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**DEVELOPMENT OF THE PROGRAM TO ATTRACT  
INVESTMENTS IN THE ICT SECTOR OF THE  
REPUBLIC OF UZBEKISTAN**

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and communication technologies

DISSERTATION

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## INTRODUCTION

Justification of the master dissertation theme and its relevance.

Any economic activity of economic entity in the conditions of market economy succeeds only at introduction new technologies. An application modern technology is caused by existence of financial resources. At an investment of free financial resources in operating, financial and investment activities, on the one hand, there is a problem of the invested capital efficiency, with another - a problem of the free financial resources identification, their accumulations. The solution of this problem is possible at careful studying of such questions as: what are investments, what role of investments in economic recovery of the state. Currently it is also in a question of investment into the information and communication technologies sector.

In the conditions of market economy receiving profit is driving motive of investment activity. This purpose is realized by production of concrete goods, rendering services which find recognition in the market, and without it investments will be useless.

Investment process in market economy is one of the most interesting and difficult objects of the research. It is badly predicted, especially in phases of crises. During any crisis investment are reduced most strongly as they are financed considerably by profit and loans and the direction on the future increase of the income is the serious commercial risk.

Investments are necessary for achievement of the following purposes:

- increases and expansions of a field of activity;
- prevention of excessive moral and physical wear of the fixed business assets;
- decrease in cost of production and product sales;
- increases in technological level of production on the basis of introduction of the new equipment and technology;
- accelerations of scientific technical progress, improvement of quality and ensuring competitiveness of domestic production;

- creations of a necessary source of raw materials;
- increases and improvements of the export structure;
- ensuring positive structural shifts in economy;
- acquisitions of securities and investment of capital in assets of other enterprises;
- balanced development of all national economy branches;
- solutions of social problems, including unemployment problems;
- redistributions of property between subjects of managing, etc.

Investment activity in the state is directed to revival of reproduction process at the expense of internal and external financings. Therefore the state heads for every possible attraction of the foreign capital for this attractive factors complex.

The President of the Republic of Uzbekistan has approved the Strategy of actions in five priority directions of the Republic of Uzbekistan development in 2017-2021, one of the directions is devoted to «development and liberalization of economy, directed to further strengthening of macroeconomic stability and preservation of high growth rates of economy, increase in her competitiveness, modernization and intensive development of agriculture, continuation of institutional and structural reforms on reduction of presence of the state in economy, further strengthening of the rights protection and a priority role of the private property, stimulation of the small and private business development, the complex and balanced social and economic development of regions, areas and cities, active attraction of foreign investments into branches of economy and regions of the country by improvement of investment climate». <sup>1</sup>

Owning a certain capital, everyone tries to increase it. For this purpose it is necessary to enclose favorably finance which will make profit subsequently. Today there are many options, one of which is investments into information and communication technologies.

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<sup>1</sup> Decree of the President of the Republic of Uzbekistan Mirziyoyev Sh.M. "On the Strategy of actions for the further development of the Republic of Uzbekistan", 2017

Thanks to the fact that every year modern technologies are used more often and their popularity only grows, those companies or certain investors who are engaged in deposits to this sphere shortly will be able to reach improbable growth in economy and will achieve prosperity. Any of countries of Western Europe, Japan, the USA, India, Korea can be an example of that.

As a result there are investments into ICT (information and communication technologies), labor productivity substantially increases, access to other, more effective markets opens and there has come the phase meaning long-term economic development.

Rapid and continuous development of information technologies promotes well-timed development of the most various business projects. In those organizations where activity has been successfully transformed, it became clear that unlike single investments, continuous injection of finance with increase of investments into such process as reorganization, several times more effectively. The problem of any complexity should be fixed even prior to its emergence, the main thing – in time to expect all possible nuances.

Investments into ICT projects are very carefully analyzed because each investment has to be followed by analytical indicators and forecasts of their further development. Anyway, but only one indicator is in rare instances used. As a rule, it isn't enough, it is also necessary to use at most three or more. Implementation of a financial campaign is also necessary that gives the chance to make calculation of how investments into ICT will pay off.

Already many years a special technique for an opportunity to estimate and measure ICT business is used as investments have the most different purposes:

- process of the project justification;
- the organization, and also comparison of advantages of several projects for the investments capable to compete in one of spheres. <sup>2</sup>

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<sup>2</sup> Investment analysis - Kolmykova TS - Study Guide, INFRA-M - 2009 (in Russian).

Object and subject of the research. Object of the research is the investment processes and subjects acting in the ICT market, the ICT market and investment activity of JSC «Uzbektelecom»; and subject of the research is methods and instruments of investments attraction, the investment analysis of the ICT market.

Purpose and tasks of the research. The purpose of the work consists in development of the program to attract investments in the information and communication technologies sphere of the Republic of Uzbekistan founded on modernization of investment processes.

Research tasks are:

- The analysis of the problem area connected with attraction of investments into the sphere of ICT;
- Studying of the main methods and instruments to attract investments;
- Identification of modern methods of the investment assessment in the sphere of ICT;
- Investment analysis of the ICT market condition and investment appeal of the sphere of ICT of the Republic of Uzbekistan on the example of JSC «Uzbektelecom»;
- Development of methods and means of the investment processes modernization in the sphere of ICT;
- Development and principles of implementation of the program to attract investments in the ICT sector of the Republic of Uzbekistan.

Main issues of the research and research hypothesis.

The obtained data and comparative characteristics of the analysis will help to develop the program to attract investments in the ICT sector for 5 years ahead.

The definition of literature on the research theme.

Researches of foreign scientists, such as F.Kotler, M. Meskon, P. Druker, G. Armstrong, B. Nicholson, F. Webster, U. Sharp, J. Bailey devoted to development of information society, investments management, problems of marketing and management are known.

Some aspects of investment appeal in the information and telecommunication sphere have been investigated in L. Reyman, A. Beloknov, M. Gorelik, E. Golubetskaya, E. Dyomina, N. Reznikova, M. Maksimtsev, M. Komarova, N. Guskova, M. Amaryan, A. Lokotkov, S. Chudinov's scientific works.

Modern sources on this issue were also studied. The works of such authors as John Moldin, Sarv Deaverdzh, Rajiv Kokhliit, Benjamin Graham, Kolmykova T.S., Asaul A.N., Karpov B.M., Mishin V.M., Streltsova E.D., Bogdanova A.S. and many others, were considered.

In scientific works of scientists of Uzbekistan, such as D. Gazibekov, N. Kuziyeva, N. Haydarov, Sh. Yuldashev, D. Rakhimova, A. Vakhabov, Sh. Hazhibakiyev, N. Muminov, U. Nadirkhanov questions of investment activity and management were taken up by them, in T. Iminov, L. Shibarshova, M. Makhkamova, A. Kadyrov, A. Aripov, M. Makhmudov, H. Mukhitdinov's scientific works questions of the organization and development of management of investment activity in the sphere of communication, informatization and telecommunication technologies were considered.

The characteristic of the used research methods. In the work for the tasks solution such methods as the investments assessment, the investment analysis, the trend analysis, the one-dimensional comparative analysis are used.

The theoretical and practical importance of the work is as follows:

- possibility of using of a new method of the investment projects assessment in the sphere of information and communication technologies;
- possibility of the investment portal creation for the sphere of information and communication technologies;
- program to attract investments in the of information and communication technologies sector and possibility of its further realization.
- materials of the master dissertation are used at improvement of training programs, textbooks and manuals on disciplines «The investment analysis», «The strategy of development of E-business», «Project management and development of IT business» at the Tashkent university of information technologies in the

specialty and direction «Economy and Management in the sphere of information and communication technologies».

- the research of the master dissertation is included in the project plan A-2-091 «Improvement of methods and instruments of state regulation of ICT development in the conditions of national economy modernization» (2015-2017).

Scientific novelty.

Scientific novelty is:

- 1) detection of the creation necessity of the investment portal and definition of its structure;

- 2) description of new methods of the investment assessment to the sphere of ICT;

- 3) offer of methods and means of investment processes modernization in the sphere of ICT;

- 4) development of the program to attract investments in the ICT sector of the Republic of Uzbekistan for 2017-2021 on the basis of the analysis of the ICT market.

Structure and volume of work. Dissertation work consists of introduction, three chapters with conclusions, the conclusion and the list of the used literature. There are 5 tables, 7 figures in the dissertation work. Total number of pages is 89.

# **CHAPTER 1. SCIENTIFIC-THEORETICAL BASES OF DEVELOPMENT OF THE PROGRAM TO ATTRACT INVESTMENTS IN THE ICT SECTOR**

## **1. The current state of problem area connected with investments attraction in the ICT sector**

Today it became obvious that a necessary condition of sustainable development of the Republic is high investment activity which is reached due to attraction and effective use of internal and external resources.

Further liberalization of economy, expansion of economic freedoms of economic entities and scales of a private property in all spheres of the national economy, strengthening of the international economic relations stimulate successful implementation of the works to attract and use foreign investments.

According to the report of Ministry of Economics of Uzbekistan, the volume of the mastered foreign investments in Uzbekistan in the first half of 2016 has grown by 17,2% to 1,76 billion dollars.<sup>3</sup>

The volume of the mastered foreign investments involved under guarantees of the government of Uzbekistan has made 590 million dollars (growth by 1,9 times), the volume of direct investments — 1,17 billion dollars (+1,5%). Within the state investment program implementation of 43 projects with a total cost of 1,9 billion dollars is complete.<sup>4</sup>

Experience shows that foreign investments, connecting with national natural production and a manpower, create high aggregate effect at introduction of progressive technologies, modern methods of management and the organization of production, more active drawing into economic circulation local, often earlier

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<sup>3</sup> The results of social and economic development of the Republic of Uzbekistan for 2016 published by the Ministry of Economics of RUZ, 2017.

<sup>4</sup> The results of social and economic development of the Republic of Uzbekistan for 2016 published by the Ministry of Economics of RUZ, 2017.

unused riches. Foreign investors not only make the investments in the national enterprises, reconstruct and technically reweave them, but also open access to the world markets of sale that improves adaptation of economic entities to the civilized market relations, helping to lift their production and financial and economic activity to the corresponding international standards. Therefore stimulation of foreign investments, increase in efficiency of their use cause their need to keep and improve favorable conditions and the preferential market in the republic.

The international experience rather convincingly shows that attraction and use of foreign investments promotes development of economy and serves as a powerful incentive of social and economic reforms.

The thought that investments are the economy engine providing its advance is an axiom of any economic theory. Each state shall make efforts for attraction first of all to the sphere of goods production of both domestic, and foreign investors. For this purpose a certain investment policy is developed and implemented, the appropriate investment climate is created. The economic reforms which sequentially are realized in independent Uzbekistan assume achievement of rational branch, reproduction and territorial proportions, development of integration processes, support of economic growth, etc. The solution of all set of the specified problems is tightly connected to carrying out the appropriate investment policy, formation of effective system of regulation and support of investment processes.

The concept "investments" is used both in wide, and in a narrow sense of this word. It is single-digit to determine its content and an entity very difficult. In different sections of economic science, and also in relation to different directions of practical activities the different sense, proceeding from features of the sphere and application objects invests in it.

Word-for-word in translation from Latin the word "invest" designates "to put".

The maintenance of the concept "investments" of the Law of the Republic of Uzbekistan "About investment activities" is defined as "the material and non-

material benefits and the rights for them put in objects of economic and other activity".<sup>5</sup>

Considering an entity of this category, it is necessary to mark that in the modern literature its identification very often meets the concept "capital investments". In these cases of investment are defined as investments of capital in reproduction of fixed assets, however it isn't absolutely correct as attachments become also in current assets, and in separate types of intangible assets, and in different financial instruments.

At the macroeconomic level understand a part of expenses, the means of production allocated for reproduction, a gain of housing stock, commodity inventories, etc., that is the part of gross domestic product which isn't consumed in the current period directed to a capital gain as investments.

On a macrolevel and in the theory of production under investments mean process of the organization of reproduction of the new capital, including means of production and intellectual potential.

In the theory of finance of investment communicate with acquisition of real or financial assets, that is in essence it is the modern expenses for the purpose of obtaining the income in the future. In other words, it is exchange of the determined today's cost on, perhaps, indefinite future cost. In economy in general investments are treated as process of accumulation of the capital. In the last determination as the main criterion future interests and the related risks are reflected.

In the Law "About Investment Activities" of investment are differentiated on object of assignment. Are respectively selected:<sup>6</sup>

- capital (in real assets);
- innovative (on development and development of new generation of the equipment and new technologies);

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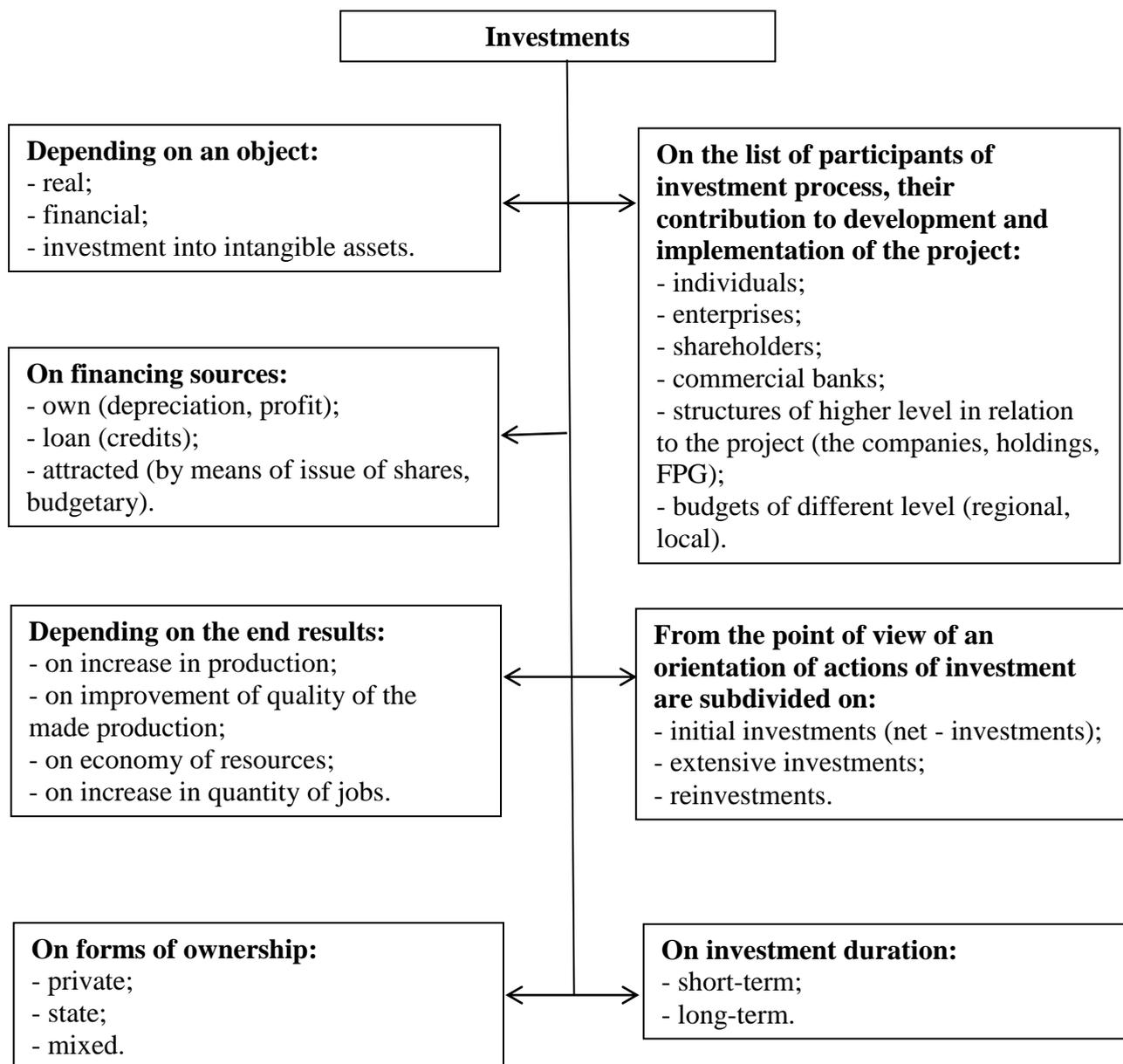
<sup>5</sup> The law to the Republic of Uzbekistan "About investment activity", on December 9, 2014 (new edition)

<sup>6</sup> The law to the Republic of Uzbekistan "About investment activity", on December 9, 2014 (new edition)

- social (in human development, skills, know-how, in other forms of the non-material benefits).

Investments can be classified by various signs (Fig. 1)<sup>7</sup>:

1. Depending on subject to investment it is accepted to distinguish the following types of investments: real; financial; investments into intangible assets.



**Fig. 1. Classification of types of investments\***

\* Made by the author

<sup>7</sup> A.N. Asaul, B.M. Karpov, V.B. Perevyazkin, M.K. Starovoitov - Modernization of the economy based on technological innovation, St. Petersburg: ANO IPEV, 2008 (in Russian)

Real investments - investments in real assets, i.e. in creation new, reconstruction or modernization of the existing enterprises, productions, technological lines, various subjects to production and social service for the purpose of qualitative and proliferation of fixed assets of production and non-productive appointment as indispensable condition of a gain of profitability and profitability of the enterprises, firms and national economy in general, the level of social security and service of the population.

Financial (portfolio) investments – investments of capital in various financial instruments (assets) among which the most significant share is occupied by investments of capital in securities (deposits to banks, bonds, actions, deposits).

Purchase of securities doesn't create the real, physical capital. But if the money gained from sale of shares invests the company which has sold them in production, construction, acquisition of the equipment, then financial investments becomes monetary investments in the real capital for creation of the new enterprises or development (expansion) of the existing productions. In this regard financial investments are always transformed to real.

Investments into non-material values are an investment of capital in scientific research, training, advertising, acquisition of licenses for use of new technologies, obtaining the trademark, and also the right of use of the earth, natural resources, software products for the computer etc.

2. On composition of participants of investment process, their contribution to development and project implementation: individuals; enterprises; shareholders; commercial banks; structures of higher level in relation to the project (the companies, holdings, FPG); budgets of different level (regional, local).

3. On financing sources: own (depreciation, profit); loan (credits); attracted (by means of issue of shares, budgetary).

4. Depending on the end results:

- on increase in production;
- on improvement of quality of the made production;
- on saving of resources (eventually, on prime cost lowering);

- on increase in quantity of jobs.

5. From the point of view of a directivity of actions of investment are subdivided on:

- initial investments (net - investments) – investments on creations of the enterprise: construction of buildings, constructions, acquisition and installation of equipment, creation of the material inventories;

- the extensive investments directed to extension of the enterprises increase in production potential;

- reinvestments – the investments connected to process of reproduction of fixed assets of the enterprise. In this case, the enterprises the having available funds (consisting of depreciation charges and the profit aimed at the production development) spend means for changeover of physically worn-out or obsolete equipment by new.

6. On forms of ownership: private, state, mixed.

7. On investment duration: short-term and long-term.

It is accepted to understand investments of capital for a period of up to one year as short-term investments. During this term there is a derivation of invested funds then they become a factor of production and begin to give return, bring in the income, profit. Long-term investments are accompanied by investment of capital for year or several years, sometimes for decades. For example, construction of new buildings and constructions either their reconstruction, or investments in a human factor, in education which are capable to give return only after completion of training and the practical application of the gained knowledge that takes many years.

Investment of capital in any investment project is expedient if<sup>8</sup>:

- the net profit from this investment will exceed net profit from the room of funds for the bank deposit;

- profitability of investments will be above the rate of inflation;

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<sup>8</sup> "Bull's Eye Investing" by John Mauldin - 2004

- profitability of this project taking into account the temporary cost of money will be above profitability of alternative projects;

- profitability of assets of the enterprise after implementation of the project will increase (or, at least, won't decrease) and anyway will exceed an average settlement rate on borrowed funds;

- the considered project corresponds to the general strategic line of the enterprise from the point of view of formation of rational assortment structure, payback periods of expenses, existence of financial sources of a covering of expenses, ensuring the stable, but modest, or, on the contrary, concentrated, but delayed in time receipts, etc.

At the same time it is necessary to emphasize that, despite existence of the similar general principles, determination of the selection terms of an investment policy, principal for this or that economic entity, always very subjectively and depends on the strategic financial objectives pursued at this specific stage.

However in case of any level of subjectivity the financial manager, making the decision, shall consider the temporary cost of money, riskiness of the project and its attractiveness in comparison with alternative opportunities of investment of capital in respect of maximizing the income and increase in property in case of the acceptable risk degree.

In case of attraction of investments into the sphere of ICT it is possible to face some main problems:

- 1) technological inequality of different regions and population. For example, analysts of InternetLiveStats provided statistics on number of Internet users and penetration of the Internet in 201 countries of the world. According to data for July 1, 2016, in Uzbekistan Internet access has more than 15,4 million citizens that makes 51% of the population of the country. The gain of Internet users for 2016 made 6,1% (893 thousand), and for 2015 the number of users of the World Wide Web in the country increased by 1,7 million people<sup>9</sup>. Thus, according to InternetLiveStats. Uzbekistan took the 37th place in the rating of the countries on

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<sup>9</sup> Electronic resource: <http://www.internetlivestats.com> (Internet Users by Country (2016))

number of Internet users. According to the international statistical data age structure of the population of the country:

- 0 — 14 years — 24,9%,
- 15 — 64 years — 68,3%,
- 65 — 4,7% are higher.

Thus, it is possible to watch ratio inequality quantity the Internet of users with the number of the population at least of average group.

2) Complexity of an assessment of attractiveness of information and communication technologies.

3) An assessment of investment projects only from economic indices.

4) The accelerated development of information and communication technologies and the fast-changing requirements of the market.

5) Expanded directivity of information and communication technologies (equipment, software, information platforms, cloudy data, information systems, etc.);

6) Broad application of information and communication technologies in all fields of activity of the person (medicine, architecture, education, etc.).

If to consider investment activities in the sphere of ICT of the Republic of Uzbekistan, then it is possible to select the following main problems:

1. Imperfection of a normative and legal basis

In the country it is accepted a row of the laws and resolutions designed to promote development of business and investment activities. Among them it is possible to select:

- Law «About Foreign Investments»;
- Law «About Investment Activities»;
- Law «About Warranties and Measures of Protection of the Rights of Foreign Investors»;
- Law «About Protection of the Rights of Investors on Securities Market».

It is necessary to add a number of the normative legal acts adopted in the form of decisions of the President of the Republic of Uzbekistan and government

resolutions to them. So annually there is a resolution of the head of state "About the investment program of the Republic of Uzbekistan on ... year" in which to be told about plans in carrying out investment projects and about the new changes in the legislation designed to promote it. The called laws define a number of very essential tax benefits and other preferences designed to promote attraction of private and direct foreign investments.

But it is necessary to mark that these normative legal acts don't envelop a number of questions, namely:

- venture investment;
- social efficiency of the sphere of ICT;
- favorable investment conditions for implementation of innovative projects and consultation of young businessmen.

#### 2. Complexity of finding of information by investors

There are no information resources describing information for investors in full. The existing investment website [www.uzinfoinvest.uz](http://www.uzinfoinvest.uz) doesn't give any information on the sphere of ICT.

3. Absence of a scientific basis of practical development of ICT of processes and maintenance of innovative ICT of development of youth.

There are no favorable investment conditions for investment into scientific and practical development, and also their consultations.

4. Small spanning of the sphere of ICT in the annual investment program of the Republic of Uzbekistan

On an example, in the program for 2017 the following projects are affected:

- Construction of a fiber line of communication (2017-2019)
- Creation of center of storage and data handlings (Data-center) for the Electronic Government system (2015-2020)
- National general education electronic library (Together with National library of Uzbekistan) (2016-2017)
- Extension of access for the population to services of the Electronic Government system (2016-2019)

- Development of a network of terrestrial digital broadcasting of the Republic of Uzbekistan (2015-2017)

- Technical and technological development of a cellular transmission network of SP LLC Kosk (2017)

- Extension of a cellular system of LLC Unitel (next stage) (2017)

Now Uzbekistan is faced by the task of restructuring of national economy on the modern technological basis. That investment attachment in development of information and communication technologies in turn requires, and also to all spheres where will be implemented ICT.

## 2. Influence of various characteristics on investments attraction in the ICT.

Investment process — difficult many-sided process which the set of factors which knowledge has important scientific and practical value influences. Also doesn't matter to what sphere investment is made. From the practical point of view knowledge of such factors, the mechanism of their influence on investment activity and efficiency of investments is a basis for development of evidence-based investment policy and more effective management of investment process.

Efficiency of investments is understood as obtaining economic or social result on one investments.

Depending on sources the factors influencing efficiency of investments can classify by the following signs.

Depending on scale of their influence in any sphere including in the sphere of ICT, it is possible to divide into three levels<sup>10</sup>:

- the factors influencing efficiency of investments at the macrolevel;
- the factors influencing efficiency of investments at the regional level;
- the factors influencing efficiency of investments at the level of the enterprise (organization).

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<sup>10</sup> Benjamin Graham. The Intelligent Investor The Definitive Book On Value Investing. - Moscow: Alpina Publisher, 2014

We will consider this classification of factors in more detail.

It is possible to carry to the factors influencing efficiency of investments at the macrolevel:

- efficiency of the economic and social policy pursued by the state;
- investment risk;
- perfection of tax system;
- rate of inflation;
- a political and social situation in the country;
- refunding rate of the Central Bank of RUZ and interest rate of commercial bank;
- investment appeal;
- perfection of the regulatory base in the field of investment activity;
- degree of perfection of investment infrastructure;
- the created conditions for attraction of foreign investments;
- efficiency of the investment policy pursued by the state, etc.

If to consider the concrete sphere, such as ICT, it is also necessary to consider development of the sphere in the country, her share in economy and the prospects of development.

The factors influencing efficiency of investments at the regional level admit:

- efficiency of the pursued economic and social policy;
- investment appeal of the region;
- the created conditions for attraction of foreign investments;
- improvement of tax system at the regional level;
- efficiency of the pursued regional investment policy;
- degree of perfection of regional investment infrastructure;
- level of investment risk, etc.

In the sphere of ICT development of technologies of a region and a possibility of realization and investment projects for a certain region is also considered.

The factors influencing efficiency of investments at the level of the enterprise (organization) are:

- efficiency of the economic and social policy pursued by the enterprise;
- existence of effective investment policy;
- quality and competitiveness of products;
- level of use of the fixed business assets and production capacities;
- degree of rationality of use of the available resources at the enterprise;
- competence of directors and degree of perfection of business management;
- quality and efficiency of the realized investment projects, etc.

Depending on an orientation of impact on an efficiency of investments all factors can be united in two groups:

- positive which positively influence an efficiency of investments;
- negative which negatively influence efficiency of investments.

For example, it is possible to refer decrease in the rate of inflation, a tax burden, refunding rate of the Central Bank of RUZ to positive factors, etc., and to negative — an aggravation of an economic crisis in the country; an unstable social and political climate in the country, increase in the rate of inflation, etc.

Depending on the nature of emergence all factors, including in efficiency of investments, it is possible to unite in two groups<sup>11</sup>:

- objective, i.e. factors which emergence not connected with human activity, and is caused by the natural or similar phenomena;
- subjective, i.e. factors which emergence is connected and caused by human activity, in particular management and creative activity.

All factors influencing efficiency of investments in dependence on time of their emergence can be differentiated on temporarily acting and permanent.

Depending on extent of influence on efficiency of investments all factors can be divided into three groups:

- having significant effect;
- having less significant effect;
- exerting weak impact.

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<sup>11</sup> Benjamin Graham. The Intelligent Investor The Definitive Book On Value Investing. - Moscow: Alpina Publisher, 2014

This classification is lawful only for a small period of time as with change of a situation also extent of influence of separate factors changes.

It should be noted that between efficiency of investments, the close interrelation exists investment appeal and investment activity, i.e. efficiency of investments results in investment appeal that involves the organization of investment activity.

Thus, efficiency of investments in the sphere of ICT defines investment appeal, and investment appeal — investment activity. The efficiency of investments is higher, the level of investment appeal is higher and investment activity in the sphere of ICT and vice versa is more large-scale.

Investment appeal at the macrolevel is understood as the conditions (economic, legal, political, social, etc.) created by the state to all subjects of managing, and also foreign investors for favorable investments of investments for the purpose of development of national economy.

Investment appeal at the macrolevel depends on the following factors:

- political stability and its predictability on the future;
- the main macroeconomic indicators characterizing a condition of national economy (the rate of inflation, growth rates of GDP, volumes of release of industrial output, interest rates of refinancing of the Central Bank of RUZ, budget deficit, etc.) and their forecast for the future;
- existence and degree of perfection of regulations in the field of investment activity,
- degrees of perfection of tax system in the country;
- social, including criminogenic situation in the country;
- degrees of investment risk, etc.

It should be noted that investment appeal at the macrolevel creates as if the general background and for investment appeal at the regional level and level of separately taken enterprise. And at the same time investment appeal at these levels can significantly closed from the general background.

Investment appeal of regions — the integral characteristic of certain regions of the country from a position of investment climate, the level of development of investment infrastructure, a possibility of attraction of the investment resources and other factors significantly influencing formation of profitability of investments and investment risks.

Investment appeal of this or that region of the Republic of Uzbekistan depends on many factors and, first of all:

- extents of industrial development of the region;
- geographical arrangement and climatic conditions;
- extents of development of infrastructure, including for investment activity;
- importance of the available privileges for investors in the region;
- availability of minerals and degree of advantage of their development, etc.

Investment appeal of the enterprise (organization) is understood as the generalized characteristic from the point of view of prospects, advantage, efficiency and minimization of risk of an investment of investments into his development at the expense of own means and means of other investors.

Investment appeal of the enterprise (organization) in the sphere of ICT is characterized by the following factors<sup>12</sup>:

- indicators of overall performance of the enterprise in dynamics;
- indicators of liquidity, solvency and financial stability of the enterprise in dynamics;
- prospects of development of the enterprise and possibility of sales of products;
- reputation of the enterprise (image) in the domestic and international market;
- market rate of stocks of the enterprise;
- the size of net profit falling on one action, etc.

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<sup>12</sup> E.D. Streltsova, Evaluation of the investment attractiveness of innovative projects based on fuzzy logic. I: Synergy, 2013 (in Russian)

For years of transition to the market relations a certain regulatory base in the field of investment activity which has played has been created and plays a certain positive role in investment activity. Her main shortcomings are that she has mentioned not all parties of investment activity, often changes and therefore it is still far from perfect.

Knowledge of factors, the mechanism of their influence on investment activity and efficiency of investments in the sphere of ICT has important scientific and practical value, and first of all for management of investment activity at any level. But at the same time it is necessary to consider all set of factors as only in this case it is possible to operate investment activity and to achieve a goal, t. e, an integrated approach at management of investment activity is required. Such approach is provided by investment policy.

### 3. Purpose of development of the program to attract investments

In the strategy of any sphere definite purposes of investment development of this sphere, necessary volumes of investment resources, advantages which the sphere can offer potential investors are marked out, and sphere positions on these factors among competitors are defined. The analysis of the current provision of key kinds of activity in the sphere has to be carried out, priority sectors and spheres of investment, target investors and the main directions of the marketing program of the sphere are defined.

Besides, the action program on investment creating favorable conditions the sphere and to advance of attractive image in the country and abroad has to be presented to strategy.

The purpose of development of the program of attraction of investments in the sphere of ICT follows from the informatization purpose in the country.

The main goal of informatization - to provide improvement of quality and the standard of living of the population due to wide use of information resources and technologies in production and social life of area<sup>13</sup>.

Informatization and creation of information industry is one of the most important ways of realization of intellectual potential - the main resource of the country.

Information branch can and has to become one of key, vital spheres defining the long-term prospects of development of the country.

The main principles of informatization are<sup>14</sup>:

- integration of the information environment with a common information space of the World community;
- demonopolization of the information services and structures disposing of information resources;
- use of the market principles of management of informatization in combination with state regulation;
- creation of conditions for development of comprehensive informatization and business in the sphere of information industry.

The main directions and the purposes of informatization of the country are:

- realization of state policy in the sphere of formation and association of information resources, informatizations and ensuring the rights of citizens for information;
- creation and support in the country of area of necessary information infrastructure and resources for sustainable social and economic development, including;
- formation of the market of information resources, services, information systems, technologies, means of their providing;

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<sup>13</sup> Ursul A.D., Vashchekin N.P., Paskhin E.N. Informatization of society and sustainable development. - Moscow, 2000 (in Russian)

<sup>14</sup> Ursul A.D., Vashchekin N.P., Paskhin E.N. Informatization of society and sustainable development. - Moscow, 2000 (in Russian)

- providing conditions for development and protection of all forms of ownership on information resources;
- ensuring balance of interests in use and development of the information environment of the government, corporate institutions and certain citizens for high-quality information service;
- creation and improvement of system of attraction of investments and the mechanism of stimulation of development and implementation of the projects of informatization directed to increase in labor productivity, improvement of quality and increase in competitive capacity of production;
- development of standard and legal base of information exchange and formation of the market of information and telecommunication services in the territory of the area;
- the organization of confidential communication and ensuring the protected information exchange between structures of credit and financial system, the stock market, scientific institutions, the industrial enterprises;
- formation at citizens of high information culture with awareness of economic feasibility of information services;
- increase in business and public activity of citizens by granting an opportunity, equal with government institutions, to use open scientific and political information, and also information funds of education, cultures, etc.;
- support of corporate and regional information systems and networks of the country, and also ensuring their compatibility and interaction in a common information space;
- increase in level of sense of justice of citizens by representation of free access to the legal and normative documents defining their rights, duties and opportunities to them;
- expansion of opportunities of control and active participation of citizens and public organizations in activity of public authorities and local governments.

In global sense according to regulations the Investment program is a complex of the interconnected measures directed to achievement of sustainable and dynamic

development of national economy, realization of the main priorities and strategic tasks of structural transformation of separate branches and regions of the republic by rational use natural raw, financial, material and a manpower.

In essence this program is the instrument of realization of the state investment policy. It includes the list of priority investment projects and is formed on the basis of such principles as:

- support of the most important branches of economy with a priority on the organization of productions with profound processing of raw material resources, to agriculture production, release of finished competitive goods;
- prime investment of socially important branches (education, health care);
- further development and improvement of municipal and transport infrastructure.

The state investment program is usually formed for 1 year and approved by the head of state. Means according to the investment program are formed of the state budget, funds, the foreign credits.

The main task of the state investment policy is formation of the favorable environment promoting attraction and increase in efficiency of use of investment resources in development of economy and the social environment.

The adopted investment program covers all spheres of economy. But it is possible to notice that to information and communication technologies in the Investment program the small attention is paid to the sphere though this sphere plays an important role in social and economic development of the country now, and also a country exit to the world scene.

It is expedient to develop the Investment program directed to the concrete sphere of information and communication technologies covering not only investment projects, but also necessary methods and means of modernization of investment processes in the sphere of information and communication technologies and also in spheres, where information and communication technologies are directly mentioned, develop.

## Conclusions to chapter 1

On chapter 1 «Scientific-theoretical bases of development of the program to attract investments in the ICT sector» the following conclusions have been drawn:

1. The topical issues connected with investment process are presented;
2. The main problems connected with investments attraction in the sphere of information and communication technologies are considered;
3. The major factors influencing efficiency of investments in the sphere at the macrolevel, microlevel and at the level of the enterprise are considered. The interrelation between efficiency of investments and investment appeal is given. Also major factors, influencing investment appeal also at the macrolevel, microlevel and at the level of the enterprise are considered;
4. The purpose of development of the program to attract investments in the ICT sector is considered. The main goal of informatization - to provide improvement of quality and the standard of living of the population due to wide use of information resources and technologies in production and social life of area.

## **CHAPTER 2. ANALYSIS OF MODERN METHODS OF INVESTMENTS ATTRACTION IN THE ICT SECTOR OF THE REPUBLIC OF UZBEKISTAN**

### **1. Characteristic of the main methods and instruments of investments attraction**

In order to submit for consideration the investment program in the ICT sector of the Republic of Uzbekistan, first of all it is necessary to consider whether this sphere is attractive to investors.

Under the method of the investment project financing is understood the way to attract investment resources in order to ensure financial feasibility of the project. The main methods of investment projects financing are: self-financing, shareholding, as well as other forms of equity financing; credit financing (investment credits of banks, issue of bonds); financial rent (leasing); budgetary financing; the mixed financing (on the basis of various combinations of these ways); project financing.<sup>15</sup>

Sources of investments attraction represent the money used as investment resources. They are subdivided on internal (own capital) and external (the attracted and loan capital).

Internal financing is provided at the expense of the owner planning implementation of the investment project. This financing is provided at the expense of own means — the authorized (joint-stock) capital, and also the stream of means formed during activity of the enterprise, first of all, of net profit and depreciation charges. It is standard that internal methods of financing can be used only for implementation of small investment projects. Capital-intensive investment projects are, as a rule, financed for the account not only internal, but also external sources. As use of own means of the owner can not be enough for implementation

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<sup>15</sup> The world market of information services - Ernst Spiridonov, Mikhail Klykov, Mikhail Rukin, Nikolai Grigoriev, Tatyana Balalaeva, Andrey Smurov, the separate edition – 2010 (in Russian)

of the project in general. Therefore it is expedient to adhere to reasonable balance and a combination of various ways of investment of the project (diversification of sources of financing).

The self-financing method in essence is the most reliable method of investment. When determining a share of own means in a total amount of long-term investments use the coefficient of self-financing (Ksf) established on a formula 2.1:

$$Ksf = (OS : TI) \times 100, \quad (2.1)$$

where OS - own sources in a form of net profit and depreciation charges;

TI - total amount of long-term investments (capital investments).<sup>16</sup>

According to standards value of coefficient has to be not lower than 0,51 (51%). At its lower value (for example, 0,49) the enterprise loses financial independence in the sphere of investment activity. It is necessary to refer lack of the additional expenses connected with attraction of the capital from external sources and preservation of control of activity of the enterprise from the owner to advantages of internal financing of the enterprise. A lack of this type of financing of the enterprise is not always his possible practical application.

External financing provides use of external sources: means of financial institutions, non-financial companies, population, state, foreign investors, and also additional deposits of monetary resources of founders of the enterprise. It is carried out by mobilization attracted (participation financing) and loan (credit financing) means.<sup>17</sup>

We will consider in more detail types of methods of external financing of investment projects.

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<sup>16</sup> The world market of information services - Ernst Spiridonov, Mikhail Klykov, Mikhail Rukin, Nikolai Grigoriev, Tatyana Balalaeva, Andrey Smurov, the separate edition – 2010 (in Russian)

<sup>17</sup> Introduction to the Information Business: Textbook / Ed. V.P. Tikhomirova, A.V.Khoroshilov. Moscow: Finance and Statistics. – 1996 (in Russian)

Incorporating as a method of financing of long-term investments is usually used for implementation of perspective projects at regional and branch diversification of investment activity. Generally this method is applied in strategic spheres, such as: oil and gas industry. Informatization and telecommunications, etc. Participation financing of investment projects can be carried out in the following main forms:

- carrying out additional issue of shares of the operating enterprise which is on legal form joint-stock company for financial security of implementation of the investment project;
- attraction of additional resources (investment contributions, deposits, shares) founders of the operating enterprise for implementation of the investment project;
- creation of the new enterprise intended especially for implementation of the investment project.<sup>18</sup>

One of forms of investment projects financing by creation of the new enterprise intended especially for implementation of the investment project is venture financing. Venture financing allows to raise funds for implementation of initial stages of investment projects implementation of innovative character (development and development of new types of production and the technological processes) which are characterized by the increased risks, but at the same time opportunities of essential increase of cost of the enterprises created for implementation of these projects.

Venture financing assumes attraction of financial resources in authorized capital of the enterprise of investors who initially assume to sell the share in the enterprise after its cost during implementation of the investment project increases. The income connected with further functioning of the created enterprise will be received by those persons who will get his share from the venture investor.

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<sup>18</sup> The world market of information services - Ernst Spiridonov, Mikhail Klykov, Mikhail Rukin, Nikolai Grigoriev, Tatyana Balalaeva, Andrey Smurov, the separate edition – 2010 (in Russian)

The main forms of credit financing are investment loans from banks and other financial institutions, as well as bonded loans.

Investment lending means the possibility of obtaining long-term bank loans on acceptable terms for financing capital investments in the fixed capital of the enterprise.

Investment loans of banks act as one of the most effective forms of external investment projects financing in cases when companies can not ensure their sale at their own expense and issue of securities.

Investment loans are, as a rule, medium- and long-term. The term of attracting an investment loan is comparable with the timing of the implementation of the investment project. At the same time, an investment loan may provide for a grace period, that is, a grace period for the repayment of the principal. This condition facilitates the servicing of the loan, but increases its value, since interest payments are calculated with the outstanding debt.

Bond loans as a source of debt financing of long-term investments are becoming more widespread. Target bonded loans are the issuance by the enterprise - initiator of the project of corporate bonds, the funds from the placement of which are intended to finance a certain investment project. However, in modern conditions, only well-known joint-stock companies (corporations) are able to issue bonds, whose solvency does not cause doubts among creditors. Issue of corporate bonds has advantages over other sources of borrowing from the financial market. A joint-stock company has the right to apply to numerous investors-potential buyers of its securities. The circle of creditors of the corporation is significantly expanding.

Financial leasing (leasing) is used when there is a lack of own funds for real investments, as well as for capital investments in facilities with a relatively short period of operation or with a high degree of technology variability.

Leasing is a complex of property relations arising when a leasing object (movable and immovable property) is transferred to temporary use on the basis of its acquisition and delivery to long-term lease. Leasing is a type of investment

activity in which the lessor under a financial lease (leasing) contract is obliged to acquire the property from a certain seller into the property and give it to the lessee for a temporary use fee.

The budgetary financing of investment projects is carried out by means of financing within target programs and financial support. It provides use of budgetary funds in the following main forms: investments into authorized capitals of the operating or again created enterprises, the budgetary credits (including the investment tax credit), provision of guarantees and subsidies.

In the Republic of Uzbekistan financing of investment projects within target programs is connected with implementation of the State investment program which is adopted annually.

Project financing in the international practice is understood as the financing of investment projects which is characterized by a special way of ensuring recoverability of investments which cornerstone investment qualities of the project, that income which will be gained by the created or re-structured enterprise in the future are. The specific mechanism of project financing includes the analysis of technical and economic characteristics of the investment project and an assessment of the related risks, and base of return of invested funds is the income of the project remaining later coverings of all expenses.

Feature of this form of financing is also the possibility of combination of different types of the capital: bank, commercial, state, international. Unlike a traditional business deal dispersal of risk between participants of the investment project can be carried out.<sup>19</sup>

The mixed financing is based on various combinations of the above-stated methods and can be realized in all forms of investment into fixed capital.

Each of the used sources of financing possesses certain advantages and disadvantages which are specified in the table-1. Therefore implementation of any

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<sup>19</sup> The world market of information services - Ernst Spiridonov, Mikhail Klykov, Mikhail Rukin, Nikolai Grigoriev, Tatyana Balalaeva, Andrey Smurov, the separate edition – 2010 (in Russian)

investment project assumes justification of strategy of financing, the analysis of alternative methods and sources of financing, careful development of the scheme of financing.

**Table №1**

**Comparative analysis of investment attraction methods \***

<b>№</b>	<b>Method of investing</b>	<b>Advantages</b>	<b>Disadvantages</b>
1.	Self-financing	<ul style="list-style-type: none"> <li>- absence of additional costs associated with attracting capital from external sources;</li> <li>- maintaining control over the activities of the enterprise on the part of the owner;</li> <li>- ease, accessibility and speed of mobilization;</li> <li>- reducing the risk of insolvency and bankruptcy.</li> </ul>	<ul style="list-style-type: none"> <li>- the limited amount of funds raised;</li> <li>- lack of own resources to cover capital-intensive investment projects;</li> <li>- diversion of own funds from economic turnover.</li> </ul>
2.	Incorporating	<ul style="list-style-type: none"> <li>- payments for the use of the resources are not unconditional, but are carried out depending on the financial result of the joint-stock company;</li> <li>- the use of attracted investment resources is significant and unlimited in terms of time;</li> <li>- issue of shares allows to ensure the formation of the required amount of financial resources at the beginning of the investment project implementation, as well as delay payment of dividends until the beginning of the period when the investment project will generate revenues;</li> <li>- the owners of shares can exercise control over the targeted use of funds for the needs of the implementation of the investment project.</li> </ul>	<ul style="list-style-type: none"> <li>- issue of shares requires time, additional costs, evidence of financial stability of the enterprise, information transparency, etc. ;</li> <li>- after the issue of shares, the company must pay dividends, periodically send out reports to its shareholders;</li> <li>- the adoption of a decision on an additional issue may lead to dilution of the shares of participation of former shareholders in the authorized capital and reduction of their incomes.</li> </ul>
3.	Venture financing	<ul style="list-style-type: none"> <li>- it is directed to the development and development of new types of products and technological processes;</li> <li>- does not require collateral and other collateral;</li> <li>- can be provided in a short time;</li> <li>- as a rule, does not provide for intermediate payments (interest, dividends), etc.</li> </ul>	<ul style="list-style-type: none"> <li>- increased risks;</li> <li>- the incomes connected with the further functioning of the created enterprise, will be received by those persons who will acquire from the venture investor its share;</li> <li>- the complexity of attracting (investor search);</li> <li>- the need to allocate a share in the capital (usually a controlling</li> </ul>

			<p>stake);</p> <ul style="list-style-type: none"> <li>- the possibility of an unexpected exit of the investor from the project or the realization of its share to third parties;</li> <li>- the maximum requirements for information disclosure;</li> <li>- the possibility of investor intervention in the management of a project or firm;</li> </ul>
4.	Crediting	<ul style="list-style-type: none"> <li>- the possibility of developing a flexible financing scheme;</li> <li>- absence of costs associated with the registration and placement of securities;</li> <li>- using the effect of the financial lever, which allows increasing the profitability of equity capital, depending on the ratio of own and borrowed capital in the structure of the invested funds and the cost of borrowed funds;</li> <li>- reduction of taxable profit due to the assignment of interest payments to costs included in the cost price.</li> </ul>	<ul style="list-style-type: none"> <li>- overpayment;</li> <li>- delay in payment will always be punished by charging certain fines and penalties</li> </ul>
5.	Bonded loans	<ul style="list-style-type: none"> <li>- large volumes and terms of loans;</li> <li>- provision of security is not necessary;</li> <li>- the ability to independently determine the main parameters of the loan and the properties of the placed bonds (reducing dependence on banks);</li> <li>- the ability to independently manage the amount of debt through the purchase of their own bonds on the secondary market;</li> <li>- creation of a public credit history of the issuer's company. With timely fulfillment of its obligations, the issuing company receives the image of a reliable borrower.</li> </ul>	<ul style="list-style-type: none"> <li>- difficulties and additional costs when arranging and servicing loans;</li> <li>- a high threshold of the minimum amount of output, justifying additional costs and necessary for the market circulation of bonds;</li> <li>- junk bonds;</li> <li>- presentation of special requirements for security. Significant requirement to the issuer for transparency of financial statements;</li> <li>- delays in payment of interest or late repayment of debt may adversely affect the company's public credit history and reduce its rating.</li> </ul>
6.	Leasing	<ul style="list-style-type: none"> <li>- the object of the transaction is selected by the lessee, and not by the lessor, who purchases the equipment at his own expense;</li> <li>- lease term, as a rule, is less than the term of physical deterioration of</li> </ul>	<ul style="list-style-type: none"> <li>- the final cost of leasing is usually higher than buying equipment on credit;</li> <li>- payments are mandatory and are made on time, regardless of the condition of the equipment and the</li> </ul>

		<p>equipment;</p> <ul style="list-style-type: none"> <li>- upon termination of the contract, the lessee may continue to lease at a reduced rate or acquire the leased property at a residual value;</li> <li>- in the role of the lessor, the credit and financial institution, the leasing company and the bank, usually acts, which determines the reliability of the lessor.</li> </ul>	<p>results of economic activity;</p> <ul style="list-style-type: none"> <li>- the financial risks of the enterprise are increasing;</li> <li>- additional guarantees or collateral are required;</li> <li>- legal complexity of the transaction, etc.</li> </ul>
7.	Budget financing	<ul style="list-style-type: none"> <li>- it is directed to the development of strategic spheres of the economy;</li> <li>- use of budgetary funds, which leads to profit by the state.</li> </ul>	<ul style="list-style-type: none"> <li>- it covers only major investment projects of state scale</li> <li>- state control and accountability.</li> </ul>
8.	Project financing	<ul style="list-style-type: none"> <li>- the possibility of attracting investment resources significantly exceeding the cash assets of the investor;</li> <li>- reduction of project risks and their distribution among several project participants;</li> <li>- absence of strict requirements to the financial condition of the borrowing company (a new company may be established to implement the project).</li> </ul>	<ul style="list-style-type: none"> <li>- an increased interest rate of the investor and significant fees for the evaluation of the project and organization of financing;</li> <li>- high costs for pre-design work (business planning and economic, financial, technical, environmental, organizational, legal, commercial and marketing expertise);</li> <li>- a long period of consideration of the application of the project itself;</li> <li>- tight control by investors and creditors at all stages of the investment process;</li> <li>- risk of loss of independence of the initiator of the project.</li> </ul>
9.	Mixed financing	<ul style="list-style-type: none"> <li>- the advantages of all participating methods of financing</li> </ul>	<ul style="list-style-type: none"> <li>- the disadvantages of all participating methods of financing</li> </ul>

\* Made by the author

The accepted scheme of financing has to provide:

- the sufficient volume of investment for implementation of the investment project in general and on each step of the settlement period;
- optimization of structure of sources of financing of investments;
- decrease in capital expenditure and risk of the investment project.

## 2. Analysis of the assessment methods of the investments attraction in the ICT sector

If to consider investments attraction, both for the state projects, and for projects of the one concrete enterprise or establishment, first of all the results assessment of the investments attraction is necessary.

The effect of the project implementation can be expressed in several options:

- Economic;
- Social.

Generally by consideration of ICT projects people pay attention to the gained economic effect and apply economic methods of the assessment.

We will consider the main economic methods of an assessment of the investments attraction into the sphere of ICT applied at any level of economy<sup>20</sup>.

Net Present Value (NPV) - method of the net provided income. It should be noted that the method of the net provided income is rather capable to define the most effective investments into information technologies, that is to carry out the choice between several possible options of investments, than to estimate directly economic effect. However, justification of investments can also be made on the basis of this method. So, on the basis of comparison of the m of initial investments expected the size of the entering cash flows during the certain periods of time and a certain financial policy, the internal cost of own or attracted capital, the NPV method defines existence of profitability of these investments. He is obliged by the wide circulation to simplicity of calculation and, as a result, the speed of obtaining results that, in our dynamic time, you see, is important. When obtaining result of calculation first of all positive (more than 0th) or negative (less than 0th) NPV at the considered project is defined. And if negatively value unambiguously says that the project has to be rejected, then positive it far doesn't mean that the project has to be immediately approved. One of the main problems of a method of the net

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<sup>20</sup> Sarv Deerage, Rajiv Kohlit. Measuring of the return on investment in information technology. Literary agency "BuK-Press", Moscow - 2006

provided income consists that in the condition of application of a method identical level for all considered investments is accepted. Also there are several approaches to definition of an internal rate of profitability of the capital, however, considering that the solution of the matter entirely depends on the subject, this risk isn't taken us into account as essential.

Internal Rate of Return (IRR) internal standard of profitability. The method of internal standard of profitability defines an interest rate, the relation, but not an absolute value, and then, comparison of the received rate with a rate of the payback which is already considering risks of the project is made. If the calculated payback exceeds payback taking into account risks, then in that case investment can consider reasonable if it isn't present, the project is subject to a deviation. The method of internal standard of profitability many admits to the most successful of all financial methods as it is not a quantitative, but quality indicator, in fact – a proportion, and therefore is more precisely capable to give an idea on preference of this or that project, especially in conditions when projects strongly (as in the example stated above) differ from each other. Shortcomings of this method result from its relative settlement complexity and have, usually, technical character, for example, in certain cases calculations yield negative result or unsoluble conditions that is, most often, echoes or features of calculations.

Payback - term of return of investments. The method of determination of term of return of investments is the simplest, but also the most superficial of all financial methods considered by us. Already from the name it is possible to understand that within this method calculation of term during which initial investments have to pay off is made. Thus, the payback period of investments into information technologies is regarded as of paramount importance. At all the seeming simplicity the method isn't deprived of objectivity, and that is why. As we see, presently development of information technologies happens very in high gear that involves emergence everything the new and new tools and techniques directed to maintenance of business from IT. It is possible to carry to minuses of this method, besides superficiality unless lack of division of payback on long-term and short-term, that

is the method doesn't consider future cost of money. As a result the method, in itself, can belie true effect of investments and has to be applied in total with the methods of the provided income and internal standard of profitability considered above.

Information Economics (IE) - information economy. This method is focused on an objective assessment of a portfolio of investment projects and provides the direction of resources there where they bring the greatest benefit. The idea is in forcing information service and business - managers to place priorities and to submit more objective conclusions about the strategic value of separate projects for business for the further direction of investments in the directions, most important for business. Heads of departments of information technologies and business - to managers within application of this method need to make the list of ten (or more depending on specifics of activity) the main factors influencing decision-making process and to estimate the relative importance and risk of each of them for further realization. Thus, the turned-out importance and risks will be, respectively, pluses and minuses of projects. As a result the full relative rating of each investment project in a portfolio of information service turns out. One of the bystrykh of ways of definition of priorities and comparison of investments into information technologies about business – the strategy of the company that defines its prevalence.

Portfolio Management (PM) – management of a portfolio of assets. The method of management of a portfolio of assets has incorporated many positive lines of other approaches to an efficiency assessment. For achievement of an ultimate goal the organizations are offered to consider as the staff of information service and investment into information technologies not as an expensive part and as assets which cope by the same principles, as any other investments. In other words it is possible to tell that the head of IT of service exercises constant control over capital investments and estimates new investments by criteria of expenses, benefit and risk as the independent project. He has to minimize risk, investing money in different technological projects, thus forming portfolio of projects and

leveling risks of one investment projects others. Minus of this method is evident. The matter is that to switch to a method not so simply and often this transition involves reorganization as control systems, so, sometimes and change of organizational structure of the subject. In case the organization doesn't change methods of management according to the considered method, then advantages will be lost because mean use of concrete philosophy of work with assets and a human factor it is impossible to underestimate, and upon transition to this method approach of staff of the company to investment projects should be changed.

IT Scorecard - system of indicators of IT. According to many experts, relationships of cause and effect in pure model of the balanced estimated indicators don't work at practice. Some perspective directions to her are inapplicable, for example management of knowledge and growth. Balanced scorecard methodology in pure form demands existence of the strategic scheme, but the subjects working in the sphere of information technologies in the majority have tactical character, they want that or not that is connected with problems of fast development of these technologies what it was told above about. As an alternative to a pure method of system of the balanced indicators there is an approach focused on information technologies and directed to attraction of IT resources to the solution of strategic tasks. Within approach, four classical main directions of the balanced indicators are replaced with the following directions: business development, productivity, quality (for IT - both with internal, and from the external point of view) and decision-making. This program possessing very specific, multilevel approach will belief and the truth serve accepted it for many years. However, bikes and risks of this method identical to risks of a method of management of a portfolio of assets.

Real Options Valuation (ROV) - fair price of options. The method of the fair price of options which is based on a basis of the conferred Nobel Prize of model of an assessment of options of Bleka-Shoulz is directed to determination of quantitative parameters of flexibility or, otherwise, a possibility of risk management. This technology allows to estimate efficiency of rent, merge, purchase and production. She is often used as an alternative to standard procedures

of drawing up the budget and the investment plan (in our case – investments) in the conditions of an uncertain condition of the market and economy (as in the sphere of information technologies) when on the foreground flexibility parameters act. Most the companies use a method of the fair price of options as one of elements of creation of system of financial performance habitual to all and indicators of efficiency including systems of the balanced indicators.

Applied Information Economics (AIE) - application-oriented information economy. A method of application-oriented information economy, perhaps, the simplest and at the same time the most labor-consuming of all considered. It is the simplest to illustrate an essence of a method on a practical example. For example, in case of the project of automation of an information access we shall ask sequentially the following questions and draw the following conclusions:

«Whether more convenient access to information allows to make the decision quicker?»

«If your employee responds to the request of the client during shorter period whether he will lead it to increase in probability of the conclusion of the transaction?»

«On how many percent, in your opinion, this probability will increase?»

And after obtaining this answer to the last question to make financial calculation. A lack of this method is high labor input of performance of actions and, respectively, and the cost of application of a method, in one of postulates of costs of implementation, any action shouldn't surpass results from this action.<sup>21</sup>

The comparative analysis of the above-stated methods is provided in the table-2. Here we can see several features: Simplicity, Cost, Labor intensity, Riskiness, Strategic nature, Operativeness, Perfunctoriness, Success at separate use.

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<sup>21</sup> Dzhuha V.M., Kuritsyn A.V., Stapova I.S. Economics of industrial markets: a textbook. Rostov: Phoenix. – 2010 (in Russian)

Table №2

**Comparative analysis of the assessment methods of the investments attraction  
into the sphere of ICT \***

№	Features Method of evaluation	Simplicity	Cost	Labor intensity	Riskiness	Strategic nature	Operativeness	Perfunctoriness	Success at separate use
1.	NetPresentValue (NPV)	-	+	+	+	-	+	+	-
2.	Internal Rate of Return (IRR)	-	+	+	+	-	-	-	-
3.	Payback	+	-	-	+	-	+	+	-
4.	InformationEconomics (IE)	+	-	+	+	-	+	-	-
5.	PortfolioManagement (PM)	-	+	+	+	+	+	-	-
6.	IT Scorecard	-	+	+	+	+	-	-	-
7.	RealOptionsValuation (ROV)	-	+	+	+	+	-	-	-
8.	AppliedInformationEconomics (AIE)	+	+	+	+	-	+	-	-

\* Made by the author

On the basis of all aforesaid it is possible to draw rather simple conclusion. All methods of definition of economic efficiency have certain shortcomings therefore uses of one of methods can how not to yield result at all, and, having yielded any result, to lead to wrong administrative decisions. Thus, need of use of a complex of methods is obvious. To define what complex of methods to use, it is necessary to be guided by the postulate which is already given above that costs of implementation of any action shouldn't surpass results from this action.

Now subjects don't pay attention to social effect of implementation of the investment project. Usually it is considered the additional characteristic.

Though the social effect plays an important role. Results of an assessment of social efficiency can serve as the proof that investments are aimed at improvement of quality of life of the population, but have no exclusively image character. What is even more important for our country in connection with declaration of 2017 «Year of dialogue with the people and interests of the person».<sup>22</sup>

As a basic indicator for calculation of a cost assessment of the project social efficiency an integrated indicator of social effect of the investment project implementation (ES – social effect), which pays off as the work of coefficient of social efficiency (CSE) and coefficient of regional usefulness (CRU), is used.<sup>23</sup>

Social efficiency is understood as a positive consequence from implementation of the investment project for the population which is expressed in improvement of quality of life at increase in volume or the offer of new services, increases in availability, timeliness and a regularity of their granting.

The assessment of social efficiency is carried out by means of system of indicators of social efficiency of the project. The coefficient of social efficiency of projects pays off how the average value of indicators of social efficiency of the project on a formula 2.2:<sup>24</sup>

$$ISE = \sum_{i=1}^n W_i / N \quad (2.2)$$

where ISE - (indicator of social efficiency) value of an indicator of social efficiency (B %);

W - (weight) weight (importance) of an indicator;

N - quantity of indicators;

i - number of an indicator.

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<sup>22</sup> Electronic resource: <https://www.gazeta.uz/en/2016/12/07/2017/> (2017 will be the Year of Dialogue with the People and Human Interest)

<sup>23</sup> Dmitry Kostyukhin, Andrei Bordachev. Methods for assessing IT investments: brilliance and poverty. Connect Magazine! The world of communication, March 2005 (in Russian)

<sup>24</sup> Dmitry Kostyukhin, Andrei Bordachev. Methods for assessing IT investments: brilliance and poverty. Connect Magazine! The world of communication, March 2005 (in Russian)

The weight and value of indicators is defined on the basis of preferences of the investor. Indicators of public efficiency can consider results of implementation of the investment project for society, including both direct results and expenses of the project, and expense and results in adjacent sectors of economy, ecological, social and other noneconomic effects. The indicators used for an assessment of social efficiency of projects are presented in the table-3.

**Table №3**

**The indicators used for an assessment of social efficiency of investment projects \***

Indicator of social efficiency	Weight of an indicator	Maintenance of an indicator	Value of an indicator, %
<b>Social orientation degree of the project</b>			
<b>1. Priority</b> Compliance of the purpose of IP to priorities, purposes and to the strategy of social and economic development	0,15	correspond	100
		partially answer the declared priorities and the purpose	50
		don't correspond	0
<b>2. Provision of services</b> The level of provision of services provided by the IP, before its implementation from the average level	0,25	less than 50%	100
		from 50 to 75%	60
		from 75 to 100%	30
<b>3. Branch of the project</b> The branch to which the social problem belongs, solved when implementing the IP	0,40	education, health care, social protection of the population, culture, physical culture	100
		housing and communal services	70
		improvement	40
		transport, power, communication	20
<b>4. Coverage results of the project</b> The population using results of realization of IP	0,20	all population	100
		not less than 50% of the population	80
		not less than 25% of the population	60
		not less than 2% of the population	40
		less 2% of the population	20

<b>Extent of influence of the IP realization results on population life</b>			
<b>1. Service prices in comparison with the prices of competitors</b>	0,24	not less than 30% lower	100
		not less than 15% lower	75
		comparable prices	25
<b>2. Increase in employment rate of the population</b>  Increase in jobs at realization of IP to number occupied in area economy	0,13	not less than for 0,1%	100
		not less than for 0,05%	75
		less than for 0,05%	40
<b>3. Influence on the volume of services</b>  Possibility of granting to the population of social services result of the project implementation	0,45	Earlier not provided service	100
		The volume of social service, requirement in which increases, is significantly increased	50
<b>4. Influence on quality of services as a result of the project implementation</b>	0,19	Quality and technology of rendering social services to the population will increase	100
		Quality of rendering social services to the population will increase	70
		The technology of rendering social services to the population will be improved	30

\* Made by the author on the base of the work of Bogdanova A.S. Evaluation of the effectiveness of investment projects with a social focus, IV International Student Electronic Scientific Conference "Student Scientific Forum", 2012 (in Russian)

Having applied an assessment of social efficiency of the ICT project according to the above-stated indicators, the investor will be able to make the final decision on the project implementation, and also will serve as support of social policy of our state.

### 3. Investment appeal research of the ICT sector of the Republic of Uzbekistan on the example of JSC «Uzbektelecom»

«Uztelecom» – the Uzbek telecommunication company (brand) which provides services of broadband access in the Internet, rent of channels to operators and providers of the fixed and mobile communication, local and international telephone communication, cellular communication, the IP telephony, IPTV and a video communication. «Uztelecom» is an official brand of JSC «Uzbektelecom» which interacts and cooperates with the International Telecommunications Union (ITU), the Regional commonwealth in the field of communication, the Organization of satellite communication "Intelsat". The company has more than 2 thousand automatic telephone exchanges with a capacity more than 2 million number from which 93,6 percent are digital. Provision to the broadband Internet for providers is carried out through the International center of package switching. Since 2011 an official brand of JSC «Uzbektelecom» is the «Uztelecom» trademark.<sup>25</sup>

In essence JSC «Uzbektelecom» is a monopolist in the field of informatization and telecommunication. The company carries out a large number of the investment projects aimed at the development of informatization and telecommunication. The main sources of means for implementation of these projects according to data of investment department of JSC Uzbektelecom are:

- own money of JSC Uzbektelecom;
- credits of the international banks;
- credits of Alokabank and other banks of the Republic of Uzbekistan;
- investments of the international companies.

The main source of information for investors on JSC «Uzbektelecom» is the annual report on activity which is posted on the website of the National operator of JSC «Uzbektelecom» of <http://www.uztelecom.uz>, and also the annual report is distributed to the shareholders, partners, investors as existing, and potential.

Other sources of information for investors are absent.

Indicators on various categories are presented in the report. A basis for an assessment of activity of JSC «Uzbektelecom» are the main indicators of activity,

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<sup>25</sup> Electronic resource: <https://ru.wikipedia.org/wiki/Uztelecom>.

such as: net proceeds from product sales, prime cost of the sold products, net profit, profitability of activity, OIBDA, EBITDA, the investments presented in the table-4.

**Table №4**

**Main indicators of activity of JSC «Uzbektelecom»  
for 2011 - 2015 \***

№	Indicators	Years					Average change, %
		2011	2012	2013	2014	2015	
1	Net proceeds from product sales (goods, works and services), (million UZS)	409 511	617 894	686 227,3	806 875,0	797 353,7	120
2	Prime cost of the sold products (goods, works and services), (million UZS)	-	-	379 289,6	464 413,4	475 486,3	112
3	Net profit, (million UZS)	9 814	13 553	15 854,7	39 691,5	32 625,5	147
4	Profitability of activity (net profit / revenue)	-	2,2%	2,3%	4,9 %	4,1%	134
5	OIBDA, (million UZS)	-	204 314,0	156 105,0	157 121,0	-	89
6	OIBDA Margin	-	33,1%	22,8%	19,5 %	-	77
7	EBITDA, (million UZS)	-	95 430	167 812,0	173 111,0	177 312,0	127
8	EBITDA Margin	-	15,4%	24,5%	21,4%	22%	116
9	Invesments, (million UZS)	-	-	141 425,0	131 400,0	448 500,0	217

\* Made by the author on the basis of annual reports of JSC «Uzbektelecom»

According to the table-4 we see that for 5 years the indicator "Net proceeds from product sales" has increased by 20%, but for 2015 his decrease in comparison with 2014 is observed. Decrease has happened for 1,2%. The proceeds from sales of production play very important role in financial and economic activity of the organization and are one of the most important sources of formation of own resources of the enterprise. Also increase during 2011-2015 in an indicator of net

profit for 47%, but as well as the previous indicator has decreased for 2015 of 17,8% is observed. Obtaining the smaller sum of profit by the enterprise can mean increase in costs of production and lowering of the level of its profitability. What we can observe from the indicators of prime cost and profitability given in this table. Prime cost for 2013 - 2015 has on average increased by 12%, and for 2015 – for 2,4%. Profitability during 2012-2015 also tends increase on average by 34%, but for 2015 because of receiving smaller profit in comparison of production got by sales proceeds has decreased by 16,3%.

The main indicators for the investor are three last: OIBDA, EBITDA and Investments.

OIBDA (Operating Income Before Depreciation and Amortization) – operating profit to a deduction of depreciation of fixed assets and depreciation of intangible assets. Thus, OIBDA doesn't include not the operating income which, as a rule, doesn't repeat from year to year. This indicator includes only income gained due to the operations having regular character, OIBDA isn't subject to influence of the single charges, for example, connected with exchange differences or tax discounts.

It has historically developed that the indicator of OIBDA has been created to exclude impact on profit of extraordinary charges and expenses.

Many companies and investors consider that only the operating profit (the income minus operating expenses), is the reliable indicator of cost of the company, and all the rest - legal costs, the income from sale of a part of business and other "single" operations – only distort real profitability of the enterprise.

OIBDA characterizes the operating income to a deduction of depreciation of fixed assets and depreciation of intangible assets. Calculation of an indicator of OIBDA is made on a formula 2.3:

$$\begin{aligned} \text{OIBDA} = & \text{Operating profit} + \\ & + \text{depreciation of intangible assets} + \text{depreciation of fixed assets} \quad (2.3) \end{aligned}$$

The main difference of OIBDA from EBITDA this use in calculations of operational, but not net profit, it means that, OIBDA first of all characterizes profitability of primary activity.

According to many analysts, the indicator of OIBDA reflects current situation of the company, including her ability to finance capital expenses, acquisitions and other capital investments, and also characterizes a possibility of the enterprise to raise borrowed funds and to serve loans.

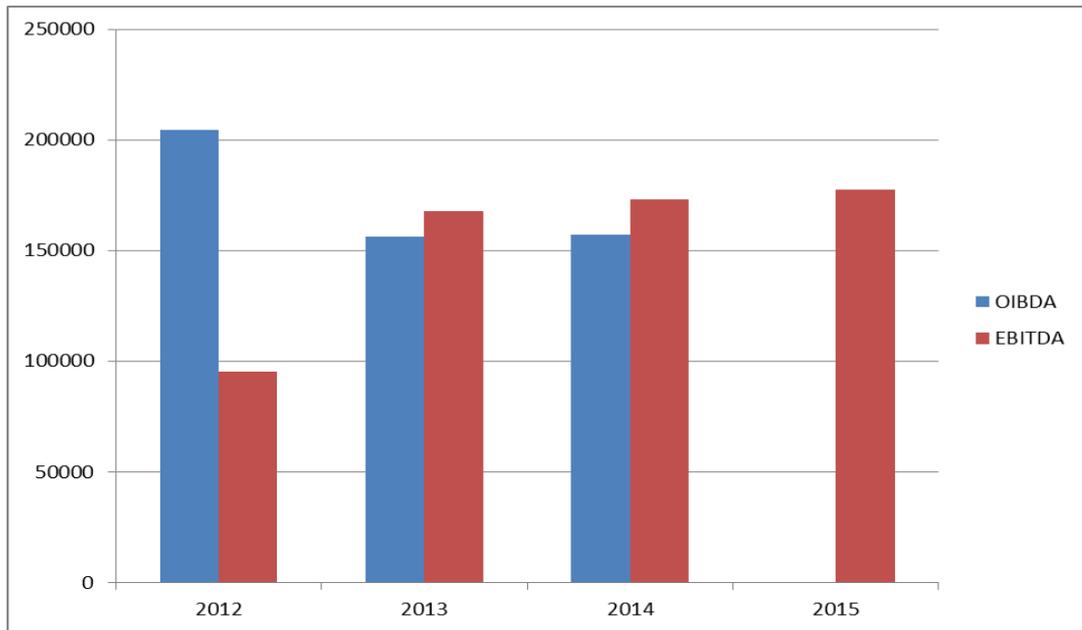
The main indicators which speak about results of work of management is a profit before payment of taxes and percent, and also OIBDA and EBIDA. On these "operational" indicators investors judge profitability, prospects of the company, and also efficiency of activity of management as agents of shareholders.

EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) – profit before interest contribution, taxes and depreciation. EBITDA shows financial result of the company, excepting influence of effect of structure of the capital (i.e. the percent paid on borrowed funds), tax rates and depreciation policy of the organization. EBITDA allows to estimate roughly a cash flow, having excluded such "non-monetary" item of expenditure as depreciation. The indicator is useful when comparing the enterprises of one branch, but having various structure of the capital.

EBITDA (2.4), in turn, is widely used as a component of various coefficients of financial efficiency (profitability of sales, etc.). Investors are guided by EBITDA indicator as the indicator of the expected return of the investments.

$$\text{EBITDA} = \text{Profit (loss) to the taxation} + (\text{Percent to payment} + \text{Depreciation of fixed assets and intangible assets}) \quad (2.4)$$

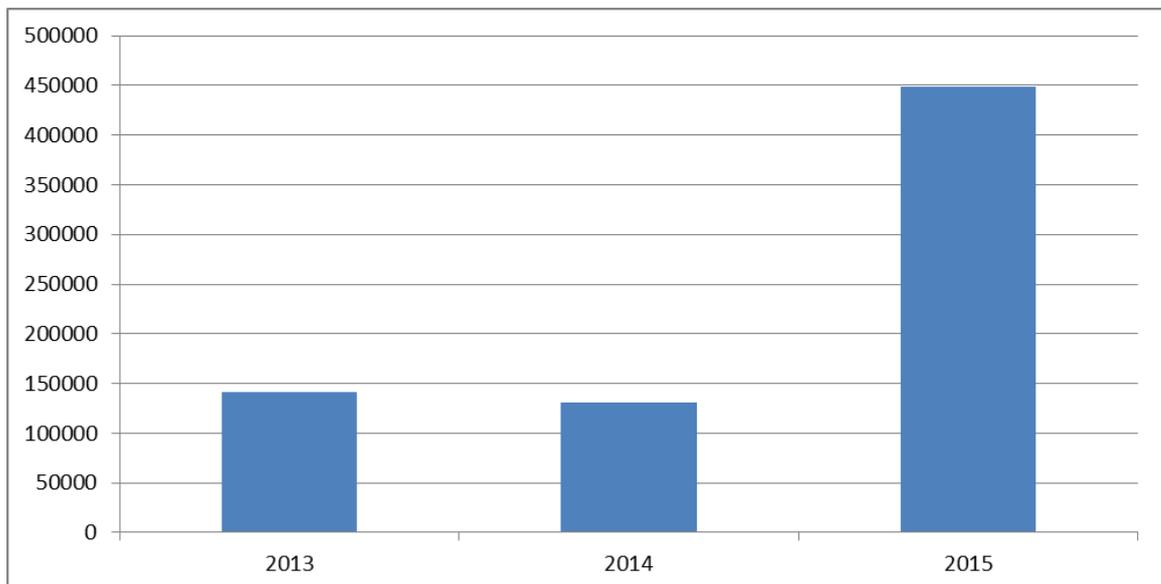
According to the table-4 for 2012-2014 it is possible to observe decrease in an indicator of OIBDA by 11%. And EBITDA indicator for the period from 2012 to 2015 steadily increases on average by 27% (figure 2)



**Fig.2. OIBDA and EBITDA for 2011-2015\***

\* Made by the author

The indicator of Investments of JSC «Uzbektelecom» also steadily increases on average by 117%. The jump of investments has taken place in 2015 almost by 2,5 times. It proves interest of investors in the company (figure 3).



**Fig.3. Investments for 2011-2015\***

\* Made by the author

On average these indicators show that JSC «Uzbektelecom» is investment attractive the companies thanks to an indicator of EBITDA which shows reliability of return of investments of investments. Also appeal is influenced by average increase in other indicators.

## Conclusions to chapter 2

On chapter 2 «The analysis of modern methods of the investments attraction in the ICT sector of the Republic of Uzbekistan» the following conclusions are drawn:

1. Under the method of financing an investment project is understood the way to attract investment resources in order to ensure financial feasibility of the project.

2. The main methods of financing of investment projects are: self-financing, incorporating, and also other forms of participation financing; credit financing (investment credits of banks, issue of bonds); financial rent (leasing); budgetary financing; the mixed financing (on the basis of various combinations of these ways); project financing.

3. Each method of financing has both the advantages, and the shortcomings. Therefore when planning financing it is necessary to develop the optimum scheme for the subject.

4. The scheme of financing has to provide:

- the sufficient volume of investment for implementation of the investment project in general and on each step of the settlement period;
- optimization of structure of sources of financing of investments;
- decrease in capital expenditure and risk of the investment project.

5. The effect of implementation of the project can be expressed in several options: economic and social.

6. Few attention is paid to social effect of the investment project now that is especially important in the sphere of information and communication technologies.

7. The main economic valuation methods of the investment attraction: net present value (NPV), Internal Rate of Return (IRR), Payback - period of return of investments, Information Economics (IE) - information economy, Portfolio Management (PM) – portfolio management of assets, IT Scorecard - system of indices of IT, Real Options Valuation (ROV) - the fair price of options, Applied Information Economics (AIE) - application-oriented information economy

8. All methods of determination of economic efficiency have certain shortcomings therefore uses of one of methods can how not to yield result at all, and, having yielded any result, to lead to erratic administrative decisions. Thus, need of use of a complex of methods is obvious.

9. The main sources of means for implementation of project data according to data of investment department of JSC «Uzbektelecom» are:

- own means of JSC «Uzbektelecom»;
- credits of the international banks;
- credits of «Alokabank» and other banks of the Republic of Uzbekistan;
- investments of the international companies.

10. According to a research of investment appeal of JSC «Uzbektelecom» for 2011-2015 it is possible to draw a conclusion that the company on average is investment attractive the companies thanks to an index of EBITDA which shows reliability of return of attachments of investments. Also attractiveness for this period is influenced by average increase in remaining financial performance, such as: net proceeds from product sales, prime cost of the sold products, net profit, profitability of activities, OIBDA, investment.

### **CHAPTER 3. DEVELOPMENT OF THE PROGRAM TO ATTRACT INVESTMENTS IN THE ICT SECTOR**

#### **1. State regulation improvement of investment processes in the ICT sector**

Improvement of state regulation of investment processes in the sphere of information and communication technologies is necessary for creation of legal conditions for wide circulation and use of ICT in all spheres of public life of the Republic of Uzbekistan.

Based on the above first and second chapters of this thesis it is possible to make several innovative offers including in the sphere of state regulation.

First of all, at improvement of state regulation it is necessary to turn on standard and legal base in this sphere. In the Republic of Uzbekistan throughout independence the strong legal base in the sphere of investment of the general character for all fields of activity has been created. But it is necessary to improve legal system always.

At a statement of problems of investment into the sphere of ICT several spheres where the legal system needs to be improved have been allocated.

The first sphere – venture investment. What is very important for the sphere of ICT. As venture investment is generally directed to development and development of new types of production and technological processes. A problem of this direction is creation of financial conditions for implementation of venture hi-tech projects and, as a result, growth of the small hi-tech enterprises taking into account that the term of formation of the small innovative enterprise makes about three years.

The state support of small and private business has to be directed to stimulation of expansion of cooperation communications between the large industrial, small and private innovative companies. Effective interaction with the large enterprises gives advantage to the small innovative enterprises and firms in deepening of developments, improvement of quality and competitiveness of

production, use of high technologies that promotes increase in demand for their production.

In the Republic of Uzbekistan in a type of lack of the law on venture financing, the concept «venture investments» unambiguously aren't defined.

The second sphere – a social orientation of investment processes. Legal protection and use of preferential mechanisms is necessary for realization of socially directed investment processes.

First of all at decision-making it is necessary to determine the social effect gained from investment projects by the state investment. What can help to define importance of the project and need of use of preferential mechanisms of realization. As it was told above, now the small attention is paid to a social assessment of investment projects. The elected President of the Republic of Uzbekistan Shavkat Mirziyoyev at the solemn meeting devoted to the 24th anniversary of adoption of the Constitution of the Republic of Uzbekistan has told: «Heads of all levels have to realize one truth deeply: not the people serve public authorities, and public authorities have to serve the people»<sup>26</sup>. Thus, the social orientation has to be a prime indicator of investment.

The third sphere - favorable investment conditions for implementation of innovative projects and consultation of young businessmen. Now such concept as «startup» was widely adopted. In a broad sense, the startup is the company created for search of the reproduced and scalable business model. Usually creators of startups are the young students realizing the scientific potential and putting scientific knowledge into practice.

Creation of science and technology park or business incubator at Higher Education Institutions would be relevant to support of innovative practical development of the ideas of youth. For example, creation of science and technology park or business incubator on the basis of the Tashkent university of

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<sup>26</sup> Report of the President of the Republic of Uzbekistan Shavkat Mirziyoyev at the solemn meeting dedicated to the 24th anniversary of the adoption of the Constitution of the Republic of Uzbekistan, December 8, 2016.

information technologies in the sphere of information and communication technologies.

Comfortable conditions more than are desirable for the beginning businessmen. Having proved viability of the project, they can count on hit in business incubator where they will be provided to them rent at preferential price, necessary consultations of experts and that is important, society of adherents. The business incubator can be defined as the organization solving problems of support of the created small enterprises at an early stage of their activity. The help to small business consists in granting to it for rent of rooms on favorable terms (as a rule, 50-70 percent from market price) and any rendering services, since registration of legal entity and finishing with any consultations. As a rule, the ward to incubators help to conduct accounts department, render services in drawing up the business plan and the help in carrying out market researches, assist in search of investors. Besides, on the numerous thematic courses and seminars organized in business incubators, newly made businessmen can constantly increase the educational level.

The creators of a startup intending to develop innovative technologies can be helped by other form of support of business – science and technology park which component can quite be the same business incubator.

Science and technology park — a property complex in which research institutes, industry objects, business centers, exhibition platforms, educational institutions, and also the serving objects are joint: automobiles, access roads, inhabited settlements, protection. The international association of technological parks gives the definition to an object of innovative infrastructure. According to association, the science and technology park is the organization operated by experts whose main goal is increase in welfare of local community by means of advance of innovative culture, and also competitiveness of innovative business and the scientific organizations. For achievement of these purposes the science and technology park stimulates and operates streams of knowledge and technologies between universities, research institutes, the companies and the markets. He simplifies creation and growth to the innovative companies by means of incubatory

processes and processes of removal of the new companies of existing (spin-off processes).<sup>27</sup>

The science and technology park is a real intermediate link between science and practice which realizes one of the main principles of the higher education in the Republic of Uzbekistan – integration of the higher education, science and production.

In the sphere of ICT creation of science and technology park on the basis of the Tashkent University of Information Technologies would be a favorable condition. In turn, implementation of this offer also demands a legal basis and protection.

The following step in improvement of state regulation of investment processes in the sphere of ICT is modernization of structure of administrative body for realization of this process.

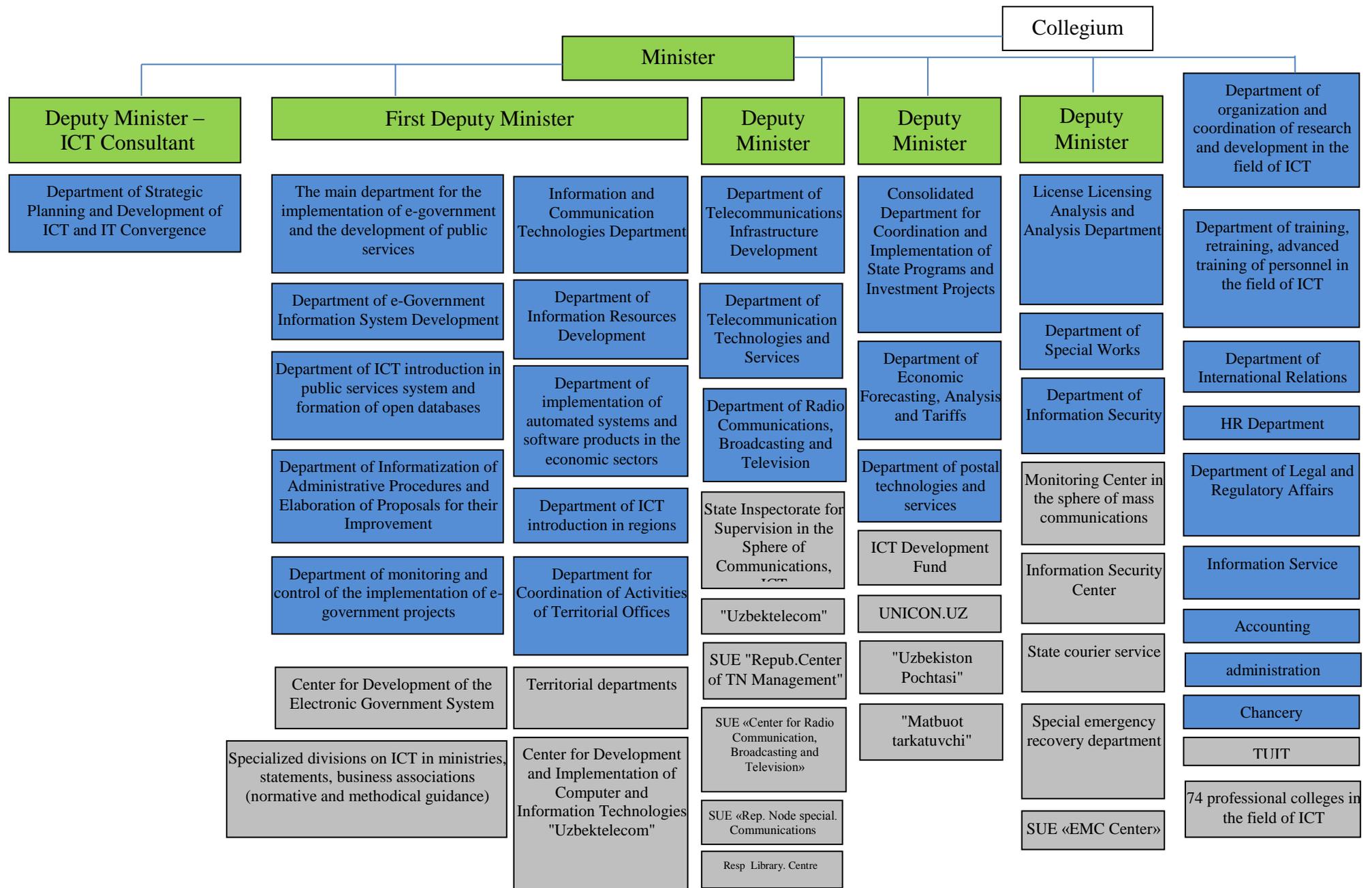
The main body for regulation of the sphere of ICT is the Ministry of development of information technologies and communications of the Republic of Uzbekistan which has been formed on February 4, 2015 by the Decree of the President of the Republic of Uzbekistan No. PD-4702.

According to this decree, one of tasks of the Ministry of development of information technologies and communications of the Republic of Uzbekistan implementation of the international cooperation in the sphere of communication, information technologies and communications, attraction of foreign investments for implementation of priority projects, effective use of a radio-frequency range and in other directions including the field of activity of the ministry is.

The structure of central office of the Ministry of development of information technologies and communications of the Republic of Uzbekistan is presented in fig. 4 according to which in the sphere of investment it is possible to allocate Summary department of coordination and implementation of state programs and investment projects.

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<sup>27</sup> Masterov A.G., Fundamentals of Innovation Management, Volgograd – 2012 (in Russian)



**Fig.4. Structure of central office of the Ministry of development of information technologies and communications of the Republic of Uzbekistan \***

\* website of the Ministry of development of information technologies and communications of the Republic of Uzbekistan. URL: <http://ccitt.uz>

But it should be noted that implementation of investment projects covers only the sphere of ICT, without adjoining to other spheres. The ICT influences wellbeing of the population in different spheres. Today the sphere of ICT merges with other spheres and becomes a development tool. For example it is possible to allocate such spheres as social capital and social equality, health, education, and commerce and to emphasize their importance with the international researches.

**Social Capital and Social Equality:** Research has argued that ICT allows individuals to develop their social capital, and that ICT increases a person's level of well-being, self-esteem, and sense of satisfaction (Bargh and McKenna 2004; Helliwell and Putnam 2004). Ellison et al. (2007) showed that a person's "Facebook intensity" (or how much a person uses Facebook) allows people to keep in touch with others who have moved away and increase their social capital. In addition, Internet connectivity can lower social inequality by allowing citizens who did not have a voice to demand their rights.

Notably, ICT is increasingly being used in innovative ways to allow women to report incidents of harassment and domestic violence. For example, in the Democratic Republic of Congo, ICT is being used to collect evidence and information from women who have faced abuse and to transfer money to these women (UNDP 2012). The ability of ICT to allow citizens to report abuse, connect with loved ones and develop social capital is proposed to affect the level of well-being of citizens, albeit that would not be captured by the country's GDP.

**Health and medicine:** The ability to use ICT technologies to transfer information to disadvantaged communities can provide health information to these communities. Studies have argued that ICT can have an effect on the level of health in underdeveloped countries. Deloitte (2014) argue that providing Internet access in developing countries could reduce child mortality by 7 percent, potentially saving 50,000 children by extending information about best practices during pregnancy.

The use of telephones as health care interventions was shown to lead to increased attendance rates at clinics (O'Brien and Lazebnik 1998) and lower rates of depression (Simon et al. 2004). Other studies found that the use of telephones was a most effective method to increase immunization rates (Kaplan 2006; Szilagyi et al. 2002), thus enhancing people's health by using ICT.

Progress in information technologies has positively affected development of the new directions of the organization of medical care to the population. A possibility of carrying out teleconsultations for patients, observation and control in real time, uses of the systems allowing to fix and broadcast remotely physiological parameters – all this brings medicine to qualitatively new level. The set of the developed countries already actively applies above-mentioned and many other systems in regular practice in health sector.

**Education:** The use of ICT enables the transfer of information to communities that may not have access to education. For example, MOOCs are now allowing students to get access to materials that would otherwise be difficult. Cooper and Sahami (2013) report the case of students who do not have computer science courses at high schools being able to study for and pass advanced placement classes through online videos. MOOCs enabled a 15-year-old Mongolian boy to achieve a perfect score on the Circuits and Electronics MIT MOOC (that was tailored to college sophomores) and learn scientific techniques that are not normally taught in high schools in Mongolia (Pappano 2013). In macro-level estimates, Deloitte (2014) argued that by facilitating the transfer of knowledge, 640 million children could gain access to cost effective learning tools and educational resources as a result of extended Internet connectivity.

**Commerce:** A number of studies have also examined how ICT is changing the manner in which commerce is being enacted. Examples include the eChoupal platform in India (Kumar 2004; Upton and Fuller 2003), which gives farmers up-to-date information and connects them directly to customers and online operatives of traders to directly sell products to end consumers (Romero 2000). Others

showed that after the introduction of ICT, growers were able to get better prices for their produce (Banker and Mitra 2007; Banker et al. 2011; Bayes 2001). These studies argued that it is possible to create an environment where producers can use ICT to get more competitive prices for their produce and improve their standard of living. Access to connectivity could lead to the creation of 140 million new jobs and lift 160 million people out of poverty (Deloitte 2014). Also, citizens of “outsourcing hubs” have the ability to trade services that are enabled by ICT (Sako 2005).

In sum, ICT allows people to communicate and increase their social capital, allows disadvantaged groups to report crimes against them to achieve social justice, transfer health information to disadvantaged groups without healthcare, allows students and teachers access to educational materials, helps eliminate inefficiencies from supply chains, and allows farmers to get better rates for their produce. Taken together, ICT use is proposed to have an impact on the overall level of well-being for the country beyond GDP.<sup>28</sup>

It is also possible to notice development of ICT in such spheres as the architecture and construction, culture, economy and finance, defense, science, etc. is integrated by ICT into these spheres in the form of special projects and improve the sphere. Absolutely new technologies are created: robotics, nanotechnologies, cloud computing, virtual technologies, etc.

Development of ICT in various fields of activity requires consultation from the Ministry of development of information technologies and communications. Therefore it would be rational to create special forces of ICT in the ministries, departments and the business associations which will be engaged in development and integration of ICT in various spheres. The offered structure is presented in fig. 5. This division has to submit directly to Department of strategic planning of development of ICT and convergence of IT, and also to interact with such

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<sup>28</sup> Kartik K. Ganju, Paul A. Pavlou, and Rajiv D. Banker. Does information and communication technology lead to the well-being of nations? A countrylevel empirical investigation. *MIS Quarterly* Vol. 40 No. 2/June 2016

departments as: Summary department of coordination and implementation of state programs and investment projects; Department of the organization and coordination of research and development to the sphere of ICT.

Now there is a broad development of such system as "The electronic government" which is aimed at framing of the strategic directions of further development and enhancement of system of electronic interaction of the state with the population and subjects of business in Uzbekistan.

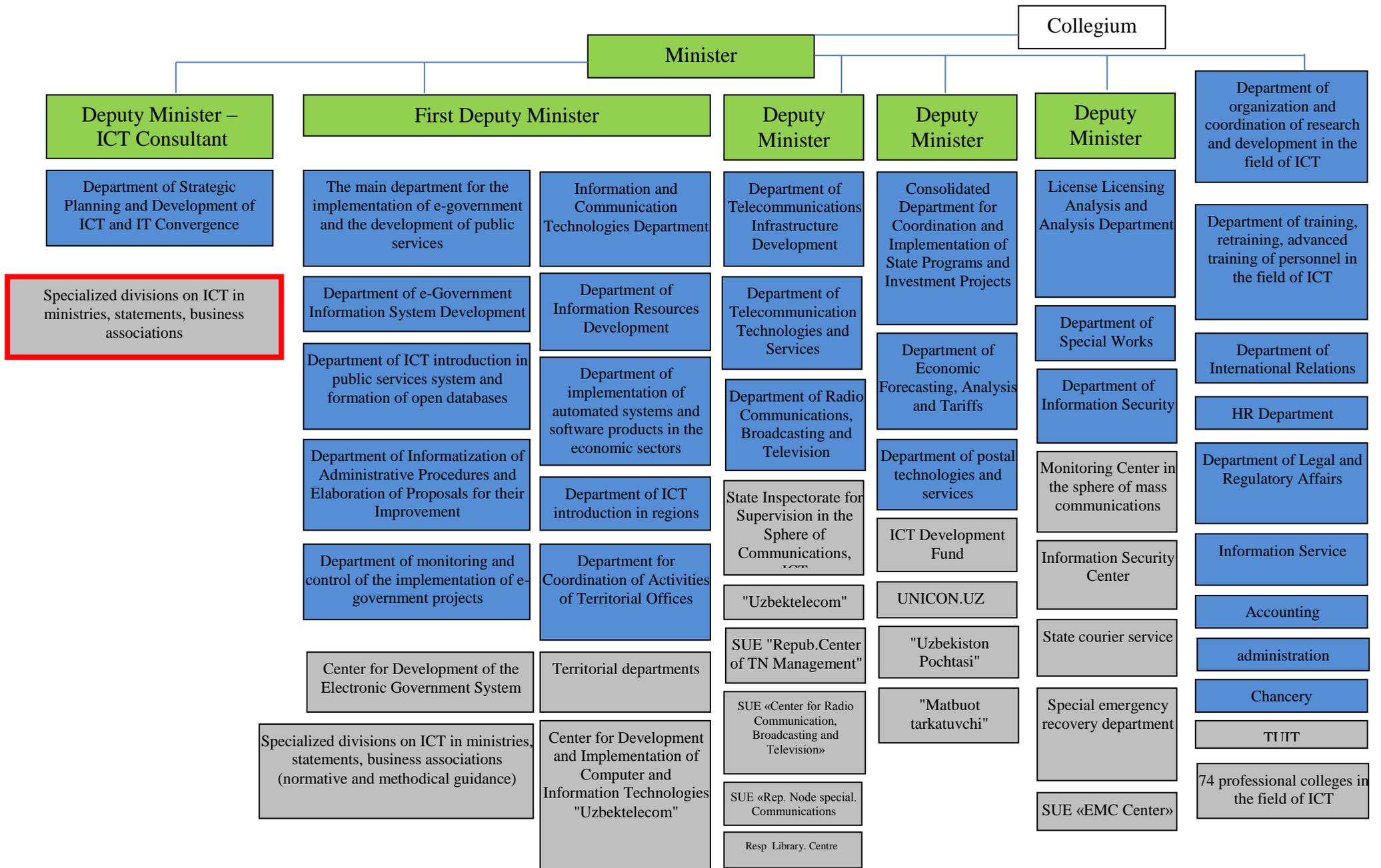
It is possible to select the following projects of the Electronic government:

- Information system of the Cabinet of the Republic of Uzbekistan
- Mobile applications of the Government portal of the Republic of Uzbekistan on the Internet
- National database of the legislation of the Republic of Uzbekistan
- Uniform portal of interactive state services
- Portal of housing and communal services
- State registers
- Forms and forms of public authorities
- Register of basic interactive state services and interactive services of public authorities
- Register of information resources and information systems of public authorities
- Web sites of public authorities

According to the provided interactive services on the my.gov.uz portal the investor can receive following services in the Investments and Trade tab:

- Specialized web system "Uniform Electronic Basis of Investment Projects";
- Provision of information on domestic production and acquaintance of potential buyers with the level of the export prices, terms of delivery and payments, and also inferences of export contracts;
- Check of authenticity of alcoholic products.

Services the minimum in 3 days are provided that in fact it can not attract the investor in connection with not efficiency of obtaining desirable information.



**Fig.5. The offered structure of central office of the Ministry of development of information technologies and communications of the Republic of Uzbekistan \***

\* Made by the author

At the same time there is no consultation on investment activity including in the sphere of ICT. Though as we know that this sphere differs in complexity and uniqueness for investment.

In this regard it is offered to create the investment portal for the sphere of ICT which will be is a part of the system by "Electronic Government".

## 2. Investment portal as a main tool of the program to attract investments in the ICT sector of the Republic of Uzbekistan

In the conditions of market economy of investment also represent the market. The modern market of investments can be divided into two segments: consumers as whom the legal entities wishing to attract the capital for development of the activity, and natural or legal entities which have available funds act and want to gain income from their use.

Special value of investments in market economy consists that they are mobile the redistributed resource which plays the main role in self-regulation of development of new technologies. Interest of investors, and respectively, the size of a stream of investments is directly connected with efficiency of their use that leads to increase in a stream of capital investments in the most perspective and quickly developing directions.

In turn, stabilization of dynamics of development leads to reduction of efficiency of the enclosed investments that promotes the direction of means in new projects. It is necessary to notice that process of investment is connected with great value of uncertainty, however this factor also is a basis of development of all innovative processes.

The investment portal is an instrument for ensuring of evident representation of investment opportunities of the subject, his investment strategy and infrastructure, potential directions of investments, and also collecting and expeditious consideration of complaints, addresses of investors. Information resources of the portal are formed, constantly updated and filled on a basis and in

interaction with data of regional information systems of ensuring town-planning activity. The investment-portal allows to attract investors and businessmen to implementation of projects in the territory of regions.

As the main direction of investment policy measures for the organization of favorable investment climate for activity of investors act. In turn, komponenty investment climate of the region or the sphere information support of investment activity is important. Availability and presentation of information on perspective investment opportunities of the region will allow investors quicker and with smaller expenses to choose the platform for implementation of investment projects, will simplify coordination of investors and businessmen in the choice of the region ready to develop specific opportunities and specific industry, and as a result to increase the volume of the investment resources involved in development of economy.

For this reason relevance of creation of the Internet portal about investment activity, substantially, is defined by need of ensuring investment activity with information of subjects.

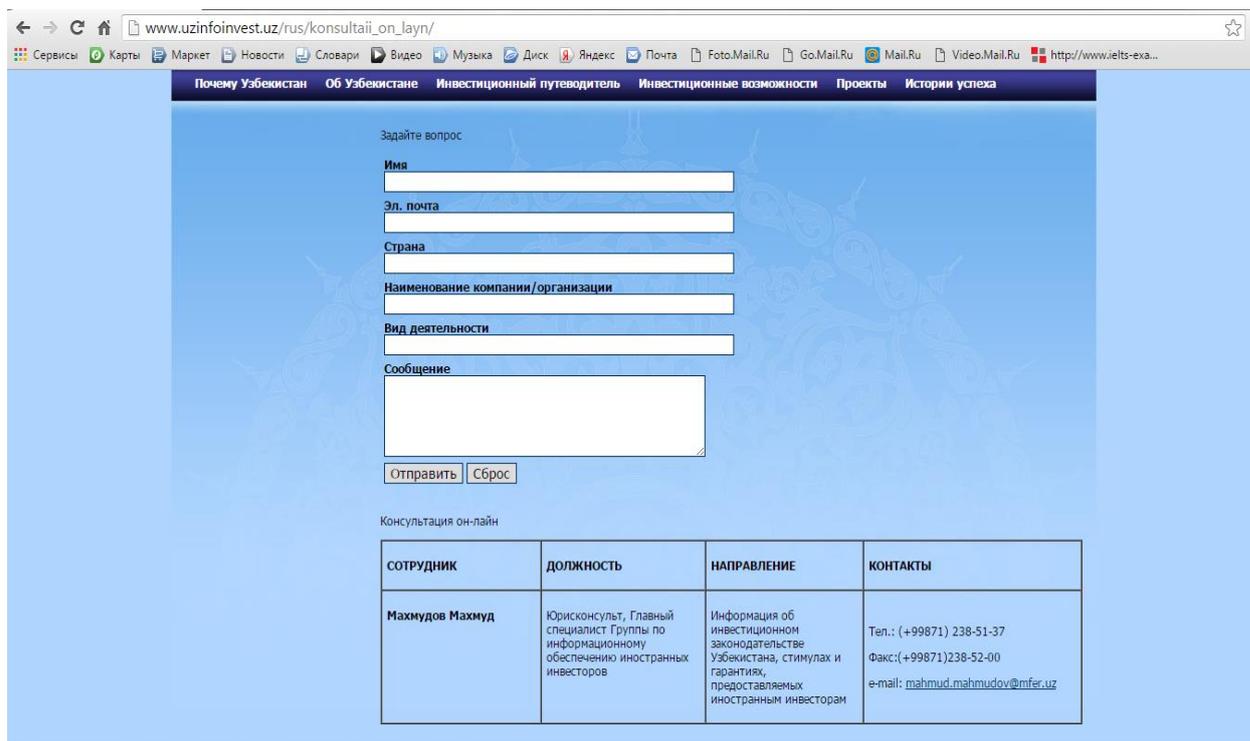
Special value of development of the investment website is caused by need of development of regions, attraction of investments and establishing interaction of authorities with investors.

In the Republic of Uzbekistan exists several interactive services for an inestor on the portal the Electronic government which aren't including consultation, and also distinguishing duration of obtaining the answer. And also there is a website [www.uzinfoinvest.uz](http://www.uzinfoinvest.uz) in which there is no information on the sphere of ICT. Also on the website there are no necessary data for an assessment of appeal of the investment project to the investor. Consultation is online presented in the form of a form of filling of the letter (Fig. 6).

In this connection there is a need of development of the inversion portal for the sphere of ICT (Fig..7).

Ensuring evident representation of investment opportunities of the subject of ICT:

- Ensuring representation of Investment strategy.
- Ensuring representation of infrastructure.



**Fig.6. Consultation page of the website www.uzinfoinvest.uz \***

\* URL: <http://www.uzinfoinvest.uz/>

If to consider the matter on the example of JSC «Uzbektelecom», then it is possible to define complexity of providing information to investors in the sphere of ICT (the 2nd chapter of this thesis). Ensuring representation of the potential directions of investments.

- Ensuring collecting and expeditious consideration of complaints and addresses of investors.

The structure Internet портала для spheres of ICT has to allow to form vision about an investment situation and investment opportunities of the region in this sphere.

The main web pages and information which have to contain in investment I potrat:

1. Homepage.
2. News.

### 3. About the region.

- Information on social and economic development of the region, investment climate, administrative-territorial division, manpower, natural resources;
- Structure of public authorities.



**Fig. 7. Approximate interface of the investment portal \***

\*Made by the author

### 4. Support of investment activity.

- Investment philosophy of the region;

- Investment strategy and investment declaration of the region;
- Investment ratings of the region;
- Presentation materials about the region and the given investment opportunities;
- The description of measures of support of investments and investment projects and an address order for their receiving;
- Investment legislation;
- Reports and plans of activity of the specialized organizations for attraction of investments and work with investors;
- Regulations of interaction of investors with officials;
- The description of investment process which is well opening the main steps on realization of investment process in the territory of the region.
- Online consultation.

#### 5. Investment projects and investment platforms

- Investment map of the region
- Plan of creation of investment objects and objects of transport, engineering, social and other infrastructure;
- The investment projects realized now;
- Successful experience of implementation of investment projects in the territory of the region;
- Information on the investment projects planned to realization;
- The register of the investment platforms located in the territory of the region.
- Form of the offer of the investment project.
- Preliminary investment calculations.

#### 6. Feedback

- The line of direct addresses providing a possibility of expeditious collecting and consideration of complaints and offers.

It is possible to mark out the following advantages at development and deployment of the investment portal:

1. The developed Internet portal provides an opportunity carrying out the analysis of the competitive environment

2. Results of works provide an opportunity for investors, developers, businessmen to online form the offers expressing investment interests of the user.

3. The offered project turns on instruments of cartographical display of cost of connections \resources, indicators of employment of the population, a transport situation (in the presence of integration with the relevant services through a regional geographic information system);

4. Creation of the "investment potentials-investment risks" model gives the chance of definition of the zones optimum for emergence of the investment objects relating to the priority directions of economic activity.

5. Also visual display on the card of the existing and planned objects differentiated with breakdown on realization stages is result of the carried-out work.

Types of the final products when developing the investment portal:

1. Perhaps both creation of the new investment portal completely, and development of separate blocks of the portal

2. Creation of the investment map of the region in the sphere of ICT

3. Data of the plan of creation of investment objects and infrastructure facilities of the region in the sphere of ICT

4. Calculation of parameters of investment platforms for formation of the list of investment platforms

Thus, now for effective development of any sphere, in that chisy and ICT, financial means are necessary. And here an important role is played by investments. With a variety of goods and services, and also fields of activity of the person it became much heavier to attract investors to the investment project. In that case very important that the investor had full and exact information on the project. But as all investment projects can be considered at the international level, information also has to be available at the international level. For simplification of access to information the special tool – the investment portal which is implemented

by means of Internet technologies is used. This portal allows to provide with reliable and timely information of all participants of investment projects and to attract new investments into the sphere or region.

### 3. Introduction of the comprehensive program to attract investments in the ICT sector

Development and broad use of information and communication technologies in the last decades became a global tendency of world progress. In the modern dynamically developing world of ICT carry out a role of the engine of all economy, promote attraction to the country of investments, to creation of new jobs, introduction of progressive technologies in production and management, that is finally – to the stable economic growth and increase in the standard of living.

The gap in the level of development of ICT of countries with economies in transition can become an obstacle for the accruing globalization processes today. Thus, development of information and communication technologies is the main direction of development of scientific and technical process and an indicator of development of society and the standard of living in the state.

Therefore the Program of attraction of investments into the sphere of ICT has to be carried out at the state level and in connection with these to be considered as the state program.

The state program is the target program of planning of the actions of organizational, production and technological and social character interconnected on periods, directed to achievement of the uniform object set by the state and a solution, balanced on financial, personnel and other resources.

By preparation of the Program key practical aspects of development and implementation of subprogrammes (main components of the Program) shall be defined. The purposes of subprogrammes shall corresponds to Gosprogramma's purposes and to correspond to priorities of state policy in the sphere of implementation of the subprogramme. The formulated tasks of the subprogramme

shall be necessary and sufficient for achievement to the answering purpose. In subprogrammes indices (indicators) which evidently quantitatively characterize progress in achievement of goals or the decision of the task of the subprogramme shall be used and envelop all essential aspects. It is necessary to give reasons for composition and measure values (indicators), and also an impact assessment of external factors and conditions on their achievement.

Indices (indicators) shall have the quantitative values planned by years which satisfy to one of the following conditions:

- is calculated by the techniques accepted by the international organizations and the link to an open source of the publication of an index;
- is defined proceeding from data of the state statistical observation;
- is calculated on the basis of data of the state statistical observation on a certain technique (formula).

For use for the purpose of monitoring reporting data shall be provided at least 1 time a year.

Characteristic of the main actions:

1) The characteristic of the main actions of the subprogramme shall contain data on period, the performer, the expected direct result of their implementation, correlation with subprogramme indices;

2) The set of the main actions of the subprogramme shall be necessary and sufficient for achievement of the objectives and the decision of tasks of the subprogramme taking into account implementation of the measures of the state and legal regulation provided within the subprogramme;

3) When forming a set of the main actions it is necessary to provide separation of the control events of the state program within their implementation allowing to evaluate the intermediate or final outputs of execution of the main actions within a year;

4) Names of the main actions can't duplicate names of the purposes and tasks of the subprogramme;

5) The main actions need to be created taking into account a possibility of reflection of their names in target items of expenditure of the federal budget.

Risk analysis:

1) Risk analysis of implementation of the subprogramme and the description of measures of risk management of implementation of the subprogramme provides

- identification of risk factors on sources of origin and the nature of influence on the course and results of implementation of the subprogramme;

- quality and quantitative standard of factors of risks;

- reasons for sentences on measures of risk management of implementation of the subprogramme.

2) As a part of reasons for sentences on measures of risk management of implementation of the subprogramme are brought:

- the measures of legal regulation directed to minimization of a negative impact of risks (external factors)

- the actions of subprogrammes directed to risk management, their timely detection and minimization

- the actions for control of implementation of the subprogramme directed to timely detection, monitoring and an impact assessment of risks and external factors, and also development and implementation of measures for minimization of their negative impact on implementation of the state program.

By development of the State program the Passport which in essence is the short description of the program where the main aspects of the Program are selected is created.

For evident representation of implementation and implementation of Program to attract investments in the ICT sector in the table-5 the preliminary Passport of the Program is submitted for consideration.

**Passport of the Program to attract investments in the ICT sector \***

<b>Name of the program</b>	The program to attract investments in the information and communication technologies sector of the Republic of Uzbekistan
<b>Bases of the program development</b>	Regulatory and legal framework of the Republic of Uzbekistan in the field of information and communication technologies and investments
<b>Responsible for the implementation of the program</b>	Ministry for the Development of Information Technologies of Communications of the Republic of Uzbekistan
<b>The main developers of the program</b>	Cabinet of Ministers of the Republic of Uzbekistan
<b>Participants of the program</b>	Ministry of Foreign Affairs Ministry of Finance Ministry of Economics Ministry of Agriculture and Water Resources Ministry of Labor and Social Protection of Population Ministry of Higher and Secondary Special Education Ministry of Public Education Ministry of Health Ministry of Culture and Sports Ministry of Defence

	<p>Ministry of Internal Affairs</p> <p>Ministry of Emergency Situations</p> <p>Ministry of Justice</p> <p>Ministry of Foreign Economic Relations, Investments and Trade</p> <p>State Committee on Statistics</p> <p>State Committee for Management of State Property and Support of Entrepreneurship</p> <p>The Uzbek Agency for Standardization, Metrology and Certification</p>
<b>Aim of the program</b>	<p>Creation of favorable conditions for attracting investments in the sphere of information and communication technologies of the Republic of Uzbekistan, as well as improvement of the sphere and its integration with other spheres of activity</p>
<b>Tasks of the program</b>	<ol style="list-style-type: none"> <li>1. Improvement of the regulatory and legal framework in the field of attracting investments in the ICT sector of the Republic of Uzbekistan</li> <li>2. Modernization of the structure of the ICT administrative body for the implementation of the investment process in all spheres of technology</li> <li>3. Facilitating the finding of necessary information by investors by creating modern tools - an investment portal for</li> </ol>

	<p>ICT sector</p> <p>4. Application of the scientific basis for the practical development of ICT processes and the maintenance of innovative ICT development of youth</p> <p>5. Assessment of the social impact of investment projects in the field of ICT and preferential support of these projects</p> <p>6. Increasing the scope of ICT in the annual investment program of the Republic of Uzbekistan</p>
<b>Stages and Terms of the program implementation</b>	<p><b>Stage 1</b> - 2017 - 2018,</p> <p><b>Stage 2</b> - 2018 – 2021</p>
<b>Expected results</b>	<p>1. The established legislative framework in the field of investment in ICT</p> <p>2. An effective mechanism for managing the integration of ICT in different areas of activity</p> <p>3. Favorable conditions for the use of the investment portal in the field of ICT</p> <p>4. Establishment of a technopark and / or business incubator in the field of ICT at the Tashkent University of Information Technologies</p> <p>5. Introducing a new method for evaluating investment projects and increasing their attractiveness for</p>

	investors 6. Broad development of ICT projects
<b>Program management</b>	Cabinet of Ministers of the Republic of Uzbekistan
<b>The amount and sources of funding for the program</b>	Defined according to state budget
<b>Examination system</b>	The developed indicators for determining the progress of the implementation of the Program
<b>Control system</b>	Annually presented report on the work done and further plan and stages of the Program implementation

\* Made by the author

According to this Program Passport, responsible executors, participants and control bodies of the Program are identified. The goals and objectives of the Program being implemented, as well as the stages and timeframes for implementation, expected results, the system of expertise and control are presented.

### Conclusions to chapter 3

On the third chapter "Development of the program to attract investments in the ICT sector" the following conclusions were made:

1. The main proposals for attracting investments in the field of ICT have been identified, namely: improvement of the legislative framework in the sphere of investing in ICT, making proposals to the organizational structure of the Ministry for the Development of Information and Communication Technologies, improving e-government in the field of investing in ICT, And a business incubator, a proposal for the development of an investment portal.

2. The structure and implementation of the investment portal is considered in detail.

3. The proposal is summarized and aspects of the development of the program for attracting investments into the ICT sphere of the Republic of Uzbekistan are described.

4. The Passport of the Program to attract investments in the ICT sector of the Republic of Uzbekistan is presented.

## CONCLUSION

In dissertation operation the topical issues connected to investment process are provided. The main problems connected to attraction of investments into the sphere of information and communication technologies are considered namely:

- 1) technological inequality of different regions and population;
- 2) complexity of an assessment of attractiveness of information and communication technologies;
- 3) the accelerated development of information and communication technologies and the fast-changing requirements of the market;
- 4) expanded directivity of information and communication technologies;
- 5) broad application of information and communication technologies in all fields of activity of the person.

If to consider investment activities in the sphere of ICT of the Republic of Uzbekistan, then it is possible to select the following main problems:

- 1) imperfection of a normative and legal basis;
- 2) complexity of finding of information by investors;
- 3) absence of a scientific basis of practical development of ICT of processes and maintenance of innovative ICT of development of youth;
- 4) small spanning of the sphere of ICT in the annual investment program of the Republic of Uzbekistan.
- 5) complexity of an assessment of attractiveness of information and communication technologies.
- 6) an assessment of investment projects only from economic indices.
- 7) the accelerated development of information and communication technologies and the fast-changing requirements of the market;
- 8) expanded directivity of information and communication technologies (equipment, software, information platforms, cloudy data, information systems, etc.);
- 9) broad application of information and communication technologies in all fields of activity of the person (medicine, architecture, education, etc.).

The major factors influencing efficiency of investments in the sphere at the macrolevel, microlevel and at the level of the enterprise are considered. The interrelation between efficiency of investments and investment appeal is given.

Definite purpose of development of the program of attraction of investments into the sphere of ICT. The purpose of development of the program of attraction of investments in the sphere of ICT follows from the informatization purpose in the country.

The concept of a method of financing of the investment project as which understand a way of attraction of investment resources for ensuring financial feasibility of the project is defined.

The main methods of financing of investment projects are: self-financing, incorporating, and also other forms of participation financing; credit financing (investment credits of banks, issue of bonds); financial rent (leasing); budgetary financing; the mixed financing (on the basis of various combinations of these ways); project financing.

Each method of financing has both the advantages, and the shortcomings. Therefore when planning financing it is necessary to develop the optimum scheme for the subject. The comparative analysis of methods of financing is provided in dissertation work.

The scheme of financing has to provide:

- the sufficient volume of investment for implementation of the investment project in general and on each step of the settlement period;
- optimization of structure of sources of financing of investments;
- decrease in capital expenditure and risk of the investment project.

The effect of implementation of the project can be expressed in several options: economic and social.

Few attention is paid to social effect of the investment project now that is especially important in the sphere of information and communication technologies.

The main economic valuation methods of attraction investitsiy: netpresentvalue (NPV), InternalRateofReturn (IRR), Payback - period

of return of investments, Information Economics (IE) - information economy, Portfolio Management (PM) – portfolio management of assets, IT Scorecard - system of indices of IT, Real Options Valuation (ROV) - the fair price of options, Applied Information Economics (AIE) - application-oriented information economy.

All methods of determination of economic efficiency have certain shortcomings therefore uses of one of methods can how not to yield result at all, and, having yielded any result, to lead to erratic administrative decisions. Thus, need of use of a complex of methods is obvious.

The valuation method of social effect of the investment project is provided.

Investment activities of JSC Uzbektelecom are considered. The main sources of means for implementation of investment projects according to data of JSC Uzbektelecom are revealed:

- own means of JSC Uzbektelecom;
- credits of the international banks;
- credits of Alokabank and other banks of the Republic of Uzbekistan;
- investments of the international companies.

According to a research of investment appeal of JSC Uzbektelecom for 2011-2015 it is possible to draw a conclusion that the company on average is investment attractive the companies thanks to an indicator of EBITDA which shows reliability of return of investments of investments. Also appeal for this period is influenced by average increase in other financial performance, such as: net proceeds from product sales, prime cost of the sold products, net profit, profitability of activity, OIBDA, investment.

The main offers on attraction of investments into the sphere of ICT are defined, namely: improvement of the legislative base in the sphere of investment into ICT, entering of offers into organizational structure of the Ministry of development of information and communication technologies, improvement of the electronic government in the sphere of investment into ICT, the offer on creation of science and technology park and business incubator, the offer on development of the investment portal, application of an assessment of social effect of the

investment project. The structure and implementation of the investment portal is in detail considered. Synthesis of offers is given and aspects of development of the program to attract investments in the ICT sector of the Republic of Uzbekistan are described.

In dissertation work the Passport of the Program to attract investments in the ICT sector of the Republic of Uzbekistan is submitted.

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