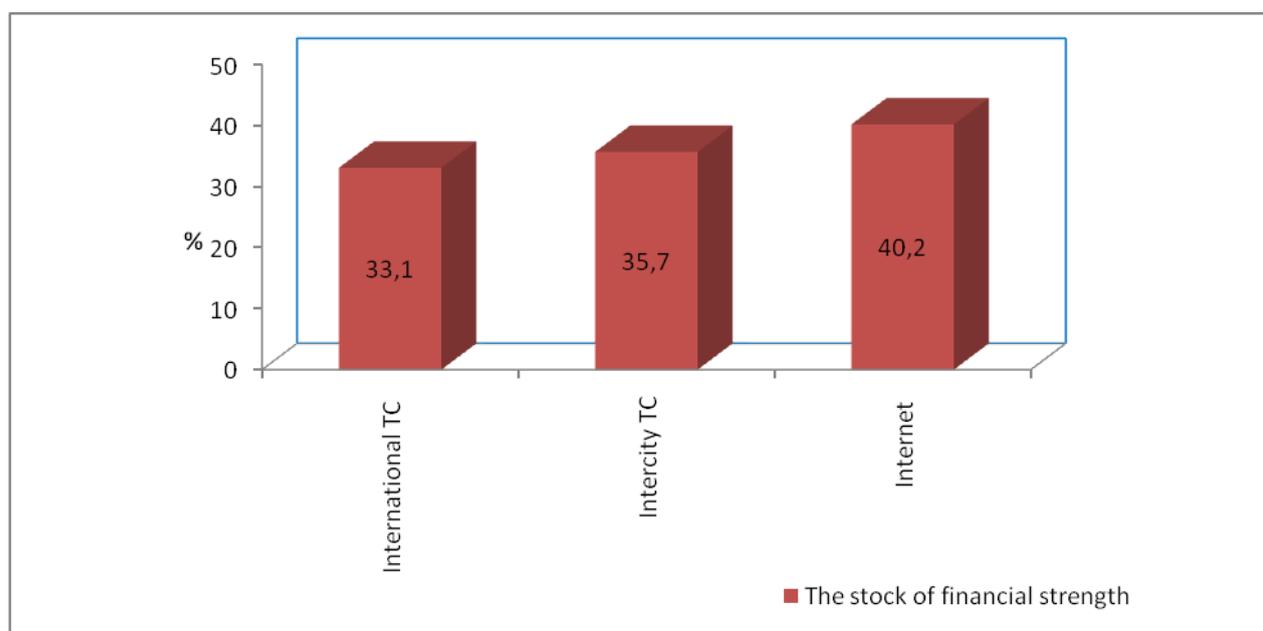


Fig. 7. Graphic interpretation of the stock of financial strength by types of services of the Andizhan branch of "Uzbektelecom"¹⁷

Another important indicator of break-even analysis is the operating lever (production leverage) and its acting power. The lever shows how the profit percentage changes when you change revenue by 1%. Power operating lever means that 1% increase/reduction in sales leads to the expected increase/decrease of profit by the amount n times greater than 1%. So even minor changes in sale

¹⁷ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

volumes lead to significant changes in the value of profit. With increasing sales volume (revenue) the profit increases, while reducing the volume of sales the profits reduces, creating a threat of loss occurrence. Determine the effect of the operational leverage for each service branch(table 10).

Table 10

The effect of the operational leverage for each service of the Andizhan branch of "Uzbektelecom"¹⁸

Indicators	Telegraph	International TC	Intercity TC	Local TC	Internet	Total
Revenue , thous.sum	2 079 200, 5	4 306 322, 6	2 287 517	659 100	1 599 549,5	10 931 689,6
Variable costs, thous. sum	1 359 592 ,6	1 864 564,2	917 890,6	512 670	548 874,2	5 303 591,6
The profit margin thous. sum	719 607,9	2 441 758, 4	1 369 626, 4	146 430	1 050 674, 8	5 728098
Fixed costs, thous. sum.	796411,4	1634739,2	880244,19	251498,34	628745,85	4 191 639
Profit, thous. sum	-76803,5	807019,2	489382,21	-105068,34	421928,95	1536459,7
The impact operational leverage	-	3,03	2,81	-	2,5	3,7

For the Andizhan branch of the validity of the operating lever is 3.7. This means that the reduction in revenue branch is 1%, the profit will be reduced by 3.7%, while revenue declined 20% of the profits will be zero.

It can be assumed that revenues will be reduced by 10% and will make 9838521,27 thousand soum . In this conditions, the profit of the branch will be reduced by 37% which is 967969,61 thous. soum.

Thus, it is possible to predict the changes of the profit of the branch, depending on changes in revenue of each service.

The value of operating lever may change under the influence of several factors:

-prices and sales;

¹⁸ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

- variable and fixed costs;
- combination of any of these factors.

Consider the impact of each factor on the effect of the operational leverage on the example of the services of interurban telephone communication of the Andizhan branch of "Uzbektelecom"(table 11)

Table11

Factor analysis of the effect of the operational leverage on the example of the intercity communication¹⁹

Indicator	Price change (+ 10%)		Change variable costs (-10%)		Change fixed costs (+10%)	
	Without changes	With the changes	Without changes	With the changes	Without changes	With the changes
Price, sum	222,3	244,53	222,3	-	222,3	-
Revenue ,thous soum	2 287 517	2516268,7	2 287 517	-	2 287 517	-
Variable costs, thous. soum	917 890,6	-	917 890,6	826101,54	917 890,6	-
The profit margin thous. soum	1 369 626, 4	1598378,1	1 369 626, 4	1461415,46	1 369 626, 4	-
The profit margin per unit, soum	133,1	155,3	133,1	142	133,1	-
Fixed costs, thous. soum.	880244,19	-	880244,19	-	880244,19	968268,6
The break-even point, unit	6613,4	5668,02	6613,4	6198,9	6613,4	7274,75
The stock of financial strength, %	35,7	34,4	35,7	39,8	35,7	29,3
Profit. thous.soum	489382,21	718133,91	489382,21	581171,27	489382,21	401357,8
The impact operational leverage	2,8	2,23	2,8	2,5	2,8	3,4

Based on the data, we can conclude that the greatest deviation of the operating lever 0.6 observed in the increase in fixed costs for the services of long-distance calls. These calculations allow to make a conclusion that the basis modify the

¹⁹ *according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

effect of the operational leverage is the weight of fixed costs in the total costs of the branch. The lower the share of fixed costs in the total amount of expenses of the enterprise is, the more you change the value of profit in relation to the rate of change of the revenue of the enterprise.

The mechanism of the operating lever has the reverse direction, regardless the decrease of the volume of rendered services more, it will decrease the amount of profit of the branch.

On the basis of the carried out calculations can also detect one more peculiarity: between operational leverage and profit there is interaction. The higher the income, the lower the effect of the operational leverage is and vice versa. This leads to the conclusion that the surgical arm of assessment, equalizing the ratio and the level of risk in process execute production activities.

3. PROPOSALS AND RECOMMENDATIONS ON IMPROVEMENT OF THE ACTIVITY OF THE ANDIZHAN BRANCH OF "UZBEKTELECOM"

3.1. Calculation of the critical level of prices, the critical variable and fixed costs

The graphs and analytical calculations show that the break-even volume of services and the safety zone depend on the amount of fixed and variable costs, and the level of prices for services. When prices rise, to get the necessary amount of revenue to compensate for the fixed costs of the branch office, you need to implement fewer services, and vice versa, the lower price level, the higher break-even sales volume becomes. Increase in specific variable and fixed costs increases the threshold of profitability and reduces the security zone. Therefore, every company strives to reduce fixed costs. The optimal plan, that allows to reduce the share of fixed costs per unit of production, reduces the break-even sales volume and increases the security zone.

For more in-depth research of parameters according to "cost - volume - profit" there is a need to answer the following questions:

- to what extent is it possible to reduce revenues (sales) and price sales in order to maintain the profitability of activity, i.e. what are the critical revenue (sales volume) and critical sales price?

- what are the critical level of specific variable and critical levels of total fixed costs?

These issues are dealt with formulas, basing on which, in particular, the following indicators are calculated and analyzed.

- critical to the price of the services;
- critical revenue;
- critical variable costs;
- a critical level of fixed costs

Now we calculate the critical price of the services for each type of service

providing that the Andizhan branch keeps the volume of services in natural terms (table 12)

The calculation will conduct the following formula:

$$p_c = (C_{fix} / V) + C_{var}. \quad (25)$$

Table 12.

Calculation of the minimal prices for the services of the Andizhan branch of "Uzbektelecom"²⁰

№	Types of services	Volume of services, units	Fixed cost, thous. soum	Variable costs per unit of service, soum	The critical price, sum.
1	Telegraph	56 403, 8	796411,4	24,1	38,2
2	International TC	5 069, 3	1634739,2	367,8	690,2
3	Intercity TC	10 292,3	880244,19	89,2	174,7
4	Local TC	101 400	251498,34	5,06	7,5
5	Internet	90 823, 68	628745,85	6,04	13

Let's calculate the deviation of the actual price of services branch from critical, which is necessary to achieve the break –even volume rendered services (table 13, fig.7).

Table 13.

Deviations of actual prices of services of the Andizhan branch of "Uzbektelecom" from critical²¹

Types of services	The actual price, soum.	The minimum price, soum.	Absolute deviation of +/-, soum.	Relative deviation, %
Telegraph	36,9	38,2	-1,3	-3,5
International TC	849,5	690,2	159,3	18,8
Intercity TC	222,3	174,7	47,6	21,4
Local TC	6,5	7,5	-1	-15,4
Internet	17,6	13	4,6	26,1

²⁰ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

²¹ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

As it is seen from the data, negative deviation of the actual price from critical are such services as local TC (-15,4 %) and the Telegraph (for 3,5%), sales Revenue that the implementation of these types of services at actual prices are not sufficient to cover their costs. The greatest deviation of the actual price from critical has the Internet access services (26,1%).

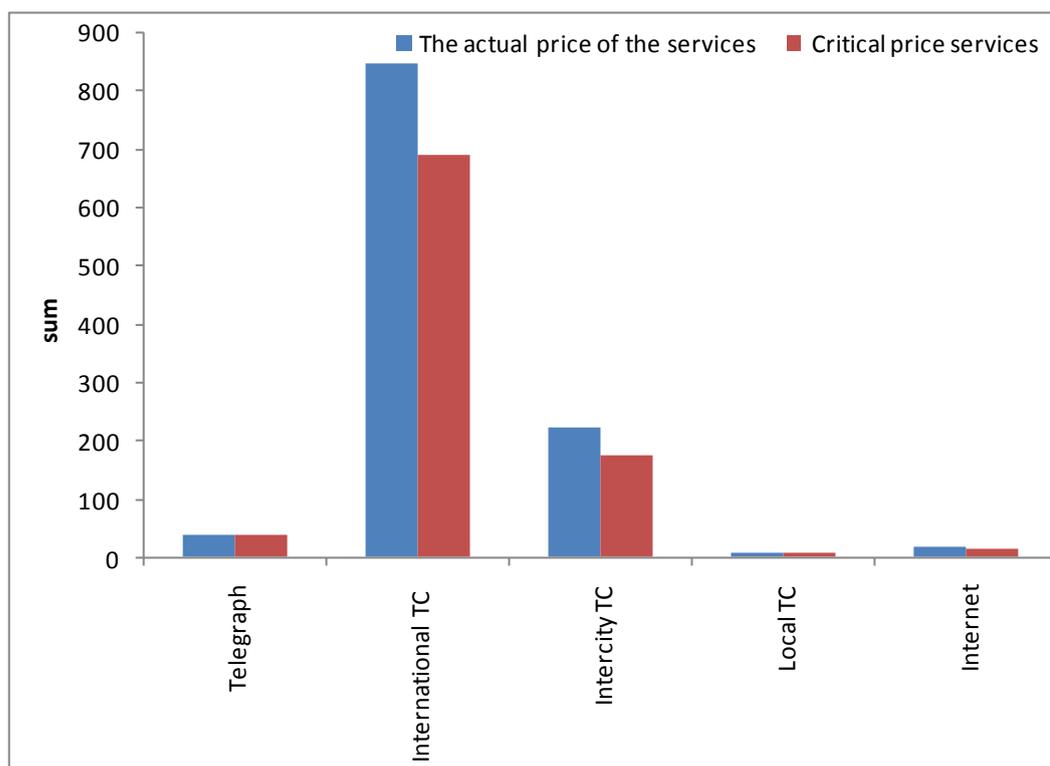


Fig. 7. Comparison of actual and critical of prices on services of the Andijan branch of "Uzbektelecom"²²

Using break-even analysis of critical level not only sales volume, rates can be set, but also the amount of fixed costs for a given value of other factors.

Calculate the critical level of fixed costs for each type of service according to the formula (table 14):

$$C_{fix.c} = V \cdot (p - C_{var}) \quad (26)$$

²² according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

Table 14.

Calculation of deviations of actual fixed costs for services from their critical level²³

Types of services	Variable costs per unit of service, sum	The actual price, sum.	Volume of services, units	Critical level of fixed costs	The actual fixed costs, thous. sum	Absolute deviation of +/-, thousand sum.
Telegraph	24,1	36,9	56 403, 8	721968,64	796411,4	74442,76
International TC	367,8	849,5	5 069, 3	2441881,81	1634739,2	-807142,61
Intercity TC	89,2	222,3	10 292,3	1369905,13	880244,19	-489660,94
Local TC	5,06	6,5	101 400	146016	251498,34	105482,34
Internet	6,04	17,6	90 823, 68	1049921,74	628745,85	-421175,89

The essence of this calculation is to determine the maximum value of fixed costs that can be covered by marginal revenue for a given volume of sales, prices and level of variable costs per unit of service. If fixed costs exceed this level, the branch will be unprofitable, it will not be covered by its revenues. The level of fixed costs branch exceeds on two types of services: Telegraph and local TA, these two types of services for branch are unprofitable. Therefore the branch must seek reserves to reduce fixed costs for this type of services. Figure 8 shows the graph of the ratio of the actual fixed costs by types of services branch and the critical level of fixed costs.

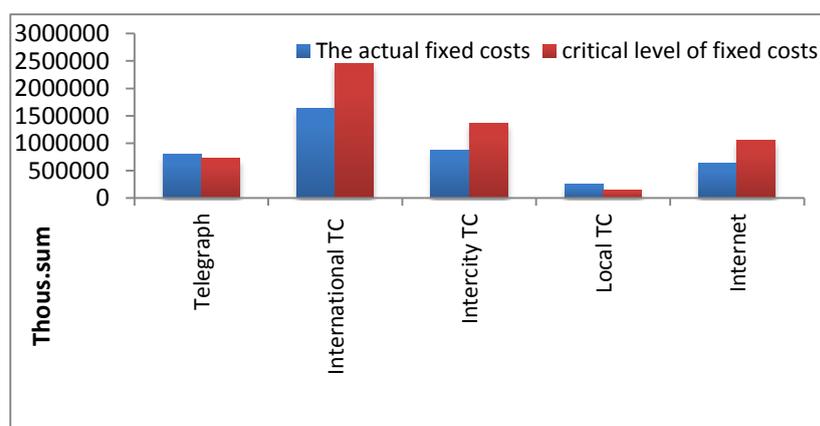


Fig.8. Comparison of actual and critical fixed cost of the Andijan branch of "Uzbektelecom"²⁴

²³ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

²⁴ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

The critical level of fixed costs is a valuable indicator in management, you can use it to better manage the process of formation of financial results.

The critical level of variable costs (Cvar.c) reflects maliciously variable costs, which still break-even status(table 15). It is determined by the formula:

$$Cvar.c = p - (C_{fix} / V) \quad (27)$$

Table 15.

Calculation of deviations of actual variable costs for services from their critical level²⁵

Types of services	Variable costs per unit of service, sum.	The actual price, sum.	Volume of services, units	The actual fixed costs, thous. sum	Critical level of variable costs, sum	Absolute deviation of +/-, sum.
Telegraph	24,1	36,9	56 403, 8	796411,4	22,78	1,32
International TC	367,8	849,5	5 069, 3	1634739,2	527,02	-159,22
Intercity TC	89,2	222,3	10 292,3	880244,19	136,78	-47,58
Local TC	5,06	6,5	101 400	251498,34	4,02	1,04
Internet	6,04	17,6	90 823, 68	628745,85	10,68	-4,64

Based on the data, the level of variable costs per unit of service branch exceeds on two types of services: Telegraph and local TA, these two types of services for branch are unprofitable. Therefore, the branch must seek reserves to reduce the variables for this type of services.

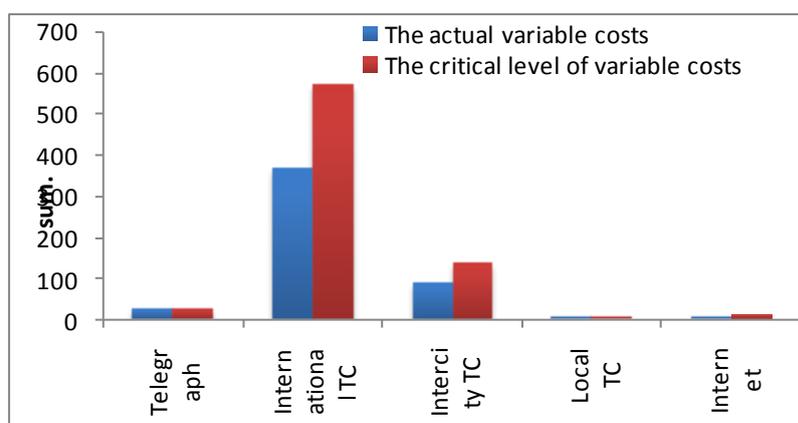


Fig.9. Comparison of actual and critical variable cost of the Andijan branch of "Uzbektelecom"

²⁵ *according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

Figure 9 presents the chart ratio of actual variable costs per unit of services and a critical level of variable costs.

Thus, proper consideration of all the factors and conditions allowing a break - even activity, gives an opportunity to make an informed revenue planning and financial result from sale of services and avoid (or at least minimize) loss on sales.

Break-even analysis in management accounting is used also for prediction of the range of services provided

We use the method of break-even analysis for making decisions of the Andizhan branch of "Uzbektelecom" about the range of services provided (table 16).

Table 16.

Summary calculation of cost of services of the Andizhan branch of "Uzbektelecom" for 2013²⁶

Types of services	The volume of services th,u	Varianle costs		Fixed costs		Full cost		Revenues from sales, thous. soum	Profit	
		total, thous. soum	per service, soum.	total, thous. soum	per service, soum.	total, thous. soum	per service, soum		total, thous. soum	per service, sumo
Telegraph	56 403, 8	1 359 592 ,6	24	796411,4	14,1	2156004	38,1	2 079 200, 5	-1,2	- 76803,5
International TC	5 069, 3	1 864 564,2	367,8	1634739,2	322,4	3499303,4	690, 2	4 306 322, 6	159,3	807019, 2
Intercity TC	10 292,3	917 890,6	89,2	880244,19	85,5	1798134,7	174, 7	2 287 5 17	47,6	489382, 21
Local TC	101 400	512 670	5,06	251498,34	2,5	764168,34	7,56	659 100	-1,06	- 105068, 34
Internet	90 823, 68	548 874,2	6	628745,85	6,9	1177620,0	12,9	1 599 549,5	4,7	421928, 95
Total	x	5 303 591,6	x	4 191 639	x	9495230,6	x	10 931 690,3	x	153645 9,7

As it can be seen from table 15, services such as Telegraph and local TA , are not profitable affiliate, per unit of implementation of these types of services are

²⁶ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

loss (-1,2 and 1.06 soum respectively). But the branch may not refuse these services, so you need to increase the provision of data services to at least break-even point. The profit per unit of this type of services of Internet has a minimum value of 4.7 soum . However, before making the decision whether to keep any service in the range or to refuse to provide it, it is necessary to calculate the profit of the Andizhan branch of "Uzbektelecom" from realization of all provided services. For profit, it is important that the amount of revenue exceeds the sum of the variable costs.

In 2013, the total revenue from the sale of all services branch was 10 931 690,3 thousand soums ,total costs of the enterprise -9495230,6 thousand soum., and the profit of the enterprise from realization of all services amounted 1536459,7 thous. soum.

Since the branch has in its range two services, which is unprofitable, let's see what happens to the profits of the enterprise, if you refuse to provide these services.

In case of refusal of service "Telegraph" revenue branch will be reduced by the amount of revenue from the sale of this type of service and will be 8852489,8 thousand soum:

$$10\,931\,690,3 \text{ thousand soum} - 2\,079\,200,5 \text{ thous. sum.} = 8852489,8 \\ \text{thousand soum}$$

It also reduces the cost of the enterprise in the amount of variable costs required to provide such services on the value 1359 592,6 thousand soum. Due to the fact that the fixed costs do not depend on the volume of revenues, the rejection of production facilities "Telegraph" will not affect their value.

The cost of a branch without telegraphic communication services will be 8135638 thousand soum: 9495230,6 thousand soum - 1 359 592 ,this sum = 8135638 thousand soum.

In this case the profit of the branch will be 716851,8 thousand soum:

$$8852489,8 \text{ thousand soum} - 8135638 \text{ thousand soum} = 716851,8 \text{ thousand} \\ \text{soum}$$

Total losses from the reduction of the range of services will be equal 819607,9 thousand soum (1536459,7 thousand soum - 716851,8 thousand soum), bearing in mind that 819607,9 thousand soum for branch is direct lost profit.

In case of refusal of Local services TS revenue branch will be 8852489,8 thousand soum: 10 931 690,3 thousand soum - 659100 thous. sum. = 10272590,3 thousand soum

It also reduces the cost of the enterprise in the amount of variable costs required to provide such services on the value 512 670 thousand soum. Due to the fact that the fixed costs do not depend on the volume of revenues, the rejection of production facilities "Telegraph" will not affect their value.

The cost of the branch without telegraphic communication services will be 8982560,6 thousand soum: 9495230,6 thousand soum - 512 is sum = 8982560,6 thousand soum.

In this case the profit of the branch will be 1290029,7 thousand soum:

$$10272590,3 \text{ thousand soum} - 8982560,6 \text{ thousand soum} = 1290029,7 \text{ thousand soum}$$

Total losses from the reduction of the range of services will be equal 246430 thousand soum (1536459,7 thousand soum - 1290029,7 thousand soum), bearing in mind that 246430 thousand soum for branch is direct lost profit.

Thus, having information about the total costs and profits per unit of service, you can make the wrong decision, to reject the low efficient services and to lose profit. The use of the method of management accounting cost reduced cost. "Direct - costing" will allow the branch to avoid such errors.

In addition, all services of the branch of the value of the marginal income is positive. If you refuse to produce one unit of service "Telegraph", branch loses 12,9 sum of the marginal income. Refusal to produce 722 units of services will lead to losses in the amount of 93138 soums (12,9 sum. x 722 units). From here we can conclude that the service "Telegraph" must be saved in the range of services branch.

If we abandon the production of one unit of services "Local TC" , branch

loses 1,44 sum of the marginal income. Therefore, though at the moment the services of Telegraph and local communication are unprofitable, the affiliate may not be refused because of direct lost profit.

To maximize profit and reduce the break-even point of the branch is possible, concentrating on the sale of the services with the highest price factors.

The size of the coefficient marginal revenue, calculated in percentage to the price of services is an important indicator of the operational analysis.

It shows the share of the absolute value rates, which increases the profits of the company or reduces its losses (table 17 and figure 10).

Table 17

The coefficient of marginal revenue by service type of the Andizhan branch of "Uzbektelecom"²⁷

Types of services	The profit margin per service, soum	Price per service, soum	The coefficient of marginal revenue
Telegraph	12,8	36,9	0,347
International TC	481,7	849,5	0,567
Intercity TC	133,1	222,3	0,599
Local TC	1,4	6,5	0,215
Internet	11,6	17,6	0,659

The higher price ratio is, the more profit this kind of production brings, the smaller the volume of sales is required for profit. As it can be seen from the given data, the maximum price factor has such type of services as Internet is 0.659, minimum has local TC - 0,215.

²⁷according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

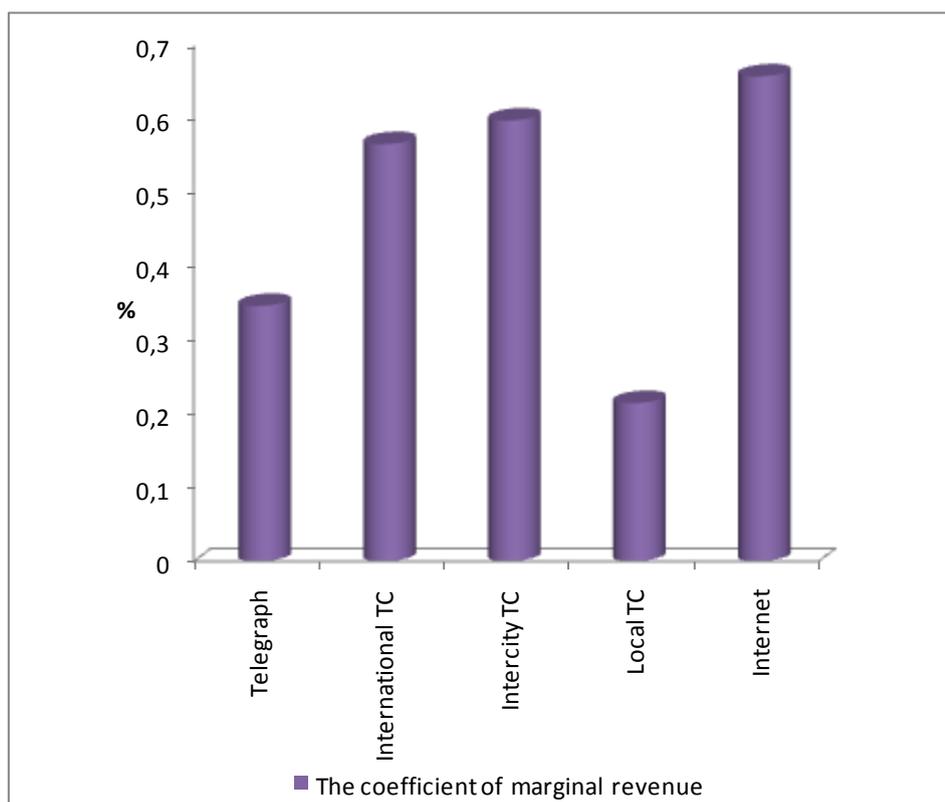


Fig. 10. Graphic interpretation of the coefficients of marginal revenue by service type of the Andizhan branch of "Uzbektelecom"²⁸

According to the results above, we can conclude that the division of costs into fixed and variable will allow the Andizhan branch of "Uzbektelecom" is more correct to analyze different options of management solutions to find better and more accurate results. The implementation of this technique in practice of the studied branch will contribute to the better management of process of formation expenses and financial results.

3.2. The ways of improvement of a financial condition of the Andizhan branch

To increase profitability of the enterprise there are 3 ways - reducing costs, boosting demand, the price increase.

For many of the services described above, the price increase is impractical

²⁸ according to the financial statements of the Andizhan branch of "Uzbektelecom" for 2013

because it would entail a drop in demand and, consequently, the fall in revenue and a further decline in profits. Stimulating demand for some services, such as local calls and services Telegraph, it makes no sense, as the target market is saturated. Cost reduction may be carried out only on a small scale, mainly due to greater automation of production and reduction of personnel.

In respect of loss-making local services TC and Telegraph communication services the following decisions can be made to reduce costs:

1. Optimization of technological processes.
2. Reduction of expenses on salaries.
3. Cost reduction at the household expenses.
4. Reducing the cost of advertising.

Another solution is to stimulate demand for the services. In this situation the decision is the modernization of the networks and the development of additional, up-to-date services on the basis of fixed-line services. Today there is a tendency of gradual reduction of the fixed-line market due to the mass distribution of Internet services. Demand growth of fixed-line services is primarily due to modernization of networks. The work on digitalization of communication lines continues, building new and upgrading the existing lines. Construction of fiber-optic communication lines equipped promising technology that increases data throughput and provides consumers with high -quality services.

In recent years, there has been widely discussed and has already found a real embodiment of the concept of NGN - Next Generation Network (next generation network), the basic idea of which is to build a unified transport infrastructure carrier networks based on packet principles that can transmit with the appropriate quality of the traffic of different types - voice, video, data, etc. In Fig.11 shows the graph of the dependence of the scope of services from time parameters of data transmission networks in comparison with the services of traditional telephony.

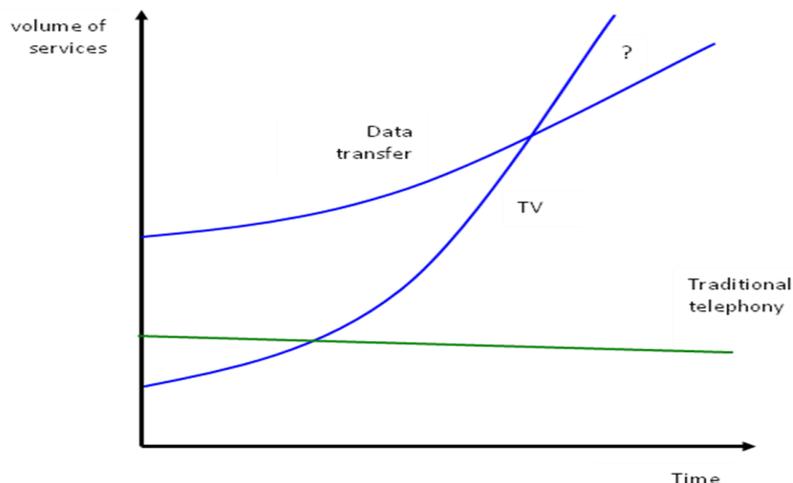


Fig.11. World tendency of the volume of services²⁹

For today the volume of voice traffic does not contribute proportional increase of income, and, of course, does not bring so much profitability of services of data transmission network, which dominate the world market of telecommunications. Almost all of the cost models allow to optimize expenses on traditional telephony, as the volume of data transmission restart NGN below and less dependent on traffic volume

Figure 12 presents a graph of the cost of the volume of rendered services for traditional telephony and NGN services.

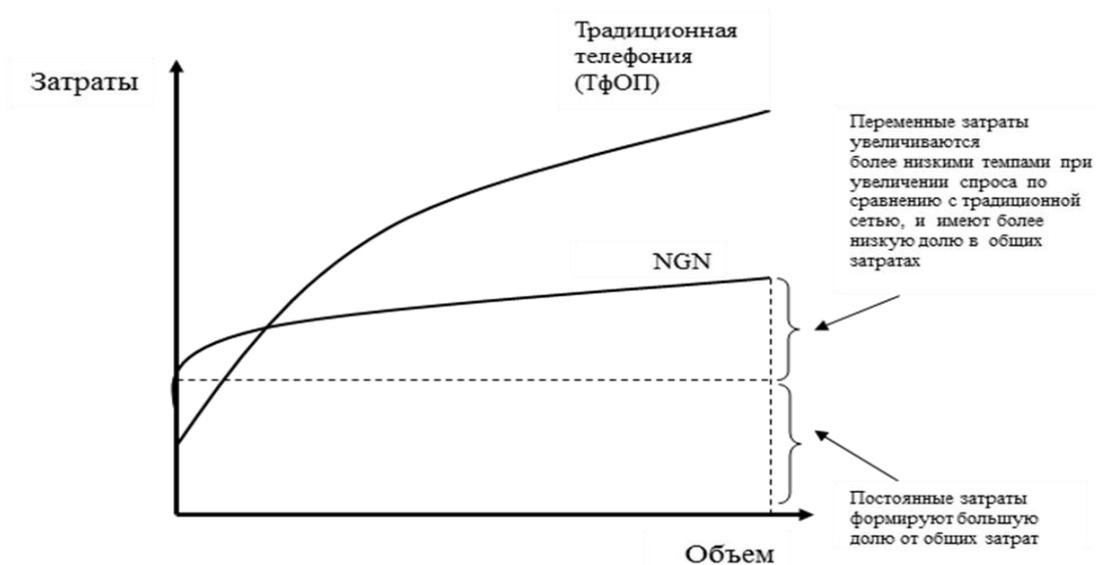


Fig.12. Graph of the cost-volume³⁰

²⁹ Сети следующего поколения NGN / Под ред. А.В. Рослякова. – М: Эко-Трендз, 2008. – 424 с.

³⁰ Сети следующего поколения NGN / Под ред. А.В. Рослякова. – М: Эко-Трендз, 2008. – 435 с.

Thus, the gradual introduction of new generation networks in our country will allow increasing profits from traditional fixed-line communications, as it is applied to services NGN variable costs increased at a lower rate, and have a lower share in total costs than in the services of traditional telephony, and this will enable to more effectively manage the cost-volume-profit, as a large share in the total services costs NGN are fixed costs, the reduction potential are easier to find.

Another option development and increase of demand for fixed services is the overlap of mobile and fixed networks. It will allow providing more attractive services for the end user, and will bring big revenues of Telecom operators. Head-owned utility value of the mobile connection is availability of connection. The main value of fixed communication is its quality. On the basis of fixed communication new services should be developed using a large consumer demand for such services may include call forwarding, sending SMS, conferencing, call waiting, call holding and several others. Package deals that include digital telephone services, Internet access, television are more and more attractive for subscribers.

Voice over IP networks, IP -telephony, or VoIP are concerned as additional services. In addition, fixed-line operators provide corporate clients with services of video surveillance, digital television, hosting, lease of applications, etc. All of this can be attributed to the services, bringing additional income is VAS (Value Added Services).

Obviously, the more the operator has new additional services, the more attractive it is for customers.

Successful experience of introduction of new services have such operators as FastWeb (Italy), Yahoo! CENTURIES CableTV (Softbank, Japan), SpanishTelefonica, FranceTelecom, TelekomAustria. The profitability of these companies in recent years has increased several times, due to introduction of new revenue-generating services.

Modernization of existing communication networks, new broadband and entertainment services based on fixed-line services, are sources of increased

demand for traditional services, and consequently to improve the financial status of the enterprises of the industry of telecommunications.

Thus, to maximize profits and reduce the break-even point of the branch is possible, concentrating on the sale of the services with the highest price factors, and also a complex of measures reducing the breakeven point should cover the following areas:

-increase of profitability of sales of services by improving the quality of services and find resources reducing their costs, increase productivity, but also due to the faster pace of growth of volumes of services on the growth rates of all costs. All these measures should contribute to the efficiency of use of financial reserves of the branch.

-improvement of the accounting system and the introduction of personal responsibility for spending of resources;

-saving production costs, first of all, on articles that have the largest share in the cost structure;

-marketing research and extension segment of consumers by expanding the range of services offered;

-the need to constantly improve the technical level and production skills of employees of the branch for the effective implementation of scientific and technical progress;

Implementation of the above proposals in the activities of the branch will allow to reduce the break -even level in the Andizhan branch of "Uzbektelecom".

4. SAFETY OF VITAL ACTIVITY

4.1. The workplace organization

Comfortable operator's work influenced the organisation of a workplace of the operator, means of information display, controls the machine. They should be as convenient as possible for a person to prevent disturbance and discomfort in the process of work, and contribute the least fatigue. The only way to ensure conditions of comfort computer operator is the organization of his work place. In this issue there are no trifles, as any, at first sight insignificant factor in the process of prolonged exposure may cause discomfort, have a negative impact on results of operations and may cause disease. At long work of the operator of the monitor screen operators noted voltage visual apparatus with the advent of complaints dissatisfaction with work, headaches, irritability, sleep disturbance, fatigue and pain in the eyes, waist, arms and neck. Operator workplace is organized in accordance with requirements of standards and technical conditions for work safety.

Under the mutual arrangement of elements of the workplace taken into account:

- working position of the operator.
- space for placing of the operator, allowing to carry out all the necessary movements;
- physical, visual and auditory communication between the operator and the equipment;
- possibility of review of space outside the workplace;
- ability to record keeping, documentation and materials used by the operator.



Fig.13. The recommended position while working at the computer³¹

- the chair-the chair should have the possibility of individual adjustment,
- distance to the screen is 60-70 cm,
- the user must look at the screen from top to bottom at an angle of 10 degrees from the horizontal line
- footrest.

When the equipment of a workplace (F.13) you must install the monitor on a special table so that the rear panel facing the wall (so how about it registered the maximum level of electric field intensity), the screen must not be placed in front of a window or other direct sources of light, giving glare on the screen. The table on which you are installing the monitor must be of sufficient length to the distance to the screen was 60-70 (no closer than 50) cm, and at the same time, you can work with the keyboard in the immediate vicinity of the user (30-40 cm). Design furniture (tables, chairs, chairs) should provide for the possibility of individual adjustment growth and working to create a comfortable position. Frequently used items of work should be in optimum working area, at the same distance from the eyes of the workers. On the surface of the desktop you want to place the stand documents, the distance from the eyes should be the same as the distance from the eyes to the keyboard. Office chair should have armrests. In the workplace it is necessary to provide a footrest.

In order to eliminate glare on the screen, the monitor must be installed perpendicular to the table, and the user needs to look at the screen for a few top-down (10 degrees from the horizontal line). The lighting conditions in the room play an important role in the preservation of visual comfort. On the one hand, nothing should interfere with the perception of information from the screen, on the other, the user must see the keyboard, paper texts, which has to be used, and also the General conditions and the people with whom we communicate at work.

³¹ Русак О.Н., Малаян К.Р., Занько Н.Г. Безопасность жизнедеятельности: Учебное пособие /Под ред. О.Н. Русака. – 3-е испр. и доп. изд. – СПб.: Лань, 2008.

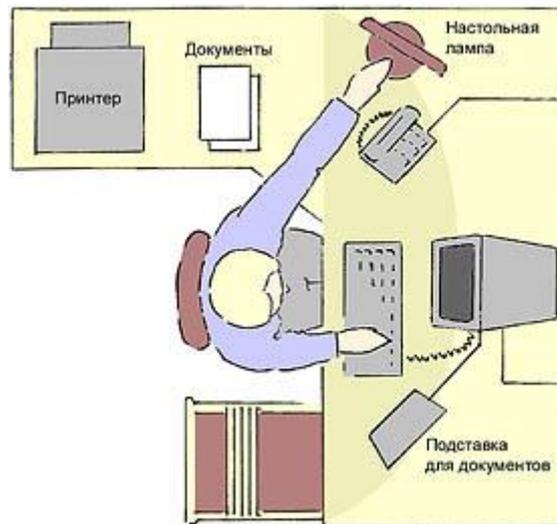
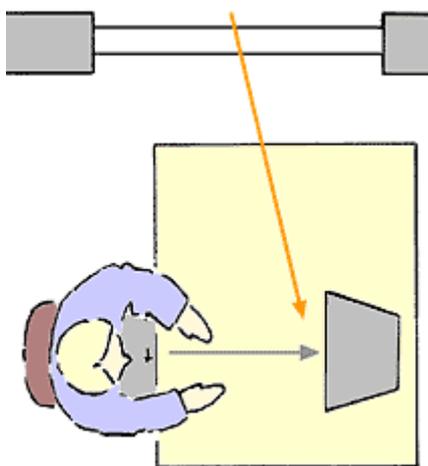


Fig. 14. Comfortable work space with an "L-shaped" Desk³²

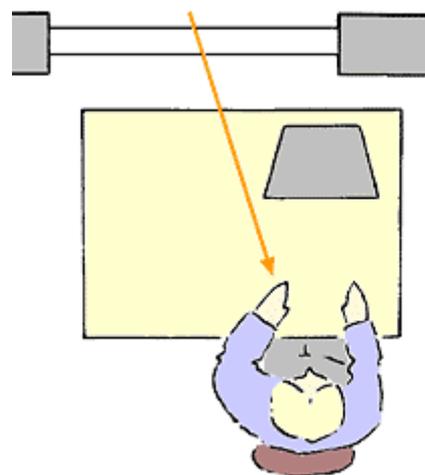
General lighting in the room should not be too big and not too small, it should be in the range of 300-500 Lux. If the room is bright, that window should have curtains or blinds. Workstations displays should not be placed directly from Windows. In all cases, the monitor should be oriented so that he was not given a glare, namely at an angle to the window, close to the direct .Artificial lighting should not be too bright. But in addition to General lamps, illuminating the room needed local bright (not less than 60 W) lamp with good dense shade covering only the text, with which the user works. She must have the possibility of orientation in different directions and to be fitted with a device to adjust the brightness. Incandescent preferred fluorescent since the latter give pulsed light, in certain conditions, amplifying screen flickering of the display.

³² Безопасность жизнедеятельности: Учебник для вузов/Под общ. Ред. СВ. Белова.-3-е изд. испр. и доп.-М: Высш. Школа, 2008.- 484 с.,



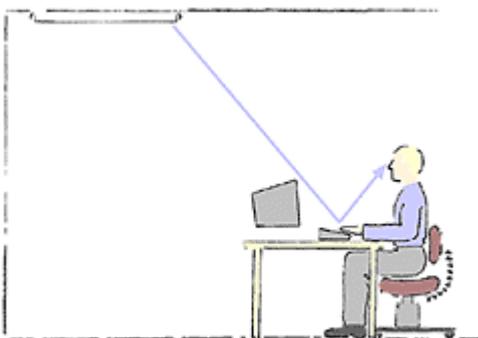
Recommended

Fig. 15. Line of sight is parallel to the window³³



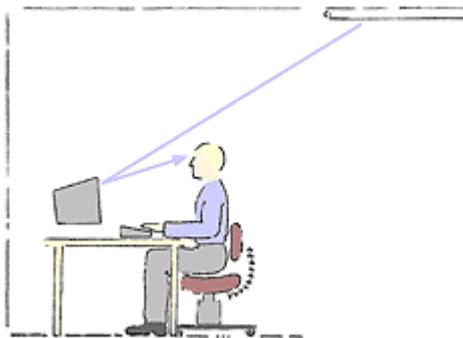
Not recommended

Fig. 16. Bright light in sight³⁴



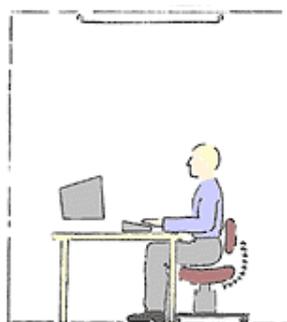
Not recommended

Fig. 17. The reflection of light from the surface from the lamp on the monitor screen³⁵
keypad³⁶



Not recommended

Fig. 18. The glare of the light of the table and the



⁸⁻¹²Белов, С. В. Безопасность жизнедеятельности: учеб. для вузов [Текст] / С. В. Белов, А. В. Ильницкая, А. Ф. КОЗЬЯКОВ и др.; под общ. ред. С. В. Белова. - Изд. 3-е, испр. и доп. - М.: Высш. шк., 2009.

Recommended

Fig. 19. The correct location of the monitor against a wall and light source³⁷

The principle should be clear: as little light should fall on the display screen. Before working with your monitor must be installed by using handles most comfortable contrast and brightness on the screen. They are selected individually, as too low contrast ratio and high brightness can lead to rapid exhaustion. In the selection of the light conditions at the workplace in the display, you must consider the fact that people after 40 years of age-related changes occur in the visual system (narrowing of a pupil, yellowing of the lens, the reduction of visual activity and contrast sensitivity of the retina). All this requires strengthening the screen brightness and additional illumination of a workplace (paper text). Presbyopic glasses for users displays should be somewhat weaker than reading glasses. Because they need to see clearly and screen (60-70 cm from the eye), and text (30-35 cm from the eye). If accommodation is completely absent, which usually happens after 60 years, it is sometimes advisable to correct one's eyes to the screen, and the second is to work at a distance. Young persons under visually-intense work, the greatest burden is accommodative system of the eye that while work is in constant tension. This can lead to astenopiceski phenomena, disorders in accommodative system of the eye and, ultimately, to the emergence and growth of myopia. To avoid this, working with the screen of the monitor must be conducted from a distance of not less than 60-70 cm, with accommodation stress is minimal. In adults with myopia, which are constantly wear glasses, other glasses for computer only required if my glasses user with difficulty reading newspaper font from a distance of 60-70 cm (to the screen) and 30-33 cm (up to printed text) from the eye. If the same lenses reading with both distances impossible, appoint bifocals.

4.2. Optimal parameters of the microclimate.

The microclimate parameters are divided into optimal and acceptable. Optimal parameters of the microclimate is this combination of temperature(t), relative humidity(n) and air velocity(V), which is prolonged and systematic influence does not cause deviations in the condition of the person.

$$t = 22 - 24 \text{ }^{\circ}\text{C}$$

$$n = 40 - 60 \%$$

$$V = 0,2 \text{ m/s}$$

Valid parameters of the microclimate is this combination of parameters of microclimate that prolonged exposure causes coming and quickly normalizing change in working condition.

$$t = 22 - 27 \text{ }^{\circ}\text{C}$$

$$n = 75 \%$$

$$V = 0,2-0,5 \text{ m/s}$$

The working area is the space above the horizontal surface, where the work is performed should have a height of not less than 2 meters.

Ventilation system

Ventilation - organized circulation, which ensures removal of air pollution from excess heat and harmful substances and thereby normalize the air in the room.

The efficiency of the ventilation system is determined by the multiplicity of air (To).

To determine the amount of air removed from the premises it is necessary to know:

V1 - air volume with regard to thermal stresses.

V2 - air volume with regard to the emissions of those or other processes.

Classification of systems of ventilation

1. On the principle of organization of air
2. By way air supply
 - 2.1. Natural (the difference in pressure inside and outside of the building; airing) - wind power; - the thermal head
 - 2.2. Mechanical - supply; handling; - supply-and-exhaust (General, local, mixed,

alarm, air-conditioning system)

2.3. Mixed - natural + mechanical

3. On the principle of organization of air

3.1. General

3.2. Local

Inlet ventilation

1. The device of the fence

2. Cleaners

3. The system of air ducts

4. Fan

5. The drawer in the workplace

Exhaust ventilation system

1. Device for removal of air

2. Fan

3. The system of air ducts

4. Dust - and gazoudalenija devices

5. Filters

6. The device for the discharge of air

Mechanical ventilation systems should provide a valid parameters of microclimate on rabmesto in production premises.

Optimal parameters of microclimate ensures air-conditioning system.

The control parameters of the air environment

By using devices:

- Thermometer (temperature);
- Psychrometer (relative humidity);
- Anemometer (speed of air movement);
- Actinometer (the intensity of thermal radiation);
- Gas analyzer (concentration of harmful substances).

Illumination

Basic concepts characterizing the light, are luminous flux, power, light,

lighting and brightness. Luminous flux is called the flow of radiant energy, estimated eye on light feeling. Good lighting tonic effect, creates good mood, increases the flow of the main processes of the higher nervous activity. Improvement of lighting improves performance, even in those cases when the labor process practically does not depend on visual perception. 90% of the information people receive through the organs of vision. Light has a positive influence on metabolism, cardiovascular system, nervous-mental sphere. Rational lighting helps to increase labor productivity, its security. When lighting is poor and bad quality is the rapid exhaustion of the visual analyzer, increases the likelihood of injury. Too high brightness causes blindness, impaired function of the eye.

Quantitative characteristics of light:

Luminous flux - Φ_v (lumens). The flow of radiant energy, as measured by visual sense, characterizes the power of light radiation, based on visual perception. Power light - P_v , CD (Candela). As luminous flux is distributed unevenly in space, the concept of the forces of light. J_v - spatial density of luminous flux; there is the solid angle. Illumination - E_v , LX (Lux). The surface density of luminous flux. In the development of optimal working conditions programmer needed to take account of the illumination of a workplace. Rational lighting of the workplace is one of the most important factors influencing the effectiveness of employment rights, warning accidents and diseases. Correctly organized lighting creates favourable conditions of work, increases efficiency and productivity. The lighting in the workplace programmer must be such that the employee could stress of view to do its job. Fatigue bodies of view depends on a number of reasons:

- lack of illumination;
- excessive illumination;
- wrong direction of the light.

Failure lighting causes eye strain, weakens attention, leads to the premature onset of fatigue. Overly bright light causes glare, irritation, and pain in the eyes.

Wrong direction of the light in the workplace can create harsh shadows, reflections, to disorient the workers. All these can cause accidents or occupational diseases, so important for the correct calculation of illumination.

For lighting of premises, where the operator is used mixed illumination, i.e. a combination of natural and artificial light. Natural illumination is carried out through the Windows in the outer walls of the building.

Artificial lighting is used when insufficient natural lighting and by using two systems: General and local lighting. General called lighting, lamps, lighting up the entire premises. Locals call the lighting, designed for a specific workplace. To the room where the operator's workstation, the system is used for General lighting.

The standards for these works have the required illumination of workplaces $E_{\text{norm}}=300$ Lux (for works of high accuracy, when the smallest feature size of discernment equal to 0.3 - 0.5 mm). The calculation of the lighting system is the method of utilization ratio of the luminous flux, which is expressed by the ratio of the luminous flux falling on the design surface, to the total flux of all lamps. Its value depends on the characteristics of the lamp, the room size, colour of the walls and ceiling, characterized by the reflection coefficient of walls and ceiling. The most acceptable for the premises of the EC are fluorescent lamps LB (white light) or UL (warm white light), with a capacity of 20, 40 and 80 watts. To avoid exposure of the screen displays the direct light flows lamps for General lighting feature on the side of working space, parallel to the line of view of the operator and the wall with Windows. This placement of fixtures allows to produce their series connection depending on the size of natural lighting and eliminates irritation of the eyes alternating bands of light and shadow that occur when the transverse location of lighting. Calculation of local light stream is not possible, as in this case, it is recommended that the General lighting system in order to avoid reflected blastcasta from table surface and the monitor screen.

CONCLUSION

To calculate the break-even point of the Andizhan branch of "Uzbektelecom" all three methods of break-even analysis a graphical method of the equations and marginal revenue were used.

During the research work it was found out that the graphical way of break-even analysis of production in conditions of the Andizhan branch of "Uzbektelecom" can be used sparingly, since the range of services of this branch is quite high. To accurately determine the break-even point for each service and for the whole company the method of the equations was used. In the calculations, it turned out that the break-even volume of production for the Andizhan branch of "Uzbektelecom" in monetary terms is 8741498,73 thous. sum.

To characterize the degree of remoteness of the enterprise from the point were calculated indicators such as the absolute deviation of actual volume of revenues from the break -even point and "safety Margin" for each type of service and in the whole branch. It was found that the Andizhan branch of "Uzbektelecom" has sufficient deviation of actual volume of revenues from sales of services to estimated break -even point, which is estimated positively.

The highest value of the stock of financial strength is typical for Internet service (40,2%), which is an indication that this type of services has more possibilities to maintain the designated level of profitability at reduction of proceeds from the sale. Therefore, we can say that Internet services are more resistant to changes in the market in terms of profits. Services of Telegraph and local TC do not possess good financial strength.

In the work the calculation of the minimum rates for each type of us -meadow branch was carried out. It has been found out that the negative deviation of the actual price from critical are such services as local TC (-15,4 %) and Telegraph (for 3,5%), sales Revenue that the implementation of these types of services at actual prices does not sufficient to cover their costs. Therefore, it is necessary to assess the feasibility of providing these services.

The greatest deviation of the actual price from critical has Internet access services(26,1%).

In the work there was the analysis of the marginal revenue from sales of services with the purpose of formation of the range of services branch, which shows that the Telegraph and local TC are not profitable affiliate, per unit of implementation of these types of services are loss (-1,2 and 1.06 soums respectively). But the branch may not refuse these services, so you need to increase the provision of data services to at least break-even point. The profit per unit of this type of services of Internet has a minimum value of 4.7 soum . However, before making the decision whether to keep any service in the range or to refuse to provide it, it is necessary to calculate the profit of the Andizhan branch of "Uzbektelecom" from the sale of all of the services it. For profit, it is important that the amount of revenue exceeded the sum of the variable costs. If you refuse to produce one unit of service "Telegraph", branch loses 12,9 sum of the marginal income. Refusal to produce 722 units of services will lead to losses in the amount of 93138 soum . From here we can conclude that the service "Telegraph" must be saved in the range of services branch.

If we abandon the production of one unit of services "Local TC" , branch loses 1,44 soum of the marginal income. Therefore, though at the moment the services of Telegraph and local communication are unprofitable, the affiliate may not refuse because of direct lost profit.

To maximize profit and reduce the break-even point of the branch is possible, concentrating on the sale of the services with the highest price factors, and also a complex of measures to reduce the breakeven point should cover the following areas:

-increase of profitability of sales of services by improving the quality of services and to find resources reduce their costs, increase productivity, but also due to the faster pace of growth of volumes of services on the growth rates of all costs All these measures should contribute to the efficiency of use of financial reserves of the branch.

-improvement of the accounting system and the introduction of personal responsibility for spending of resources;

-saving of production costs, first of all, on articles that have the largest share in the cost structure;

-marketing research and extension segment of consumers by expanding the range of services offered;

-the need to constantly improve the technical level and production skills of employees of the branch constantly for the effective implementation of scientific and technical progress.

Implementation of the above proposals in the activities of the branch will allow to reduce the break -even level in the Andizhan branch of "Uzbektelecom".

BIBLIOGRAPHY

1. The law of the Republic of Uzbekistan from 13.01.1992. № 512-XII "About communications".
2. The law of the Republic of Uzbekistan dated 11.12.2003 № 560-II " About Informatization".
3. The decree dated 30.05.2002 No. VII-3080 "On further development of computerization and introduction of information-communication technologies".
4. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 29.01.2009 № 26 "About additional measures on increase of competitive capacity of domestic goods".
5. The resolution of the Ministry of Finance of the Republic of Uzbekistan, State tax Committee of the Republic of Uzbekistan, Uzbek Agency for communication and information from 27.09.2011 №2268 "On approval of the Provision on the procedure of formation and distribution of revenues from telecommunication services and their representation in accounting, joint-stock company "Uzbektelecom"
6. The regulation on the formation and regulation of tariffs on telecommunication services. Registered by Ministry of justice of the Republic of Uzbekistan, 18.08.2000 №959.
7. National program of reconstruction and development of telecommunication network of the Republic of Uzbekistan for the period till 2010 gods changes in accordance with the resolution of the Cabinet of the Republic of Uzbekistan dated 23.09.2002, №328.
8. The regulations on the composition of expenses on production and

realization of products (works, services) and on the procedure of formation of financial results with changes and additions from 22.09.2013, № ПП-1675

9. Каримов И.А. «Прогресс страны и повышение уровня жизни нашего народа –конечная цель всех демократических реформ и преобразований». Т.: «Узбекистан», 2008.

10. Каримов И.А. «Мировой финансово-экономический кризис, пути и меры по его преодолению в условиях Узбекистана» Ташкент, 2009.

11. Каримов И.А. «Главная задача – дальнейшее развитие страны и повышение благосостояния народа» Ташкент-Узбекистан, 2010

12. Каримов И.А. «Узбекистан на пороге достижения независимости» Ташкент-Узбекистан, 2011

13. Шеремет А.Д. Управленческий учет. – М.: ИДФБК-ПРЕСС, 2008. – 510с

14. Вахрушина М.А. Управленческий анализ. – Омега – Л; 2008. 432 с.

15. Адамов Н.А. Особенности системы управленческого учета «директ-костинг» // Финансовая газета. Региональный выпуск. – 2008. - № 26. – С.26-27.

16. Алборов Р.А. Бухгалтерский управленческий учет (теория и практика). - М.: Дело и сервис, 2008. – 410с.

17. Палий, В. Ф. Управленческий учет издержек и доходов (с элементами финансового учета) / В. Ф. Палий. - Москва : ИНФРА-М, 2008. - 277

18. Каверина О. Д. Управленческий учет: системы, методы, процедуры. – М.: Финансы и статистика, 2008. – 352 с.

19. Бочкарев А.Н. Управлять затратами в условиях кризиса, стабильности и далекого будущего нужно по-разному // Эксперт. – 2009. - № 32. – С. 9-11.

20. Волкова О.Н. Управленческий учет. - М.: Проспект, 2009. – 390с.

21. Фролова М.Н. Управленческий учет и современный бизнес // Финансовая газета. – 2009. - № 10. – С.15-16.
22. Ерижев М.К. Сравнительный анализ основных подходов к управлению затратами современной компании // Финансовые и бухгалтерские консультации. – 2009. - № 10. – С.15-16.
23. Ермакова Н.А. Организация учета в системе «директ-костинг» // Современный бухучет. – 2010. - № 6. – С.20-22.
24. Жарикова Л.А. Белов В.Б. Управленческий учет. – Тамбов: ТГТУ, 2010. – 406с.
25. Карпова Т.П. Основы управленческого учёта. – М.: ИНФРА-М, 2010. – 360 с.
26. Лукьяненко В.М. Управленческий учет. - Новосибирск: НГАУ, 2011. – 240 с.
27. Чая В.Т. Перспективы развития управленческого учета // Экономический анализ: теория и практика. – 2012. - № 22. – С.16-17.
28. Сети следующего поколения NGN / Под ред. А.В. Рослякова. – М: Эко-Трендз, 2008. – 435 с.
29. Арустамов Э.А., Безопасность жизнедеятельности / Э.А. Арустамов. - М.: Изд.центр Акад., 2008.
30. Белов С.В., Безопасность жизнедеятельности: учеб. для вузов / Под общ. ред. Белова С.В. 2-е изд., испр. и доп./ С.В. Белов, А.Ф. Козьяков, Л.Л. Морозова, А.В. Ильницкая. – М.: Академия, 2008.
31. Микрюков В.Ю. Обеспечение безопасности жизнедеятельности, В 2 кн. Кн 1 Коллективная безопасность: учебное пособие / В.Ю. Микрюков. - М.: Высш. шк., 2009.
32. Безопасность жизнедеятельности: Учебник для вузов/Под общ. Ред. СВ. Белова.-3-е изд. испр. и доп.-М: Высш. Школа, 2008.- 484 с.,

- www.uztelecom.uz

- www.uzmobile.uz

- www.infocom.uz