THE MINISTRY FOR DEVELOPMENT OF INFORMATION TECHNOLOGIES AND COMMUNICATIONS OF THE REPUBLIC OF UZBEKISTAN
TASHKENT UNIVERSITY OF INFORMATION TECHNOLIGIES NAMED AFTER MUHAMMAD AL - KHWARIZMI

Allowed to protection

Head of the department

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«____» _____2018 year

TOJIBOYEV FAZLIDDIN XUSNIDDIN O'G'LI

THE DEVELOPMENT OF INNOVATION AND PROJECT FORMATION STRATEGY IN COMPANIES

Graduation work

On a competition of the bachelor degree

Graduate:	_____	Tojiboyev F.X.
Scientific advisor:	_____	Iminova N.A.
Reviewer:	_____	To'rayev Sh.Sh.
Advisor:	_____	Kamalov Y.K.
Advisor on LSE:	_____	Amurova N.Y.

Tashkent – 2018

THE MINISTRY OF DEVELOPMENT OF INFORMATION TECHNOLOGIES AND COMMUNICATIONS OF THE REPUBLIC OF UZBEKISTAN

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Faculty «Economy and management» in ICT sphere

Department of Economics in ICT sphere Direction: 5350300-Economics and management in the sphere of information and communication technologies

ACCEPTED
Head of the department
_____

« ___ »_____ 2018 y.

For graduation work of student Tojiboyev Fazliddin Xusniddin o'g'li on theme "The development of innovation and project formation strategy" in LLC "Universal Mobile Systems"

THE TASK

1. The theme is confirmed by the order on university from December, «1st» 2017y. № 1729

2. Term of delivery of the finished work 31.05.2018 year.

3. The initial data to work: The first president of the Republic of Uzbekistan I.A. Karimov's publishings and proceedings, the head of our country Sh. M. Mirziyayev's initiatives decisions and speeches, the specialized literature, annual reports of LLC "Universal Mobile Systems" for 2015-2017, Orders and other documents of the mobile company.

4. The maintenance is settlement-explanatory note (the list of subjects to working out of questions) Introduction; theoretical and practical issues of economic notions, communication in telecommunication, analyzing lacks and problems and arranging new innovations of effectively running the LLC "Universal Mobile Systems", proposals for improving economic effectiveness of communication system in the LLC "Universal Mobile Systems"; Life safety in the ecology; the Conclusion; the list of used literature.

5. The list of a graphic material: the Distributing material, presentation on Microsoft Power Point.

6. Date of delivery of the task 20.12.2017

Supervisor _____ Accepted the task _____

7. Advisers for separate sections of final qualifying work

The name of section	Advisor	Signature, date	
		Given the task	Received the task
I	Kamalov Y.K.	20.01.2018	20.01.2018.
II	Kamalov Y.K.	20.02.2018	20.02.2018
III	Kamalov Y.K.	20.03.2018	16.03.2018
IV	Amurova N.Y.	20.04.2018	20.04.2018

8. The schedule of performance of work

№	The name of section	Date of performance	Signature of the supervisor (advisor)
I	Theoretical basis of innovation, the essence of innovation and its development in the innovative economy and project formation strategy	20.02.2018	
II	Analyzing and estimating of the innovative approaches of LLC "Universal Mobile Systems"	18.03.2018	
III	The Primary way of determining recommendations and suggestions of achieving economic efficiency by implementing innovations in LLC "Universal Mobile Systems"	19.04.2018	
IV	Life safety in the ecology	30.05.2018	

Accomplished by _____ 30 May 2018 y.

Scientific advisor _____ 30 May 2018y.

АННОТАЦИЯ

Битирув малакавий ишининг мақсади телекоммуникация соҳасида инновацион фаолиятни тадқиқ қилиш, ушбу жараёнларни бошқариш, чет эл телекоммуникация компанияларининг амалий тажрибаси асосида янги инноватив услубиётларини ишлаб чиқиш ва уларни маҳаллий компанияларда қўллашдан иборат.

Ишнинг сўнгида самарали инновацион ғояларни коммуникация сохасига қуллаш усуллари тавсия қилинган.

АННОТАЦИЯ

Целью выпускной работы является исследование инновационной деятельности в сфере телекоммуникаций, управление этим процессом, создание новых методов на основе зарубежного опыта в сфере телекоммуникационных компаний и их применение к местным компаниям в Узбекистане.

По завершении работы предоставляются рекомендации по созданию эффективных инновационных идей и предложении.

ANNOTATION

The purpose of graduation work is researching an innovation activity in telecommunication sphere, managing this process, creating new methods on the basis of foreign experience in the sphere of telecommunication companies and applying them to local companies in Uzbekistan.

At the end of the work the recommendations of creating effective innovative ideas and recommendations are provided.

REVIEW

on final qualifying work of the student Tojiboyev Fazliddin Xusniddin o'g'li on the topic of the development of innovation and project formation strategy in LLC "Universal Mobile Systems (Развитие инновации, стратегия формирования проекта в предприятиях)

The strategy of economic reform unfolding in our country presupposes a comprehensive development of new economic relations in all parts of the economy, the formation of a flexible and adaptive management system and the creation of the conditions necessary for effective business activity.

One of the main components of such a system is innovation. The development of innovative activities helps to clarify the mechanisms for mutually beneficial implementation of new technologies and improve economic profitability, create conditions for identifying the requirements of consumers and determining the possibilities for their satisfaction. All this involves studying the market for services and forecasting its dynamics, shaping the demand for services and stimulating their distribution.

The first chapter of the WRC is devoted to the study of the essence and significance of innovation and the strategy of project formation, as well as theoretical skills of innovation in the post - industrial economy.

The second chapter analyzed the state of marketing activities; current state and financial activities of OOO "Universal Mobile Systems"

The third chapter proposes recommendations for the development of innovative approach methods and shows ways of improvement in communication enterprises.

Structurally and compositionally, the final qualifying work is framed competently. Graduation qualification work is performed in accordance with the requirements set by the HES in a logical sequence.

The disadvantage of the work is the first chapter loaded a lot of information. But in general, this WRC meets all the requirements of the HES, and deserves an excellent evaluation, and the author is awarded a bachelor's degree.

Department of controlling
Innovation development
and projects realization
of JSC “Uzbektelekom” **Kamalov Y.K.**

INTRODUCTION

Validity and actuality of the topic of graduation work. The 21-century demands for innovation ideas and new approaches in each sphere of economics. Thereafter, in order to growth the efficiency and productivity of enterprises, governmental departments and other institutional branches of economics, innovative decisions should be considered and implemented accordingly. It is glaring evidence from world practice that new approaches in terms of innovations can lead to well-being of companies and countries wholly as well.

Innovative approaches are becoming more and more vital for the economics of The Republic of Uzbekistan. As the head of our country claim that without a new thought, idea and innovation, we will not achieve anything in the future, everyone should understand this, the president said.[1]

One of the main factors affecting scientific and technical progress in all spheres and growing economic efficiency and productivity of small-medium enterprises, governmental organizations, manufacturing and services is implementation new approaches such as scientific-technological innovations and innovative views. The role of innovation is highly demanding in any kind of spheres day by day around the world, it is regarded with qualitative and reliable products and services which are becoming more important among individuals and legal entities. Undoubtedly, market economy needs new commodities, services and creation new approaches of manufacturing, supplying goods and services, enhancing efficiency of management, all in all, innovations can lead to economic growth at the level of private and governmental companies. 2018-year has been declared as the Year of Active Entrepreneurship, Innovative Ideas and Technologies. It is glaring evidence that actuality of this theme is vital for further development of economic potentials of the Republic of Uzbekistan as a whole.

[1] Mirziyoyev Sh. M. Message to the parliament devoted to the results of socio-economic, political and democratic development of the country in 2017 and priority directions of social and economic development of the Republic of Uzbekistan in 2018.

The aim and task of the research. The aim of the research is development of recommendations and implementation innovations throughout the observation of the prime ways of achieving economic effectiveness in the LLC “UNIVERSAL MOBILE SYSTEMS” by the introduction of information and communication technologies. To achieve the aim, the following tasks are formulated:

- To learn the essence of innovations in contemporary economy;
- To learn the crucial features of functioning of innovations;
- To determine the foreign experience in have the usage of innovative ideas with further implementing them in enterprises;
- Analyzing contemporary practice of organization of innovation activity in LLC “UMS”;
- Evaluation innovation potential of enterprise;
- Generalization of practice experience and identifying problems of innovation development management in enterprise;
- Formation recommendations for enhancing innovation activity in enterprise.

The object and subject of the research. The object of the research is the LLC “UNIVERSAL MOBILE SYSTEMS” telecommunication company. The methods and approaches of accomplishing economic effectiveness and growth in the sphere of mobile company are the subject of the research.

The content of the work**.** The first chapter of the GW is devoted to the study of the essence and significance of innovation and the strategy of project formation, as well as theoretical skills of innovation in the post - industrial economy.

The second chapter analyzed the state of marketing activities; current state and financial activities of OOO "Universal Mobile Systems"

The third chapter proposes recommendations for the development of innovative approach methods and shows ways of improvement in communication enterprises.

In chapter IV – “Life safety in the ecology” Psychophysiological stress on employee, briefly about monotony and hypodinamy and ecology of cities in the example LLC “Universal Mobile Systems”.

In conclusion, the main conclusions and results of the work are provided and recommendations are given.

I. THEORETICAL BASIS OF INNOVATION THE ESSENSE OF INNOVATION AND ITS DEVELOPMENT IN THE INNOVATIVE ECONOMY AND PROJECT FORMATION STRATEGY

1.1. The concept and essence of innovation in a post-industrial society

Innovation distinguishes between a leader and a follower.

Steve Jobs.

Innovation (from lat. innovation - update) is the transformation (transformation) of creative results of labor into new products, technologies or services used in practical activities and ensuring the growth of competitiveness.

By the end of XX century it became obvious that the industrial state is disappearing into the past, it is replaced by a fundamentally new one, which was called post-industrial. However, the prefix "post" does not disclose the content of changes in the economy, the main difference from completing its life cycle of industrial civilization and the transition to an innovative development path.

Scientists who conducted research in the field of economic growth came to the conclusion that throughout the entire development of mankind the driving force of economic growth was innovation. Thus, for example, A. Smith argued that the organizational mechanism of capitalism is not only a market system (the supply-demand ratio), but also a competition that makes not only satisfy ever-increasing needs through lowering prices and improving quality, but also making it the most effective way by means of transition to new technologies, i.e. with the help of innovations[2] This posture over time has acquired a wider significance and, perhaps, more important. Important here is that today in free markets, companies use innovations as an effective factor in the process of fighting for the consumer.

The notion of "innovation" is based on the theory of the innovative way of economic development. Despite the fact that innovation practice has existed for many millennia, the subject of a special scientific study of innovation was only in the XX century.

[2] Smith A. Research on the nature and causes of the wealth of peoples. - M Exmo, 2007 - (Series: Anthology of Economic Thought) - 960 p.

In the formation and development of the theory of innovation, according to Yu.V. Yakovets, three important stages can be distinguished:

- the first third of the XX century. - the formation of the fundamental foundations of the theory (the period of basic innovations in this field of scientific knowledge);
- the second third of the XX century. development of the details of the basic innovative ideas of the previous period;
- since the mid-70's. XX century. - a new theoretical breakthrough, connected with a wave of epochal and basic innovations in the period of the formation of a post-industrial society ".[3]

The founder of the theory of innovation is the distinguished Austrian economist J. Schumpeter, who, at the beginning of the 20th century, laid the foundations of modern innovation development. J. Schumpeter's main scientific work The “Theory of Economic Development” [4] was published in 1911. J. Schumpeter introduced the term innovation itself, concentrating on economic innovations and appreciating the role of the innovator entrepreneur in economic progress. In his opinion, the role of entrepreneurs is to reform or revolutionize production, using inventions to produce new products or produce old ones in a newer way, opening up new sources of raw materials and new markets, reorganizing the industry, etc.

I. Schumpeter also for the first time divided the concepts of "invention" and "innovation". According to I. Schumpeter, innovations include:

- new product or product with new useful quality;
- a new production method that can be of a production nature, management, marketing or commercial type associated with product sales. Under this definition, all new technologies fall, which increase the efficiency of the movement of goods from the producer to the buyer. And in a broad definition from the idea to the product and its customers;

[3] Яковец Ю.В. Эпохальные инновации XXI века. - М. Экономика, 2004.
[4] Schumpeter J. The theory of economic development. -M: Progress, 1982. -401 p

- new markets;
- a new source of factors of production;
- is a new type of organization.

Analyzing the work of J. Schumpeter, we can conclude that due to the entrepreneur innovator, the economy is undergoing dynamic changes.

While innovations in their classical understanding have always determined and accelerated the development of industry and the economy, the term innovative economy has become widespread since the 1990s.

Innovative is an economy capable of generating and effectively using any innovations that are useful to the society (patents, licenses, know-how, borrowed and own new technologies, etc.). The innovative economy includes an innovative infrastructure system that facilitates the realization of the ideas of scientists in practice and their embodiment in innovative products.

An innovative economy is often associated with a postindustrial society. The term "postindustrial society" was introduced into scientific circulation in 1958 by the American sociologist D. Riesman.[5] However, the priority in the development of the theory of postindustrial society belongs to the professor of sociology at Columbia and Harvard University D. Bella D. Bell argued that in "postindustrial society, the center of gravity moves in the sphere of services and the sources of innovation are concentrated in intellectual institutions, mainly in universities and research institutions, and not in the former industrial corporations ".[6]

A new stage in the development of the concept of post industrialism is associated with the release in 1973 of D. Bell's book "The Coming Post-Industrial Society"[7] in which he gave a detailed definition of post industrialism: "The post-industrial society is defined as a society in whose economy the priority shifted from the primary production of goods to the production of services, conducting research, organizing the education system and improving the quality of life; in

[5] Riesman D. Leisure and Work in Post-Industrial Society // Mass Leisure Eds. E. Larrabee, R. Meversohn. Glencoe (111), 1958 P 363-385

[6] Bell D. The Year 2000 - The Trajectory of an Idea Toward the Year 2000. Work in Progress Ed. by D. Bell. Boston, 1968, p. 5-6.

[7] Bell D. The future post-industrial society. Experience of social forecasting. - M. 1999. - 956 p.

which the class of technical specialists became the main professional group and, most importantly, in which the introduction of innovations increasingly began to depend on the achievements of theoretical knowledge".[8]

In recent years in the scientific community, a fundamentally new direction in the development of the economy has been actively discussed, which has been called the knowledge economy. The term "knowledge economy" (or "knowledge-based economy") was introduced by the American economist F. Mahlop in 1962. In his work "Production and dissemination of knowledge in the United States," he estimated that in 1958 the knowledge economy sector contributed about 29% in the US GNP. In this sector F. Mahlop included the following activities, which were grouped into five groups:

- education;
- scientific research and development;
- mass media (radio, television, telephone, etc.);
- information technology;
- information services.[9]

Thus, the knowledge economy is understood to be a model of the economy in which knowledge becomes the main factor of the country's development, its most valuable and strategically important resource. The process of formation of the knowledge economy has already begun to be practically implemented, in spite of the fact that many more theoretical provisions of the new direction remain unclear and require further elaboration. Nevertheless, in the economic development strategy of a number of countries in the world community, the knowledge economy begins to occupy an increasing and greater place. And today there is no doubt that it will determine the further development of civilization in the 21st century, the distinctive features of which are the growing processes of globalization and the formation of a global information society. And these features,

[8] Bell D. The future post-industrial society. Experience of social forecasting. - M. 1999. - 321 p.
[9] Mahlup F. Production and dissemination of knowledge in the US Ed. EI Rosenthal; Trans. with English. - M Progress, 1966. -462 p.

of course, leave their imprint on all other processes of social and economic development of society.

The knowledge economy is closely connected with the process of informatization of society, therefore the highest and next stage and way of innovative economy is the knowledge economy or information society, which gives grounds to call it the innovation-information economy. In the international interdisciplinary dictionary on globalistics, the term "knowledge economy" is defined as follows: "The knowledge economy is a type of economy in which a significant part of the gross national product (GNP) is created in industries directly generating new knowledge, information goods and services, and equipment for transmission and processing of knowledge "[10] It is emphasized that the growth of the knowledge economy is promoted by the exponential growth of the population's demand for new types of services provided by means of information communication technology (ICT).

The emergence of the innovation-information economy is a social transformation that has affected various aspects of human activity.

In general, social transformation is a fairly long process, the periodization of which can be represented in the form of successive replacement of large complexes of technologically coupled industries - technological structures (TS).

Each such way represents a holistic and sustainable education, within which a reproduction cycle is carried out, including extraction and production of primary resources, all stages of their processing, and a set of end products that satisfy the appropriate type of public consumption. The life cycle of the technological structure covers about a century, while the period of its domination in the development of the economy is about 40 years (as the NTP accelerates and the duration of scientific and production cycles decreases, this period is gradually reduced).[11]

[10] Глобалистика. Международный междисциплинарный энциклопедический словарь. - М. Санкт-Петербург. Информационный центр «Элима», Издательский дом «Петр». 2006. - 1160 с.
[11] Glazyev S.Yu. Strategy of advanced development of innovations in the conditions of global crisis. - M. The Economy, 2010.-255 p.

To date, in the world technical and economic development (beginning with the industrial revolution of the 18th century), it is possible to single out the life cycles of five successive technological processes, including the informational technological structure that dominates the structure of the modern economy.

Table 1

Periodization and characteristics of technological structures

Number of wave, TS	Term of coverage (years)	Industries on which the TS is based	Advantage of TS
First	1770-1830	Textile industry. Textile engineering.	Mechanization and concentration of production in factories
Second	1830-1880	Railway transport, mechanization of production, machine-tool building, shipbuilding.	Growth of scale and concentration of production based on the use of a steam engine
Third	1880-1930	Heavy engineering, electrical and chemical industry	Increased flexibility production at basis of use electric motor standardization production, urbanization
Fourth	1930-1970	Gas and oil power engineering, automotive, aircraft building, new materials, electronics	Mass production and serial production
Fifth	1970-still	Microelectronics and Informatics, Biotechnology and Genetic Engineering. Space Industry	Individualization of production and consumption, increased flexibility of production

Source: compiled by the author on the basis of Glazyev S.Yu. The economic theory of technical development Ed. D.S. Lviv. - Moscow: New publishing house, 2008. - 235 p.

Today, a reproductive system of the new, sixth technological order is being formed, the formation and growth of which will determine global economic development in the next two to three decades.[12]

Each regular way of economy was connected with the corresponding stage of development of human capital and with its new high quality. First of all, in education, in science and in innovation.

The first industrial revolution and the first technological order (1770-1830) coincide in time. This breakthrough in the development of the world economy occurred on the basis of the rapid growth of the productive forces and the emergence of capitalism. The industrial revolution was scientifically based on the development and achievements of mathematics, mechanics, physics, chemistry, and economic science. On the basis of the largest innovations, the textile industry and mechanical engineering were created and developed.

As a result, in the first half of the XIX century an industrial economy was formed. At this stage, the following qualitative changes occurred in human society:

- accumulation and implementation of knowledge and innovations in practice (in industry);
- industrialization - the mechanization of production, the transition from manual labor to machinery, from manufactory to factory;
- there were competitive relations and markets;
- the quality of life of the population has improved; culture, education, science developed and the base for the next round of accelerated economic growth, the development of industry and technology was gradually being prepared;
- there was a faster development of human capital due to an increase in investment in it. increase in knowledge, improve vocational education, the specialization of scientific research and the growth of the quantity and quality of scientific organizations.

[12] Nanotechnology as a key factor in the new technological order in the economy, monograph Ed. Glazyeva S.Yu. Kharitonova V.V. - M. . Trovant. 2009. - 304 p.

The second industrial revolution (the last third of the 19th century beginning of the 20th century) was accomplished on the basis of a new round of quality growth and the level of accumulated human capital. The professional education has deepened and accepted the mass character, science developed and specialized. The second industrial revolution based on the development of human capital formed the second, third and fourth technological structures of the economy, created a developed industrial society with high labor productivity, generated a mass generation of innovations that continuously increased labor productivity. On the basis of scientific research, the knowledge industry was born.

The third scientific and technological revolution began in the mid-20th century. and continues to this day. She continued to form the fourth and formed the fifth technological structure of the economy, implemented the transition of developed countries to the post-industrial economy. The formation of knowledge and the information society in the advanced countries of the economy has begun. Globalization of the world economy is taking place. The knowledge industry has been created, which has become the leading branch of the economy.

The formation and development of the knowledge economy is largely determined by the level of development and dissemination of new ICT. Therefore, it should be expected that the creation of new generations of these technologies, the emergence of which can be predicted for the coming years, will not only impart new impulses to the development of the knowledge economy, but will also cause large changes in many spheres of society's life associated with the acquisition, storage, presentation and dissemination of knowledge.

Creation of new knowledge and technologies and their use in the interests of social and economic development of the state determine the role and place of the country in the world community, and the level of ensuring national security. In developed countries 80-95% of GDP growth falls to the share of new knowledge

embodied in technology and technology, i.e. in these countries an innovative economy is developing[13]

The main features of the innovative economy are:

- availability of modern information technologies and computerized systems;
- availability of a developed infrastructure ensuring the creation of national information resources;
- accelerated automation and computerization of all spheres and industries of production and management;
- creation and operative introduction in practice of innovations of various functional purpose:
- availability of a flexible system of advanced training and retraining of qualified specialists.

The main objectives of innovation are to minimize the cost of production and improve the quality of technological, organizational and personnel decisions. When implementing a highly efficient new technology, the most important are the following results:

- reduction of the share of manual labor and improvement of working conditions;
- ensuring a continuous and stable production process, reducing non-production time;
- reduction of labor intensity and material consumption per unit of production;
- increase of efficiency of equipment use;
- diffusion of innovation to other enterprises on a commercial basis.

A knowledge-based economy can be characterized in two ways. First, from the entrance side, that is, on the basis of an estimation of the total amount of expenditures (total investments) for the development of its basic sector, in which

[13] Innovative development: Economics, intellectual resources, knowledge management under total. Ed. B.Z. Milner - VI. INFRA-E 2010. - 624 p.

new knowledge is generated and disseminated (education and R & D research and development); second, from the exit side, i.e. assessing the contribution of the gross added value of industries that mostly consume new knowledge: from the so-called high-tech industries of the highest level or leading high technologies, including also the branches of the defense industry, to high-tech middle and high-tech services. With the expanded interpretation of the demand-side sector for new knowledge and technology, education and health care, and sometimes culture and management, are additionally taken into account.

The place of any country in the world technological space is determined by two sets of indicators: intensity (parameters at the input) and yields (effectiveness and competitiveness).

The entire world market of high-tech products is conventionally divided into 50 macro-technologies. The US controls the world market for 22 macro technologies, Germany - 11, Japan – 7 and other countries – 10.

Practice has shown that the level of development of the innovation sphere (science, technology, knowledge-intensive industries) creates the basis for sustainable economic growth, defines the boundaries between rich and poor countries. Therefore, the formation of national innovation systems (NIS) is the main factor in the long-term growth of the world economy. NIS is a collection of public and private organizations (enterprises) that conduct research and development, production and marketing of high-tech products, as well as management and sources of financing.

Note that the conditions for the successful operation of NIS, in addition to the availability of advanced science and education, are:

- competitive business sector in the form of large corporations;
- the priority of state policy in the development of education, science and technology, the creation of favorable institutional conditions for innovative growth;
- integration into the global innovation sphere in the technologically advanced countries, the main organizational form is corporations, in which creative institutions (enterprises) play a leading role, producing valuable knowledge and

information resources to meet the political, economic, scientific and cultural needs of the state. There is a formation of a new production, in which science becomes its function, giving it a knowledge-intensive character.

The development of new information technologies expands the process of internationalization of economic activity. Currently, this activity, known as economic globalization, covers virtually all regions of the world.

The following basic features are inherent in an innovative economy:

- high quality of human capital;
- high level of development of education and science;
- high level of competitiveness of the economy;
- high quality of life;
- high share of innovative enterprises (over 60-80%) and innovative products;
- substitution in the national wealth of natural and physical capital by human capital;
- high demand for innovation;
- redundancy of innovations and, as a result, ensuring the efficiency of some of them through competition.

Thus, based on the developed theory of innovative development, it becomes clear that at the present time, the basis for the progress of the economy is not just innovations, but fundamental science as one of the strategic components of the development of the entire society at all levels and the ability to commercialize the results of scientific developments.

1.2. The main stages of the formation of innovation in the modern economy

The following subchapter shows the formation of a new sphere of economic relations, based on the development of intellectual resources, information, knowledge and computer technology, which is usually defined as the innovation and investment economy. Along with the advantages of the formation of such a system is separated into difficulties of its formation in modern conditions.

The trajectory of modern society development focuses on the creation of interaction and purposeful development of all social life processes system. Today fundamental basis for the so-called "innovation and investment economy" creates; there are new mechanisms that require theoretical and methodological substantiation. Current state of the economy is characterized by the following: development of fundamental and applied science, modernization of production base, the introduction and expansion of communication systems, the expansion of the patent system and economic growth due to the increase of the share of knowledge in the economy.

The transition to market relations implies a qualitative change of the mechanism of formation and implementation of state innovation and investment policy. It should contain elements associated with the creation of external and internal environment for the development of enterprises in scientific and technical, innovation; promote competition and restriction of monopolistic activity of large enterprises and companies, what is of particular relevance in the conditions of formation of market relations. The orientation of the control system for the solution of future problems of acceleration of social development requires a single scientific concept, which is based on the improvement of socio-economic efficiency of social production. The implementation is unity of the socio-economic, scientific-technical and innovative investment policy. Analyzing innovation and investment policy from this point of view, we can say that the results to assess the degree of achievement of socio-economic development goals of the society.

But this is only one aspect of innovation and investment, scientific-technical and socio-economic policy. Another aspect of this unity is that of innovation, science and technology have their own laws of development, defined by the inner logic of the knowledge of natural and social phenomena that affect socio-economic development goals of the society. The third aspect relates to the fact that the effective development of science it is necessary to create legal and economic conditions that will foster innovation and investment activity and the smooth introduction of achievements of science and technology in production. Innovative

investment policy specifies the objectives and tasks of social and economic policy, determines its helping the scientific and technical achievements, effective ways and organizational forms of its using.

In the modern economy new knowledge creates and free access to them offers. This feature is a major factor in the competitiveness of all economic agents. The economy is characterized by: an increase in the rate of innovation, shortening life cycles of products, the actualization of the role of learning throughout life, i.e. orientation continuous learning person, and consequently, enterprises and the whole economy are widely used investment in intangible assets. In connection with this new approach in economic theory arose that currently the economy includes not only industrial complex, but the whole mechanism for the establishment and functioning of a system of knowledge. Describing this situation, scholars have resorted to the following concepts: "investment and innovation economy", "economy based on knowledge", "knowledge economy", "information economy," "intellectual economy", "new economy", "innovative economy", "network economy", "digital economy", "the Internet economy", "knowledge intensive economy", "weightless economy" and many others. After reviewing all these concepts, we will adhere to the opinion that this phenomenon fully characterizes one of the widest, which can be regarded as a
distinct term - innovative-investment economy.

Materov I. characterizes an economy thus: "the new economy" may be regarded as a special phenomenon in economic life which reinforced some signs of the modern economy that were previously shown not so bright. You can talk about big changes "new economy" as in the real sector and in the "financial economy".[14] Fedulova L. emphasizes: "in today's economy there are new opportunities to overcome existing constraints in the form of innovation development scenario.[15] The aim of this part is to identify the main reasons for the support and formation of innovative-investment economy in order to justify the preconditions of the

[14] Матеров И. Факторы развития «новой экономики» / И. Матеров // Экономист. -2003. - №2. - С. 3 - 11.
[15] Федулова Л. Инновационный вектор развития отрасли. / Л. Федулова // Экономика. - 2013. - №4. - С. 15-23.

transition to the innovation investment model of development of the national economy.

Innovation and investment, the economy is characterized by the fact that the successful development of the economy is achieved by accumulating a certain level of knowledge and on the basis of them is new ideas that can provide the country and individual enterprises a competitive advantage. From a methodological point of view we note that this trend is reflected in the emergence of new fields and disciplines in the economy, such as marketing ideas, innovation management in the enterprise, staff motivation on creative thinking, school leadership growth, etc. The basis of existence and development of the "new economy" are rightly called knowledge, which is expressed in innovation and basic research. The production is being driven by the acquisition of new knowledge.

One important consideration in addressing the issue of development and formation of innovative-investment economy is improving technology. What is the structure of the economy embedded computer technology and informatization of the society is not talking about the establishment of new economic relations.

Introduction to the economy of computer technology does not increase the performance of the entire system, this innovative investment the economy is reflected on the computerization of the population, and about other changes, therefore, not correct to say that only technology have led to changes in the system of economic relations. The inclusion of computer and information technology in the economic structure gives the following results, which can be traced in the innovation-investment economy:

- is the rapid growth of electronic Commerce and the rapid spread of economic activity in the network;
- constant technological improvement, the high demand for products, quick change stages in the life cycle of goods lead to rapid aging of the product;
- the lack of strict measures to stop violations of the law in the area of patent and copyright;

- comprehensive global firms, the lack of territorial the boundaries of the "new economy";
- the high cost of innovation and fundamental research;
- the need for constant hardware upgrades;
- the speed of printing the information;
- the low marginal costs of production.

Hvesik M. and Sunduk A. emphasize: "the important role of management in the development of the national economy plays a monitoring system, the results and conclusions which form the basis for managerial decision-making".[16]

Innovation and investment the economy is developing in quite specific terms. Trends of globalization in the economy are very widespread, leading to free trade with the free movement of capital and the reduction of income tax. The possibility appears smooth movement of industries between countries to reduce the cost of labor and natural resources. Apply new forms of labor relations; work is carried out through a system of remote offices. The general information society orients to redistribute qualified and mental work. The rapid development of technologies leads to the emergence of technology with more features. Multinational companies in such circumstances, take an active part in global economic processes.

At the national level, it is proposed "to define innovation oriented priority sectors of the economy, to create conditions for enhancing its development. This will give the opportunity to shape the demand for research and development of the real economy and to overcome the mismatch between science and industry".

Describing a new economy, Kotelnikov V. identified three driving forces of innovation and investment in the economy:

- knowledge - intellectual capital has become a strategic factor; a set of concepts that people use for decision making, critical for the company;
- change - continuous, rapid and comprehensive; create uncertainty and reduce predictability;

[16] Хвейк М.А. Управление развитием национальной экономики в контексте глобальных процессов / М. А. Хвеик // Экономика. - 2013. - №3. - С.4-1

- globalization of the scientific and technical development, technology, production, trade, Finance, communications and information led to the discovery of economies, global hyper competition and the business relationships.[17]

Based on the above discussions, we believe we can make a prediction of economy development. The development of all economic sectors, including industry, is only possible through the orientation of the production of knowledge, as high-tech production allows you to save different types of resources. At the same time, computerization and the need for new knowledge to ensure the development of services. These circumstances are pushing society to rapid scientific and technological progress, which, in turn, becomes the basis for the development of all economic processes.

Bubenko P. and Gusev V. claim that " the main problem on the way to creating an innovative economy is the low entrepreneurial activity of national business". They provide the direction for its solution: conceptual, legal, financial and administrative support; infrastructure; special incentives for innovative businesses; knowledge.

On the micro level Goncharov Yu. and Kasich A. offer: ensure effective interaction of science and industry, primarily in the area of information integration, actively engage in cooperation with other countries, subject to the provision of technology transfer.[18]

As for The Republic of Uzbekistan, it has the potential for the development of post-industrial information society and meets the needs of the population in knowledge. In this case, the economy becomes the main driving force for socio - economic development. In such circumstances, are actively innovative processes aimed at the production, acquisition, dissemination and practical application of knowledge.

[17] Котельников В.Ю. Новые бизнес-модели для новой эры быстрых изменений, вызванных инновациями / В.Ю. Котельники. - Москва: Эксмо, 2007. - 96 с

[18] Гончаров Ю.В. Научный потенциал как фактор развития инновационной и инвестиционной системы / Ю.В. Гончаров А. Касич // Экономика. - 2007. - №3. -из. 42 - 51.

Analysis of scientific-technological and innovative activity in industrial enterprises directions of showed that the largest share of design and technological work, less - scientific-research work (SRW), and even less - scientific and technological services.

Thus, the technological and production structure of the economy of Uzbekistan is becoming less effective and more significantly behind developed countries. Required important changes in the whole system of relations between the reproductive interests, that is the first step to eliminate those processes that lead to the suppression of domestic expanded reproduction based on innovation.

The most important models, the basic principles of formation and implementation of innovative investment strategies and structural policy (IIS and SP), in our opinion, can be grouped around the following fundamental approaches:

- a new, intense focus IIS and SP. A new model of innovation and investment and structural transformation is redirecting to the intensive development of the economy on the basis of the most advanced ideas, scientific and technical achievements at the world level, the development of competitive knowledge and technologic types of products and industries that meet the requirements of the future. As international experience shows, the guarantee of socio-economic prosperity, the country's competitiveness and efficiency of the industry in the long term can be active investment policy with the development of science-intensive industries and the development of flawless quality products, high technology, etc;
- national IIS and SP are rod prosperity of the country. Development and private equity, empowerment, entrepreneurship, increase the weight of the state policy in this aspect. The diversity of forms of ownership and organizational-legal forms of management in the conditions of development of market relations create a favorable basis for the innovative activity of the various links that improve the efficiency and competitiveness of different types. Objectively, it becomes necessary skilled coordination initiative by the state that provides the necessary priorities in addressing socio-economic and other tasks;

- radical structural transformation of industry on the basis of the latest scientific and technical achievements. The art of structural policy should be to multilevel promotion of effective structural change in its broadest aspect, aimed at ensuring high competitiveness of the economy;

Our view is the primary global structural changes should be implemented in the following areas:

- strengthening the material-technical base based on the life cycle of major sectors: industry (engineering), computer science;
- expansion of production of critical machinery, equipment, energy, advanced materials and raw materials;
- increased production of non-food consumer goods;
- increase the scientific information and innovative potential and investment;
- increase of export and import capabilities;
- expansion of infrastructure and IIS and SP innovation market;
- the creation of human and educational potential.

A prerequisite for the competitiveness of the country is the dynamism, flexibility and adaptability IIS and SP. This can be facilitated by the introduction of the principle of innovation strategic projects at all stages, covering the stages of research, forecasting, designing and managing the implementation of tasks. In the initial stages of strategy formation multi variance will allow for a more representative competitive selection of the best projects, and the implementation stage -more fully appreciate the benefits of the options and make possible changes in strategic direction, to clarify goals and outcomes, a timely response to the situation that is emerging.

The task of problem-subject principle of construction IIS and SP using a slim system strategic long-term target programs. The central object in the target programs of scientific and technical progress and structural changes must be not the industry or the region in general, and the specific problem and are achieving as a result of this higher level of efficiency and competitiveness.

Using scorecards at the time of study and assessment IIC and SP. They should objectively and comprehensively characterize the source (base) and the final level of scientific-technological and socioeconomic development of the country, compared to the same criteria, design time both within the country and abroad or alternative design options for a prospective period. Science-based system of criteria and indicators should be adopted.

The most common indicators that are recommended for studies of projects, evaluation of performance of public IIS and SP:

- indicators characterizing the state of the country in the world after the implementation of this program;
- volume of production or the development of new products, technologies and share in world total;
- sales innovations in the external market and the share of its sales;
- net profit from the sale of innovations in the external market;
- the competitiveness of innovations in the external market (matching sales price, quality, reliability, durability, ease of consumption, maintenance, etc.) in comparison with the best foreign analogues.

The indicators characterizing the efficiency of the implementation the state target program:

- total volume of investments for implementation of the program;
- average annual volume of introduction of innovations (number, proportion, etc.);
- the average annual savings from reduced production costs for the implementation of the program;
- average annual savings at the consumer during use innovations;
- the volume of capital investments from the consumer;
- return on capital investment, spending on the implementation of the program;
- return on capital investment from the consumer;
- saving the most important material resources;

- increase productivity of staff and solutions commitments to social problems during the implementation of innovations (saving of labor, the creation of new jobs, improvement of working conditions, etc.);
- amount of actual revenues to the state budget (annual average) from the implementation of this program;
- amount of budget funds spent on the implementation of this program;
- profitability of budgetary allocations on the implementation of the program;
- parameters that determine the program's impact on the environmental situation (regarding the pollution of air and water);
- indicators characterizing the economic and political independence of the country.

Additional parameters characterize, for example changing scientific and technological level of products and production, compliance with international requirements of standardization and certification, etc.

Organic combination of indirect methods of market and state regulation of innovative activity. A new model for the formation and implementation of IIS and SP is advisable to base on the formula of regulation and control, covers in the organic unity:

- establishing government priority national objectives using both broad democratic examinations of decisions;
- state prediction of the global parameters of the industry of the country;
- flexible mechanisms of indirect regulation system using market-based instruments and incentives;
- establishment of certain tasks (state, etc.) or the use of certain (strict or liberal) restrictions. Government regulation is, first and foremost, the choice of objectives, priorities and General policy directions and goals of effective scientific-technological and socio-economic development. This is the realization of complex of measures on organizational and regulatory and government financial and resource support of innovative activity of economic entities.

The creation of a new generation of scientific production and management systems that provide seamless, flexible and adaptive to act in the mode of the innovation pipeline. His work should include a synchronous relationship, changeability and effective self repairing elements of organizational structure vertically and horizontally.

Along with the creation of new systems should be implemented by modification of existing organizational and operational structures and management methods IIS by lifting the intermediate links, the decentralization of management, diversification of operations, the empowerment of staff, and the introduction of advanced information technologies.

Democratization of the formation and reorganization of the IIS and SP at all stages and levels. This refers to the creation of favorable conditions for democratic, the widest participation in innovation activities the variety of economic systems, legal forms of business, irrespective of forms of ownership and subordination, activity profile, spatial location. It is important to achieve the transfer of the centre of gravity from a purely administrative rigorous method for coordination and indicative of the style of management of scientific-technical and structural progress, the transformation of the state in effective partner entities.

Public authorities should promote self the most effective scientific and technological solutions to shape the legal and regulatory frameworks to stimulate the development and introduction of the latest achievements at all levels of management, to increase the innovative activity, contribute to the growth of scientific production and personnel potential.

Development of international cooperation and exchange of experience in the field of innovation. Perspective could be the creation of effective organizational and economic forms of international cooperation in the sphere of innovation, including through the development of joint niches, research centers, information systems and other organizations carrying out joint projects, research and development. A large value may be implementing, in cooperation with foreign partners, activities for the unification and harmonization of standards systems,

legal documents, customs regulations, in order to eliminate discriminatory restrictions in the field of IIS and SP and innovation cooperation.

The country's economy, especially industry, is a complex socio-economic and scientific-technological system, consisting of many links, represented by different structures and levels of economic activity and management. The transition to a developed market economy makes intensify attention on the problem of creating a multi-level model of formation and implementation of IIS and SP of the country for the foreseeable future. This model should be based on the equality of different forms of ownership, creative participation in the implementation of innovative activities of all legal forms and management structures. With this in mind, a multi-level model should cover a broad set of diverse but interrelated hierarchical innovative strategies.

Difficulties in the development of innovative-investment economy that is the key moments, which at this stage do not contribute to the development of this type of economy: dependence on natural resources, the growing socio-economic gap between social strata and regions, social passivity, low level of readiness of people to develop and decision making. Innovative-investment component creates the conditions in which it becomes possible to carry on an economic activity at a speed of technological processes, without limitation through electronic and nominal monetary turnover, without institutional barriers.

1.3. Foreign experience in the use of innovative approaches and further implementation of innovative decisions in enterprises

Despite massive investments of management time and money, innovation remains a frustrating pursuit in many companies. Innovation initiatives frequently fail, and successful innovators have a hard time sustaining their performance—as Polaroid, Nokia, Sun Microsystems, Yahoo, Hewlett-Packard, and countless others have found. Why is it so hard to build and maintain the capacity to innovate? The reasons go much deeper than the commonly cited cause: a failure to execute. The

problem with innovation improvement efforts is rooted in the lack of an innovation strategy.

A strategy is nothing more than a commitment to a set of coherent, mutually reinforcing policies or behaviors aimed at achieving a specific competitive goal. Good strategies promote alignment among diverse groups within an organization, clarify objectives and priorities, and help focus efforts around them. Companies regularly define their overall business strategy (their scope and positioning) and specify how various functions—such as marketing, operations, finance, and R&D—will support it. But during more than several months studying and consulting for companies in a broad range of industries, I have found that firms rarely articulate strategies to align their innovation efforts with their business strategies.

Without an innovation strategy, innovation improvement efforts can easily become a grab bag of much-touted best practices: dividing R&D into decentralized autonomous teams, spawning internal entrepreneurial ventures, setting up corporate venture-capital arms, pursuing external alliances, embracing open innovation and crowd sourcing, collaborating with customers, and implementing rapid prototyping, to name just a few. There is nothing wrong with any of those practices per se. The problem is that an organization's capacity for innovation stems from an innovation system*:* a coherent set of interdependent processes and structures that dictates how the company searches for novel problems and solutions, synthesizes ideas into a business concept and product designs, and selects which projects get funded. Individual best practices involve trade-offs. And adopting a specific practice generally requires a host of complementary changes to the rest of the organization's innovation system. A company without an innovation strategy won't be able to make trade-off decisions and choose all the elements of the innovation system.

Aping someone else's system is not the answer. There is no one system that fits all companies equally well or works under all circumstances. There is nothing wrong, of course, with learning from others, but it is a mistake to believe that what

works for, say, Apple (today's favorite innovator) is going to work for your organization. An explicit innovation strategy helps you design a system to match your specific competitive needs.

Finally, without an innovation strategy, different parts of an organization can easily wind up pursuing conflicting priorities—even if there's a clear business strategy. Sales representatives hear daily about the pressing needs of the biggest customers. Marketing may see opportunities to leverage the brand through complementary products or to expand market share through new distribution channels. Business unit heads are focused on their target markets and their particular P&L pressures. R&D scientists and engineers tend to see opportunities in new technologies. Diverse perspectives are critical to successful innovation. But without a strategy to integrate and align those perspectives around common priorities, the power of diversity is blunted or, worse, becomes self-defeating.

A good example of how a tight connection between business strategy and innovation can drive long-term innovation leadership is found in Corning, a leading manufacturer of specialty components used in electronic displays, telecommunications systems, environmental products, and life sciences instruments. (Disclosure: I have consulted for Corning, but the information in this article comes from the 2008 HBS case study "Corning: 156 Years of Innovation", by H. Kent Bowen and Courtney Purrington.) Over it's more than 160 years Corning has repeatedly transformed its business and grown new markets through breakthrough innovations. When judged against current best practices, Corning's approach seems out of date. The company is one of the few with a centralized R&D laboratory (Sullivan Park, in rural upstate New York). It invests a lot in basic research, a practice that many companies gave up long ago. And it invests heavily in manufacturing technology and plants and continues to maintain a significant manufacturing footprint in the United States, bucking the trend of wholesale outsourcing and off shoring of production.

Yet when viewed through a strategic lens, Corning's approach to innovation makes perfect sense. The company's business strategy focuses on selling

“keystone components” that significantly improve the performance of customers’ complex system products. Executing this strategy requires Corning to be at the leading edge of glass and materials science so that it can solve exceptionally challenging problems for customers and discover new applications for its technologies. That requires heavy investments in long-term research. By centralizing R&D, Corning ensures that researchers from the diverse disciplinary backgrounds underlying its core technologies can collaborate. Sullivan Park has become a repository of accumulated expertise in the application of materials science to industrial problems. Because novel materials often require complementary process innovations, heavy investments in manufacturing and technology are a must. And by keeping a domestic manufacturing footprint, the company is able to smooth the transfer of new technologies from R&D to manufacturing and scale up production.

Moreover, in the Corning’s breakthrough innovations scheme depicts all stages of transformation one specific material for different purposes which completely been as an example for innovative approach of last centuries. As we can see in the following chapter glass material firstly used as a primitive material for Thomas Edison’s light bulbs, thereafter it used in heavy industries and so on. Finally, glass is being used as a fiber optic cable which transmits high speed data from one destination to another. It is glaring evidence that when glass was invented it is called novation whereas, all modified changes for enhancing the productivity skills of glass is called as an innovation.

The following table depicts the full transformation of innovation process as an example light bulb has been taken.

During its more than 160 years, Corning has leveraged its expertise in glass and materials science to produce a long list of highly successful products, including the following.

Table 2

Corning's Breakthrough Innovations

During its more than 160 years, Corning has leveraged its expertise in glass and materials science to produce a long list of highly successful products, including the following.
1800s
1879 Glass envelope for Thomas Edison's lightbulbs
1900s
1912 Glass for railroad lanterns that could withstand extreme temperature changes
1915 Heat-resistant Pyrex glass for cookware and laboratory equipment
1926 Ribbon machine for the mass production of light bulbs
1932 High-purity fused silica-the foundation of other Corning innovations, such as telescope mirrors and optical fiber
1934 Silicones, a class of materials that are a cross between glass and plastic
1947 Process for mass-producing television picture tubes
1952 Heat- and break-resistant glass-ceramic material used in Corning Ware cookware and missile nose cones
1964 Fusion overflow process for producing flat glass
1970 Low-loss optical fiber used in telecommunications networks
1972 Cellular ceramic substrates used in automotive catalytic converters and today's diesel engines
1982 Active matrix liquid crystal display (LCD) glass for high-quality flat-panel displays
2000s
2007 Gorilla Glass-thin, lightweight glass with exceptional damage resistance for smart phones, tablets, and other consumer electronics
2012 Ultra slim, flexible, lightweight glass for consumer electronics and architectural and design applications

Source: made by author based on Corning; Gary P. Pisano Strategy", June 2015.

Corning's strategy is not for everyone. Long-term investments in research are risky: The telecommunications bust in the late 1990s devastated Corning's optical fiber business. But Corning shows the importance of a clearly articulated innovation strategy—one that's closely linked to a company's business strategy and core value proposition. Without such a strategy, most initiatives aimed at boosting a firm's capacity to innovate are doomed to fail.

Table 3

Innovation Landscape Map

When creating an innovation strategy, companies have a choice about how much to focus on technological innovation and how much to invest in business model innovation. This matrix, which considers how a potential innovation fits with a company's existing business model and technical capabilities, can assist with that decision.

Disruptive	**Architectural**
• Open source software for software companies • Video on demand for DVD rental services • Ride-sharing services for taxi and limo companies	• Personalized medicine for pharmaceutical companies • Digital imaging for Polaroid and Kodak • Internet search for newspapers
Routine	**Radical**
• A next-generation 3 series for BMW • A new index fund for vanguard • A new 3-D animated film for Pixar	• Biotechnology for pharmaceutical companies • Jet engines for aircraft manufacturers • Fiber-optic cable for telecommunications companies

Source: made by author based on Corning; Gary P. Pisano Strategy

Connecting Innovation to Strategy about 10 years ago Bristol-Myers Squibb (BMS), as part of a broad strategic repositioning, decided to emphasize cancer as a

key part of its pharmaceutical business. Recognizing that biotechnology-derived drugs such as monoclonal antibodies were likely to be a fruitful approach to combating cancer, BMS decided to shift its repertoire of technological capabilities from its traditional organic-chemistry base toward biotechnology. The new business strategy (emphasizing the cancer market) required a new innovation strategy (shifting technological capabilities toward biologics). (I have consulted for BMS, but the information in this example comes from public sources.)

Like the creation of any good strategy, the process of developing an innovation strategy should start with a clear understanding and articulation of specific objectives related to helping the company achieve a sustainable competitive advantage. This requires going beyond all-too-common generalities, such as “We must innovate to grow”, “We innovate to create value”, or “We need to innovate to stay ahead of competitors”. Those are not strategies. They provide no sense of the types of innovation that might matter (and those that won’t). Rather, a robust innovation strategy should answer the following questions: How will innovation create value for potential customers?

Unless innovation induces potential customers to pay more, saves them money, or provides some larger societal benefit like improved health or cleaner water, it is not creating value. Of course, innovation can create value in many ways. It might make a product perform better or make it easier or more convenient to use, more reliable, more durable, cheaper, and so on. Choosing what kind of value your innovation will create and then sticking to that is critical, because the capabilities required for each are quite different and take time to accumulate. For instance, Bell Labs created many diverse breakthrough innovations over a half century: the telephone exchange switcher, the photovoltaic cell, the transistor, satellite communications, the laser, mobile telephony, and the operating system Unix, to name just a few. But research at Bell Labs was guided by the strategy of improving and developing the capabilities and reliability of the phone network. The solid-state research program—which ultimately led to the invention of the transistor—was motivated by the need to lay the scientific foundation for developing newer,

more reliable components for the communications system. Research on satellite communications was motivated in part by the limited bandwidth and the reliability risks of undersea cables. Apple consistently focuses its innovation efforts on making its products easier to use than competitors' and providing a seamless experience across its expanding family of devices and services. Hence its emphasis on integrated hardware-software development, proprietary operating systems, and design makes total sense. How will the company capture a share of the value its innovations generate?

Value-creating innovations attract imitators as quickly as they attract customers. Rarely is intellectual property alone sufficient to block these rivals. Consider how many tablet computers appeared after the success of Apple's iPad. As imitators enter the market, they create price pressures that can reduce the value that the original innovator captures. Moreover, if the suppliers, distributors, and other companies required to deliver an innovation are dominant enough, they may have sufficient bargaining power to capture most of the value from an innovation. Think about how most personal computer manufacturers were largely at the mercy of Intel and Microsoft.

Companies must think through what complementary assets, capabilities, products, or services could prevent customers from defecting to rivals and keep their own position in the ecosystem strong. Apple designs complementarities between its devices and services so that an iPhone owner finds it attractive to use an iPad rather than a rival's tablet. And by controlling the operating system, Apple makes itself an indispensable player in the digital ecosystem. Corning's customer-partnering strategy helps defend the company's innovations against imitators: Once the keystone components are designed into a customer's system, the customer will incur switching costs if it defects to another supplier.

One of the best ways to preserve bargaining power in an ecosystem and blunt imitators is to continue to invest in innovation. I recently visited a furniture company in northern Italy that supplies several of the largest retailers in the world from its factories in its home region. Depending on a few global retailers for

distribution is risky from a value-capture perspective. Because these mega retailers have access to dozens of other suppliers around the world, many of them in low-cost countries, and because furniture designs are not easily protected through patents, there is no guarantee of continued business. The company has managed to thrive, however, by investing both in new designs, which help it win business early in the product life cycle, and in sophisticated process technologies, which allow it to defend against rivals from low-cost countries as products mature. What types of innovations will allow the company to create and capture value, and what resources should each type receive?

Certainly, technological innovation is a huge creator of economic value and a driver of competitive advantage. But some important innovations may have little to do with new technology. In the past couple of decades, we have seen a plethora of companies (e.g. Netflix, Amazon, LinkedIn, and Uber) master the art of business model innovation. Thus, in thinking about innovation opportunities, companies have a choice about how much of their efforts to focus on technological innovation and how much to invest in business model innovation.

Routine innovation builds on a company's existing technological competences and fits with its existing business model – and hence its customer base. An example is Intel's launching ever-more-powerful microprocessors, which has allowed the company to maintain high margins and has fueled growth for decades. Other examples include new versions of Microsoft Windows and the Apple iPhone.

Disruptive innovation, a category named by Harvard Business School colleague Clay Christensen, requires a new business model but not necessarily a technological breakthrough. For that reason, it also challenges, or disrupts, the business models of other companies. For example, Google's Android operating system for mobile devices potentially disrupts companies like Apple and Microsoft, not because of any large technical difference but because of its business model: Android is given away free; the operating systems of Apple and Microsoft are not.

Radical innovation is the polar opposite of disruptive innovation. The challenge here is purely technological. The emergence of genetic engineering and biotechnology in the 1970s and 1980s as an approach to drug discovery is an example. Established pharmaceutical companies with decades of experience in chemically synthesized drugs faced a major hurdle in building competences in molecular biology. But drugs derived from biotechnology were a good fit with the companies' business models, which called for heavy investment in R&D, funded by a few high-margin products.

Architectural innovation combines technological and business model disruptions. An example is digital photography. For companies such as Kodak and Polaroid, entering the digital world meant mastering completely new competences in solid-state electronics, camera design, software, and display technology. It also meant finding a way to earn profits from cameras rather than from "disposables" (film, paper, processing chemicals, and services). As one might imagine, architectural innovations are the most challenging for incumbents to pursue.

A company's innovation strategy should specify how the different types of innovation fit into the business strategy and the resources that should be allocated to each. In much of the writing on innovation today, radical, disruptive, and architectural innovations are viewed as the keys to growth, and routine innovation is denigrated as myopic at best and suicidal at worst. That line of thinking is simplistic.

The final challenge facing senior leadership is recognizing that innovation strategies must evolve. Any strategy represents a hypothesis that is tested against the unfolding realities of markets, technologies, regulations, and competitors. Just as product designs must evolve to stay competitive, so too must innovation strategies. Like the process of innovation itself, an innovation strategy involves continual experimentation, learning, and adaptation.

II. ANALYZING AND ESTIMATING OF THE INNOVATIVE APPROACHES OF LLC “UNIVERSAL MOBILE SYSTEMS”

2.1. The concept of the ministry of innovation development of the Republic of Uzbekistan and present condition of activity of LLC “Universal Mobile Systems”

Innovation is the market introduction of a technical
or organizational novelty, not just its invention
Joseph A. Schumpeter

It is completely true that in the XXI- century the only way to accomplish high growth and effectiveness of enterprises without big losses, is thinking creatively and implementing innovations in our daily life through creation of strategic stages. In fact, the head of our state claims that the only way to success is innovative decisions and approaches of implementing in each sphere of our economy.

In this chapter, it will be given the broad information about Ministry for innovation development of the Republic of Uzbekistan which was formed by the initiative of the president of the Republic of Uzbekistan Sh.M. Mirziyayev. Besides, will be illustrated contemporary condition of LTD “Universal Mobile Systems” in terms of innovations and its influence on economic effectiveness of the company.

In pursuance of the Presidential Decree of November 29, 2017 No. UP-5264 "On the formation of the Ministry of Innovative Development of the Republic of Uzbekistan": The Ministry is a body of state administration implementing a unified state policy in the sphere of innovative and scientific and technical development of the Republic of Uzbekistan aimed at comprehensive development of public and state life, enhancing the country's intellectual and technological potential;

The Ministry is subordinate to the Cabinet of Ministers of the Republic of Uzbekistan, and on certain issues of activities provided for by legislative acts, directly to the President of the Republic of Uzbekistan.

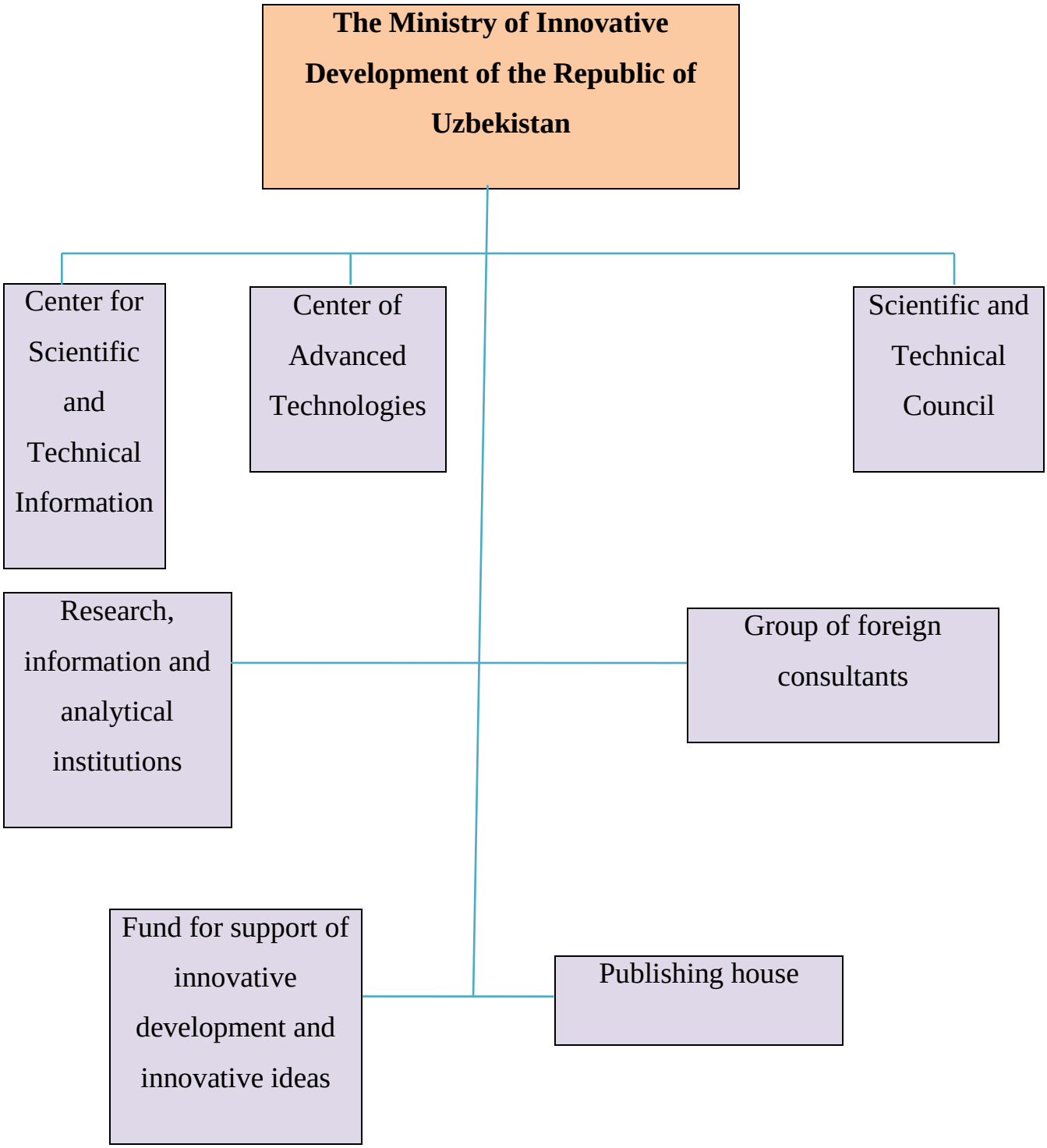


Figure 1. The Organizational Structure of Ministry of Innovative Development of the Republic of Uzbekistan

Source: made by author based on http://www.lex.uz/docs/3431438

According to the document, the new ministry will have four departments: research and implementation of innovations in public and public construction, research and implementation of innovations in education and health, research and innovation in the financial and economic sector, as well as research and innovation in the real sector economy.

The main tasks of the Ministry are:

- development and implementation of innovations in state and public construction, taking into account long-term scenarios of the country's development, as well as defining a strategy for the development of priority and promising areas of scientific research and advanced technologies that ensure the progress of society and the state;
- strategic and preventive planning to ensure the accelerated development of the economy, taking into account the rapidly changing world situation;
- comprehensive analysis and forecasting of the activities of state bodies and organizations to improve the level and quality of life of the population, ensure the growth of its well-being, and the formation of a modern infrastructure for the development of science and innovation that can provide the necessary conditions for sustainable growth of the country's social and economic potential;
- promotes the introduction of technologies of the "green economy", providing for increased productivity with the use of environmentally friendly technologies that allow to reduce the level of environmental pollution;
- contributes to the formation of scenarios for the medium- and long-term development of the economy branches in interrelation with macroeconomic, fiscal and monetary parameters, as well as with the assessment of the impact of integration processes;
- promotes the accelerated development and cardinal change in the structure of the service sector, their quality and role in the formation of the gross domestic product, primarily through the introduction of innovative developments and technologies.

The main task of the central apparatus of the Ministry is to ensure, together with the structural subdivisions and subordinate organizations, the effective performance of tasks and functions assigned to the Ministry.

The central apparatus of the Ministry in accordance with the assigned main task performs the following functions:

- carries out organizational, control and information-analytical support for the activities of the Ministry and its leadership;
- ensures coordinated work of structural units, as well as interaction with subordinate organizations within the framework of the tasks and functions assigned to the Ministry;
- carries out management and coordination, as well as control over the activities of structural units and subordinate organizations, including compliance with legislative acts, departmental and interdepartmental normative documents;
- in pursuance of instructions, acts of legislation, and also on its own initiative, develops drafts of normative and legal acts and other documents on matters within the competence of the Ministry;
- decides operational, organizational, personnel, financial, production and business and other issues related to the competence of the Ministry.

The Ministry has the right to carry out tasks and functions assigned to it:

- to study the state of affairs in state bodies and other organizations, to collect and summarize proposals for improving innovation activity;
- to evaluate innovation activity on the basis of indicators of its effectiveness, to determine the main directions for the development of relevant industries and areas that require the first-stage introduction of advanced technologies;
- coordinate the activities of government bodies, research, information and analytical institutions and other organizations on the implementation of innovative ideas, developments and technologies, request and receive from them the information necessary to address issues within the competence of the Ministry;

- to form state assignments for the provision of scientific and technical services in the implementation of fundamental, applied and innovative research for the social and economic sphere;
- promote the commercialization of research results, developments and technologies, as well as the transfer of technology;
- to submit in the established order to the machinery of the President of the Republic of Uzbekistan or the Cabinet of Ministers of the Republic of Uzbekistan drafts of normative and legal acts, as well as other documents on matters within the competence of the Ministry;
- receive on a free basis from the state statistics authorities the necessary information on issues within the competence of the Ministry;
- determine the procedure, size and conditions of material incentives for employees of the Ministry, its structural divisions and subordinate organizations, taking into account the fulfillment of the parameters and the achievement of the established indicators on the main indicators of their activities in the relevant field;
- submit for consideration in the apparatus of the President of the Republic of Uzbekistan, the Cabinet of Ministers of the Republic of Uzbekistan, state bodies and organizations proposals on matters within the competence of the Ministry;
- conclude, in accordance with the established procedure, international treaties of an interdepartmental nature on matters within the competence of the Ministry;
- to represent, in accordance with the established procedure, the interests of the Republic of Uzbekistan at the international level on matters within the competence of the Ministry;
- create interdepartmental scientific and technical, innovative councils, as well as expert groups on the most important areas of science and technology development among the leading scientists and highly qualified specialists of state bodies and organizations for organizing and conducting an examination of

scientific, technical and innovative projects, as well as solving problems included in competence of the Ministry;

- establish in accordance with the established procedure departmental scientific and training centers for the training of scientific personnel and advanced training of employees, consultative and information centers, scientific laboratories;
- to develop the main directions of orders of state scientific and technical programs and projects implemented by scientific research, educational and other institutions of the republic;
- to develop complex measures and programs for the development of industries and territories taking into account innovative ideas, developments and technologies, and also to submit them for approval in accordance with established procedure;
- announce tenders and create competitive commissions for the selection of projects for the conduct of research and development in the field of innovative development in accordance with the state order for the performance of these works;
- to involve in scientific and innovative research as experts of national experts of state bodies and organizations, employees of scientific research and information-analytical institutions, scientists and teachers of educational institutions, including foreign ones;
- organize and hold annual republican fairs of innovative ideas, developments and technologies, as well as monitoring the implementation of contracts concluded within their framework;
- to cooperate with the relevant structures of foreign states and international organizations, scientific laboratories and institutions on issues within the competence of the Ministry;
- take measures to improve the material and technical base and social infrastructure of the Ministry, its structural units and subordinate organizations;
- participate in the allocation of budgetary financial resources directed to scientific, scientific and technical research;

- convene, in accordance with the established procedure, meetings on issues within the competence of the Ministry, involving managers and specialists of state bodies and organizations.

The Ministry is responsible for:

- proper and effective performance of assigned tasks and functions, as well as practical implementation of state policy in the relevant field;
- unconditional maintenance of achievement of parameters and the established indicators on the basic indicators of activity in corresponding sphere;
- quality, final results and consequences of the implemented innovations, ideas and technologies, as well as draft normative and legal acts and other documents submitted to the apparatus of the President of the Republic of Uzbekistan and the Cabinet of Ministers of the Republic of Uzbekistan, as well as those adopted by the Ministry;
- effective implementation of programs, action plans, road maps and other documents on the development of the relevant sphere and solving problematic issues of the territories;
- ensuring compliance with and protecting the rights and legitimate interests of citizens and business entities.

In July 2014, the Peace Agreement between the Republic of Uzbekistan and PJSC Mobile Tele Systems was signed on the establishment of Universal Mobile Systems LLC with the distribution of shares in which PJSC MTS received a share of 50.01% of the share capital, the remaining 49.99 % belong to the State Unitary Enterprise under the Ministry for the Development of Information Technologies and Communications of the Republic of Uzbekistan.

On July 31, 2014, a resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On the establishment of a joint venture" Universal Mobile Systems "for the provision of mobile communications services was adopted." According to this document, in the formation of the initial statutory fund of the operator, the Uzbek side contributed a share in the form of telecommunications equipment and other property for the amount of 1 066.2 billion sums.

The activity of LLC UMS was developed in the conditions of state support and provision of tax benefits, guarantees and preferences. In particular, the property transferred as a contribution to the statutory fund of a legal entity was excluded from the objects of taxation for corporate income tax and the tax for the improvement and development of infrastructure. Also, the share transferred to the UMS statutory fund, which was donated, was not subject to corporate income tax, development and infrastructure tax and value added tax. In addition, UMS LLC received a deferral from payment of state duty until October 1, 2015 for issuing licenses for activities in the field of telecommunications, fees for the use of the radio frequency spectrum, as well as operating fees for the use of radio electronic means.

Joint-stock commercial bank "Aloqabank" has been allocated a credit line in the amount of 500 billion sums with a term until 2022. UMS started its business on December 1, 2014.

August 8, 2016, the co-founder of the company, PJSC "MTS", sold its stake in the authorized capital of 50.01 percent of the State Unitary Enterprise "Center for Radio Communications, Broadcasting and Television" (MDRT) under the Ministry of Information Technologies and Communications of the Republic of Uzbekistan.

The activity of LLC UMS in 2016 was aimed at further expansion of the coverage of the cellular network throughout the Republic of Uzbekistan, including increased coverage of the 3G network in the regions and LTE network in Tashkent, (Huawei), development and expansion of services and offers in the mobile market of Uzbekistan. In this chapter we will observe the full structure of LLC “Universal Mobile Systems” how it formalized, how many departments have and their main purpose and who are responsible for specific part of complex work as LLC “Universal Mobile Systems”. First of all the whole company is governed by general director of LLC “Universal Mobile Systems”. Accordingly there are ten different departments. They will be showed in the below diagram.

According to this structure, it glaring evidence that General Director is a legal entity who is responsible for all issues of LLC “Universal Mobile Systems”. Thus, Head of internal control and audit group is responsible for all documents, which is transferred through bank accounts and so on. Following, Compliance manager is responsible for correctness of external and internal documents and preventing disobey of laws. Technical director is responsible for all technical processes, accordingly giving right edifications how to keep all techniques in working condition.

The following but not lasting IT director is concerned as a heart of all processes without their contribution all equipments might be useless in leading for success. Commercial director is responsible for selling sim cards for potential customers and surely, governed with her employees.

Deputy General Director for Finances and Economic Affairs is responsible all valued contracts which should be paid and which should be imposed. Administrative director is responsible for internal affairs with providing all necessary equipments in order to continue working process constantly.

All these high managers have specific fields and well educated staff who contribute their efforts to growth the productivity and increase liquidity of company.

The number of cellular subscribers in Uzbekistan at the end of 2016 amounted to 21.3 million subscribers. The main operators in the market are Beeline, Ucell, UMS, and UzMobile. In 2016, the share of UMS in the mobile communications market grew by 1.2 pp in the subscriber base and by 11 pp in revenues:

- UMS subscriber base at the end of 2016 was 1 951 332 subscribers, the subscriber growth for the year was 822 677 thousand subscribers, the share for the year was 6.9%, mainly due to the decrease of Beeline's share in the subscriber base by 3.7%;
- For the year 2016, there was no significant redistribution of market positions of mobile communication operators of the Republic of Uzbekistan.

Beeline is in the lead with a 45.9% share, the separation from the main competitor Ucell (41.2%) by market share was 4.7%, or 862,742 subscribers.

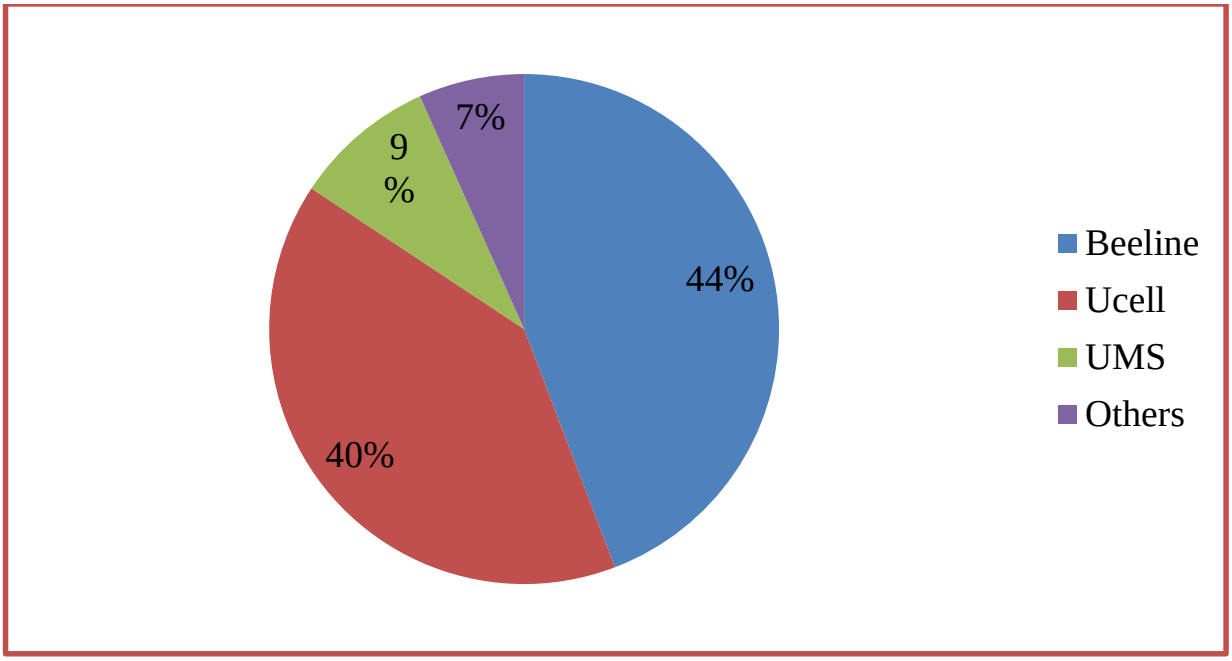


Figure 3. The distribution subscribers among mobile companies in 2017 year

Source: Made by author using financial report of LLC "Universal Mobile Systems".

For the year 2017, the number of subscribers of mobile companies increased and amounted to 22 million subscribers. The dominant positions remained unchangeable by Beeline, Ucell and UMS.

LLC "Universal Mobile Systems" is envisaged as an innovative high qualitative mobile company in the field of telecommunication market, providing uninterrupted services for its subscribers. In the following list I would like to point out several new activities which were implemented in working condition. They are:

- from 25.04.2018 - discounts from 50% to 90% on beautiful numbers!;
- from 23.03.2018 - the new tariff plan is "Premium"!;
- from 12.03.2018 - new tariff plan - "Basic"!;
- from 07.03.2018 - the new tariff plan is "Optimal"!;
- from 05.12.2017 - action "Millions from UMS"!;
- from 30.11.2017 - discount of 80% on rooms of Super Platinum category!;

- from 03.08.2017 - Mobile TV "Allplay";
- from 27.07.2017 - roaming with UMS in the network operator Monaco Telecom, Monaco!;
- from 22.06.2017 - roaming with UMS in the network operator Ooredoo Maldives!;
- from 15.06.2017 - Roaming with UMS in the operator's network Xfera Moviles (Yoigo) Spain!;
- from 14.06.2017 - Roaming with UMS in the network of Ucom Armenia !;
- from 03.05.2017 - SMS-informing about violation of traffic rules;
- from 28.04.2017 - roaming with UMS in the network operator KCell Kazakhstan!;
- from 23.03.2017 - connect the "beautiful numbers" of Steel and Bronze at a discount of 90%!;
- from 23.02.2017 - new tariff plan "555" for active communication!;
- from 01.02.2017 - come on OLX.UZ, get bonuses from UMS!;
- from 29.12.2016 - with the new tariff plan "Perfect" you get unlimited communication, as well as free "beautiful number" Steel or Bronze with a 50% discount!;
- from 09.12.2016 - purchase of Internet packages through CLICK!;
- from 01.12.2016 - the promotion "1 + 1": we are 2 years old - you get bonuses!;
- from 23.11.2016 - new tariff plan "777" for active communication!;
- from 17.11.2016 - make purchases in the network of supermarkets Basket and get a bonus from UMS - 300 megabytes!;
- from 21.10.2016 - refill your account and get 100 minutes on the net!;
- from 08.08.2016 - the action "Anniversary!" was launched in honor of the 25th anniversary of the independence of the Republic of Uzbekistan: the connection of the "beautiful number" from the category "Steel" is free of charge;

- from 08/08/2016 - UMS became the sole owner of the GUP Center for Radio Communication, Broadcasting and Television under The Ministry for Development of Information Technologies and Communications of the Republic of Uzbekistan;
- from 01.08.2016 - updated tariff plans "MAXI new", "MAXI year", "Ultra" and "Ultra Year";
- from July 20, 2016 - changes and additions were made to the masks and categories of rooms of a special category;
- from 11.07.2016 - new subscribers are given the opportunity to activate the service "You have been called / I'm online" for free for 30 days from the moment of connecting the number;
- from 08.07.2016 - the portal of acquaintances club.ums.uz was launched;
- from 05.07.2016 - UMS launched a news channel in Telegram;
- from 01.07.2016 - launched a joint action with Huawei "Buy a Smartphone Huawei and get - 18 000 megabytes from UMS for six months!";
- from 20.06.2016 - UMS launched 4G LTE in the capital of the Republic of Uzbekistan in Tashkent;
- from 07.05.2016 - UMS subscribers got the opportunity to communicate within the network absolutely free of charge ("Super 0" service);
- from May 16, 2016 - the action on 20% bonus of Internet packages;
- from 05.03.2016 - in honor of the International Women's Day, the action "From March 8!" was conducted - the ladies-visitors of offices were charged for free unlimited minutes for outgoing calls and unlimited SMS;
- from 18.03.2016 to 31.03.2016 - the action "Beautiful number on Navruz" is held - the opportunity to connect the number of the category "Steel" for free;
- from 08.02.2016 - updated and restarted service "Good'Ok" - the ability to replace the beeps with melodies;
- from February 17, 2016 - the tariff plan "Super Optima" was launched;

- from 19.02.2016 to 31.03.2016 - the action "Choose your Galaxy!" - the buyers of the model line of Samsung Galaxy smart phones were able to receive bonuses from UMS for 2 months free of charge';
- from 01/13/2016 - the tariff plans "Ultra Year" and "Absolute Year" with annual subscription fee;
- from 13.01.2016 - subscribers of annual tariffs are given discounts from 50% to 100% on "beautiful number";
- from 04/05/2015 - the tariff plan for veterans of the Second World War "Veteran" was launched;
- since March 2015, roaming services have been launched in Russia, Turkmenistan and Belarus;
- from 06.03.2015 - the new tariff plan "Optima" was launched;
- from 27.02.2015 - the "On-line" service for subscribers in blocked status was launched;
- from 06.01.2015 - a seven-day schedule for all Customer Service Centers on the territory of the Republic of Uzbekistan was introduced;
- from 09.12.2014 - for the first time in Uzbekistan launched the service HD Voice - audio technology, which allows to eliminate the majority of bandwidth limitations and transmit sound in the range from 50 to 7 000 Hz and higher in the "crystal clear" form;
- from 01.12.2014 - for the first time in Uzbekistan a quantum of tariffing of mobile Internet traffic of 1 kilobyte has been introduced;
- from 01.12.2014 - Start tariff plans, "Maxi" and "Absolute" tariff plans, Internet packages, a beautiful number selection service, as well as the "Family" option for cheap calls within the CIS within the group of MTS operators.

2.2. Analysis of the financial results of LLC "Universal Mobile Services" in 2017 year

The financial indicators for the year 2017, presented in this report, are calculated on the basis of the data of the National Accounting Standards, transformed in accordance with IFRS and the methodology used by PJSC "MTS".

Table 4

Financial and economic indicators of the Company's activities for 2017

Indicators, (billion sum)	**2016 year**	**2017 year**		**% to plan**	**2017 to 2016 in %**
	Fact	Fact	Plan		
Income	389 967	473 469	447 874	5.7%	121.4%
Cost price	238 045	285 654	260 651	9.6%	120%
Gross income	151 922	182 306	175 987	3.6%	120%
Operating expenses	147 555	177 066	170 410	4%	120%
OIBDA	4 367	-61 945	-95 441	-35%	-1418%
Other income (expenses)	1 018	-11 632	-20 768	-44%	-1142%
Net income	-169 148	-240 539	-245 793	-2%	-142%

Source: Made by author using financial report of LLC “Universal Mobile Systems”, for the period 2015 – 2017 y.

Revenues for 2017 year amounted to UZS 473 469 million, which is higher than the planned figures by UZS 20 532 million. The revenue plan in 2017 was implemented due to the growth of the subscriber base, the launch of new marketing activities (the launch of new tariff plans: Connect, Perfect and “555”, The promotion "Megabytes"!, buy a Smartphone and get - megabytes from UMS for four months!, the action "MEGA-bytes do not burn!”, joint shares with Samsung, Huawei, Cart).

Apparently, the high economic growth associates with innovative rationalize ideas which lead to improve economic and financial conditions of the company that the most true and reliable way to success through innovations. In spite of

several new marketing strategies at the end of 2017 company closed the year with shortage, it specifies with tremendous expenses for operational and capital expenses.

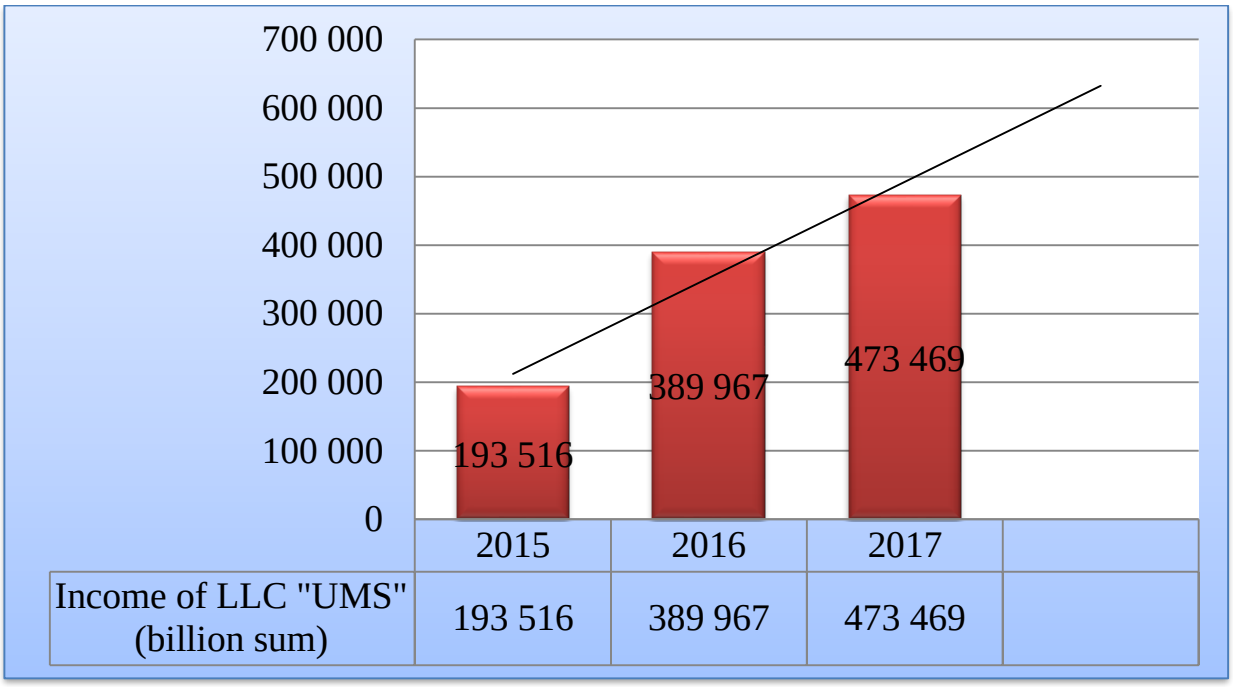


Figure 4. Indicator of income of LLC "Universal Mobile Systems" for the period 2015-2017

Source: made by author relying on financial report of LLC "Universal Mobile Systems" in recent years

It is glaring evidence from the illustration that income of the company increases considerably, it is supposed with correct choosing strategic management due to relevant decisions company is able to accomplish such figures. Undoubtedly, LLC "Universal Mobile Systems" has launched several well-being innovative services which also aid to increase financial statement and reputation of the company among subscribers. It is accepted that revenue and amount of subscribers of this mobile operator will be increased 30 % approximately.

In spite of the newest in the field of telecommunication market, LLC "Universal Mobile Systems" is integrating with economic subjects correctly which is specified its choosing strategic development by high managers of this mobile company.

Table 5

The structure of formation of revenue

Indicators (mln. sum)	1Q17	2Q17	3Q17	4Q17	2017
The time fee	14 496	15 817	17 102	16 546	63 961
Roaming time fee	42	66	90	102	300
Roaming of guest subscribers	342	454	480	558	1 834
Subscription fee	38 697	44 797	49 345	53 563	186 402
Additional / other services	4 965	3 789	3 120	3 357	15 231
Income from SMS	3 316	3 590	4 116	4 406	15 428
Income from data transmission	29 488	31 456	36 950	40 648	138 542
Income from content services	2 239	2 409	2 876	3 195	10 719
Value Added Services (VAS)	2 640	2 780	3 115	3 278	11 813
Interconnect income	6 002	6 523	6 990	7 613	27 128
Other mobile business revenue	180	361	282	459	1 282
Sales of goods	345	108	51	317	821
FB Revenues from the operator segment	0,5	0,9	2,7	4,2	8,3
Total revenue	**102 753**	**109 371**	**124 520**	**134 046**	**473 469**

Source: made by author based on data providing by LLC “Universal Mobile Systems”.

Revenue is the top line or the number that indicates how much overall income the business made in a given time period. This does not include any deductions, expenses, or costs. Calculating revenue is relatively easy, if you know the price of your goods and how many were sold. Keeping good records of all transactions is the key to tip-top financial management. Learn more about financial management basics in this course.

In the most basic sense, the is:

QUANTITY × PRICE = REVENUE[19]

At the end of 2017 year the costs forming the cost price amounted to 285 712, 00 million sums, which exceeds the planned values by 10.1%. The structure is given in the table:

Table 6

The structure of formation of cost price

Indicators (billion sum)	**1Q17**	**2Q17**	**3Q17**	**4Q17**	**2017**
Interconnect Costs	10 965	12 221	13 672	15 069	51 927
Costs for connecting to IP-networks	2 601	2 487	3 030	3 214	11 332
Lease of channels	2 796	2 996	3 128	3 069	11 989
Expenses for roaming	22	2 083	54	74	2 233
Cost of kits and payment cards	354	393	578	712	2 037
Cost of goods	321	84	41	223	669
Expenses for production personnel	4 083	6 320	4 744	5 864	21 011
Rental expenses	6 644	7 938	7 436	7 422	29 440
Expenses for repairs and technical. service	4 802	5 146	3 579	4 126	17 653
Electricity and production utilities	2 470	3 075	3 768	3 206	12 519
Use of radio frequencies	6 056	6 052	6 080	6 972	25 160
Other direct costs	13 651	14 988	16 303	18 091	63 033
Cost of content and VAS for mobile subscribers	927	1 028	1 060	1 287	4 302
Other production costs	518	727	1 977	824	4 046
Cost of services and goods	**63.440,00**	**72 378,00**	**71 655,00**	**69 184,00**	**285 712,00**

Source: Made by author based on financial report of LLC "Universal Mobile Systems".

[19] https://blog.udemy.com/revenue-formula/.

The way to calculate the cost of creating a product directly depends on the degree of readiness of the product itself. The calculation formula looks like this:
Expenses for production:

C = M3 + A + Tr + miscellaneous expenses,

Where, A - depreciation;

C - cost of expenses;

M3 - material costs of the firm;

Tr - waste on wages to employees of the firm.

The total cost of production is the formula for calculation:

C = waste to create a product + embezzlement of a non-productive nature.

The cost price of the sold product (cost of sales) is the calculation formula:

C = total cost + commercial expenses - balances of unrealized product.

Production cost:

C = gross product price - changes in WIP balances.

The prime cost of the gross output:

C = production costs - non-productive waste - future expenses.

The calculation of the cost of production has a huge impact on the alignment of the company's future development strategy, its position in the industry and the degree of consumer confidence.[20]

[20] http://businessmonster.ru/buhuchet/raschetyi/sebestoimost-formula.html.

III. THE PRIMARY WAY OF DETERMINING RECOMMENDATIONS AND SUGGESTIONS OF ACHIEVING ECONOMIC EFFICIENCY BY IMPLEMENTING INNOVATIONS IN LLC "UNIVERSAL MOBILE SYSTEMS"

3.1. Accomplishment high economic growth by implementing innovative ideas for further development of LLC "Universal Mobile Systems"

Innovation is not about technologies.

It is about how people think.

Jamie Anderson

According to the Strategy of action on five priority development vectors of the Republic of Uzbekistan in 2017-2021 offered by the head of the Republic of Uzbekistan Shavkat Mirziyoyev vital directions for further enhancement of the priority areas of economic development and liberalization is envisaged as a stable way to lead success. In particular, 2018 has been declared as the Year of Active Entrepreneurship, Innovative Ideas and Technologies so that the role of innovations in our life has been already important. Communication and transmission data are becoming more and more important power in contemporary economy, the role of mobile companies are appearing in the first stages in our daily life basis.

The main priorities of the marketing strategy of LLC "Universal Mobile Systems" in 2017 become:

- launch of V & D tariffs;
- sale of beautiful numbers;
- positioning of UMS as a Data Operator - high-quality mobile Internet for those who value quality and speed (positioning "mobile Internet as it should be");
- development of sales service network;
- development of VAS-services and enabler-services.

As part of its subscriber base and revenue growth strategy, UMS launched 10 new tariff plans. The share of HVPC in the database was 5%, in revenues - 33%, ARPU is 40% higher than the market. Data development - 62% of 1M subscribers are Internet users (Data Users), Data share in revenues is 30%. Approved the image of a quality telecom operator:

- start the positioning of the Data-operator;
- launching new tariffs and company shares;
- brand recognition by BHT 97.3 (data for the 3rd quarter of 2017).

In this chapter, I would like to point out my initiative-innovative ideas for further development of mobile company LLC “Universal Mobile Systems”. Innovative approaches generates according to activity, regulation and intellectual knowledge of employees or a person who has interests in this field so during my bachelor degree I have chosen some perspective ideas how to increase the amount of subscribers and especially, profitability of LLC “Universal Mobile Systems”.

In 2017 the following activities were realized in their own sales offices:

- the number of own sales offices has been increased to 39. 11 new sales offices have been opened. Parity with competitors in Tashkent is withheld;
- experience zone was organized in UMS own offices with Huawei and Samsung hardware vendors, and joint actions were conducted with them; and also with a network of supermarkets "Korzinka" and "Media Park;
- the number of activated Data services - 156 thousand units;
- the share of connections to HVPC tariff plans was 29.5%;
- •since the second half of the year, there has been a separate segmentation for servicing HVPC clients (in 3 categories), including priority dialing in the Contact Center; the number of clients of the HVPC segment is more than 92 thousand subscribers, which account for about 1/3 of the Company's revenues;
- rebranded the head office, changed the concept of customer service;
- UMS in 2017 strategically developed controlled sales channels with an emphasis on a mono brand. This UMS channel developed more than originally

planned for the purpose of representation in more key locations and settlements. In general, the channel was developed at the expense of the "mono brand" class, without monetary investments, only for the payment of dealer fees;

- In 2017 UMS has implemented a joint project with JSC "Uzbekistan Pochtasi" to organize multibrand retail outlets for the provision of mobile communications services at post offices. The number of outlets at post offices was 203 units;
- Dealer network at the end of 2017 amounted to 1,426 retail properties, including 9 "flagships", 44 "exclusive A +", 120 "exclusive A";
- Mono brand trading facilities are represented in 96 settlements out of 110 with a population of more than 20 thousand people.

The following activities are implemented:

- the reward for sales of Data packages was introduced and the connection scheme (via USSD portal) was simplified;
- in order to ensure quality connection of numbers, since September, a change in the methodology for calculating remuneration to partners has been introduced. In particular:
- payment of remuneration for performance of quantitative indicators - canceled;
- payment of remuneration from paid subscriber charges - implemented;
- projects on activating additional services of the Company through applications of payment systems UZPAYNET and CLICK have been implemented;
- a number selection tool is implemented;
- sale of paid numbers.

To re-structuring the department of marketing in the company. Marketing activity in the modern companies is organized differently. The most widespread form is a functional organization when at the head of various directions of marketing activity there are experts in this kind of activity – managers on sales,

managers on advertising, managers on marketing researches, services-managers and managers on the innovations.

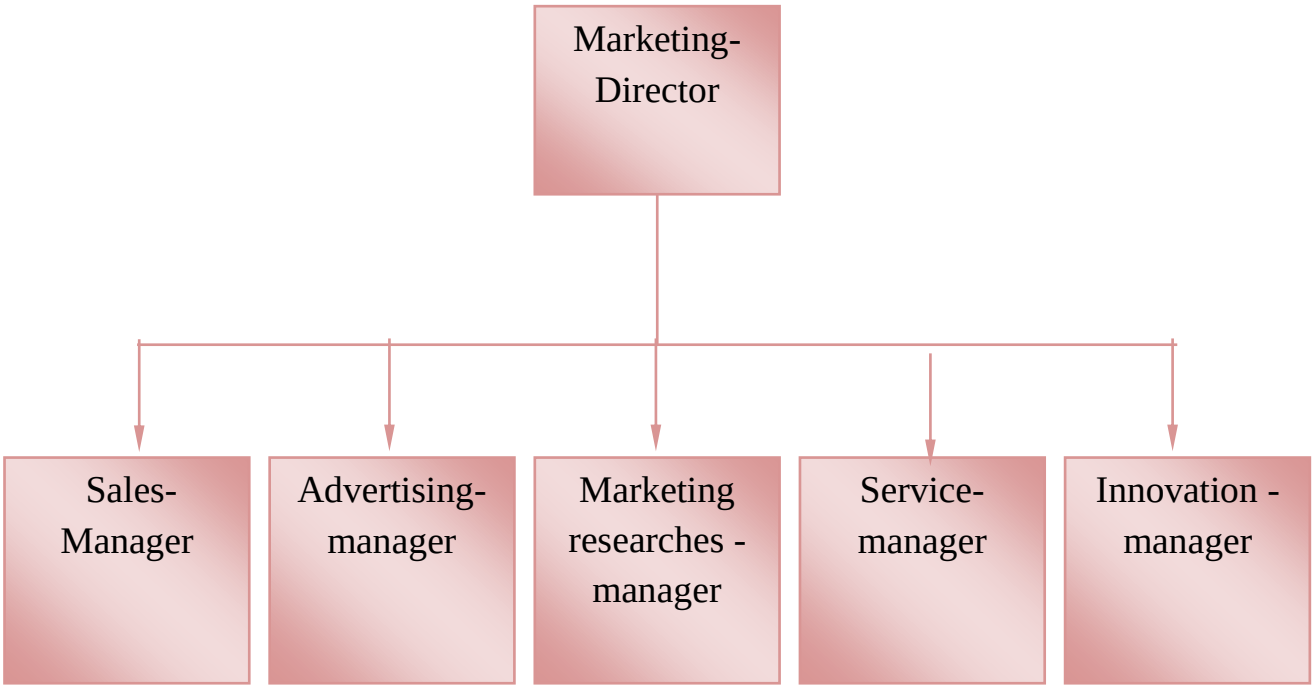


Figure 5. The functional organization of marketing department

Source: Made by own theoretical conceptual knowledge

The following innovation is associated a new type of trading which is called e-commerce. E-commerce is the activity of buying or selling of products on online services or over the internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems.

Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life cycle although it may also use other technologies such as e-mail. Typical e-commerce transactions include the purchase of online books (such as Amazon) and music purchases (music download in the form of digital distribution such as iTunes Store), and to a less extent, customized/personalized online liquor store inventory services.

Contemporary electronic commerce can be classified into two categories. The first category is business based on types of goods sold (involves everything from

ordering "digital" content for immediate online consumption, to ordering conventional goods and services, to "meta" services to facilitate other types of electronic commerce). The second category is based on the nature of the participant (B2B, B2C, C2Band C2C);

On the institutional level, big corporations and financial institutions use the internet to exchange financial data to facilitate domestic and international business. Data integrity and security are pressing issues for electronic commerce. Aside from traditional e-commerce, the terms m-Commerce (mobile commerce) as well (around 2013) t-Commerce have also been used.

By using e-commerce in LLC “Universal Mobile Systems” specializing selling numbers with further delivering mobile number to client address, this innovation will be able to increase economic growth of enterprise and making big reputation among customers. The structural formation will be considered subsequently below:

- search for the desired number in the database;
- online filling of personal data for the selected number;
- within 3 days a potential subscriber of the company must pick up his number;
- the subscriber must indicate from which of these 3 days will be able to come to the company;
- reservation must be paid;
- if these instructions are not followed, the number will be canceled and put back for sale.

Advantages for the company:

- increasing in subscriber base;
- increasing sales revenue with a new approach;
- sales promotion;
- active competition in the communications industry.

What are the advantages for subscribers?

- online reservation of the desired number at any time;
- reducing queue in companies;
- saving customer time;
- with further delivery through dealers.

The following recommendations for that company is making auction among customers for beautiful numbers which might be tremendous benefit for the company and its advantages will be explained below:

- develop a special trading platform where potential buyers could participate in the sale of elite rooms;
- to notify in advance about auction tenders through the media;
- the applicant must spend at least 10% of the amount set before the auction begins;
- the non-received number is returned to the non-combustible 10% in the established order on a plastic card.

Moreover, the survey has been made by me in terms of how to improve the services of telecommunication companies and public actively participated in this marketing research, results will be presented below.

3.2. Prosperity development of LLC "Universal Mobile Systems" by the help of public survey

Doing practice is a really necessary thing. It is true that "training and practice are parents of knowledge". In this chapter, I would like to point out the results of my public survey. In this survey, I conducted one hundred twenty people in four age categories, they are:

- people between 16-25 ages;
- people between 25-35 ages;
- people between 35-45 ages;
- over 45 age.

For conducting survey a questionnaire involving eight questions regarding the theme was compiled. Providing with the answers the analysis report was generated.

According to Figure 4 the majority (44%) of subscribers have the use of Beeline. In the second predominant position belongs to Ucell with (29 %) of respondents. The subscribers of UMS and UzMobile shares subscribers (18%).
and (9%) respectively. It is glaring evidence that LLC “Universal Mobile Systems” should enhance its market position by implementing new innovative approaches and making cheaper its own mobile services and so on.

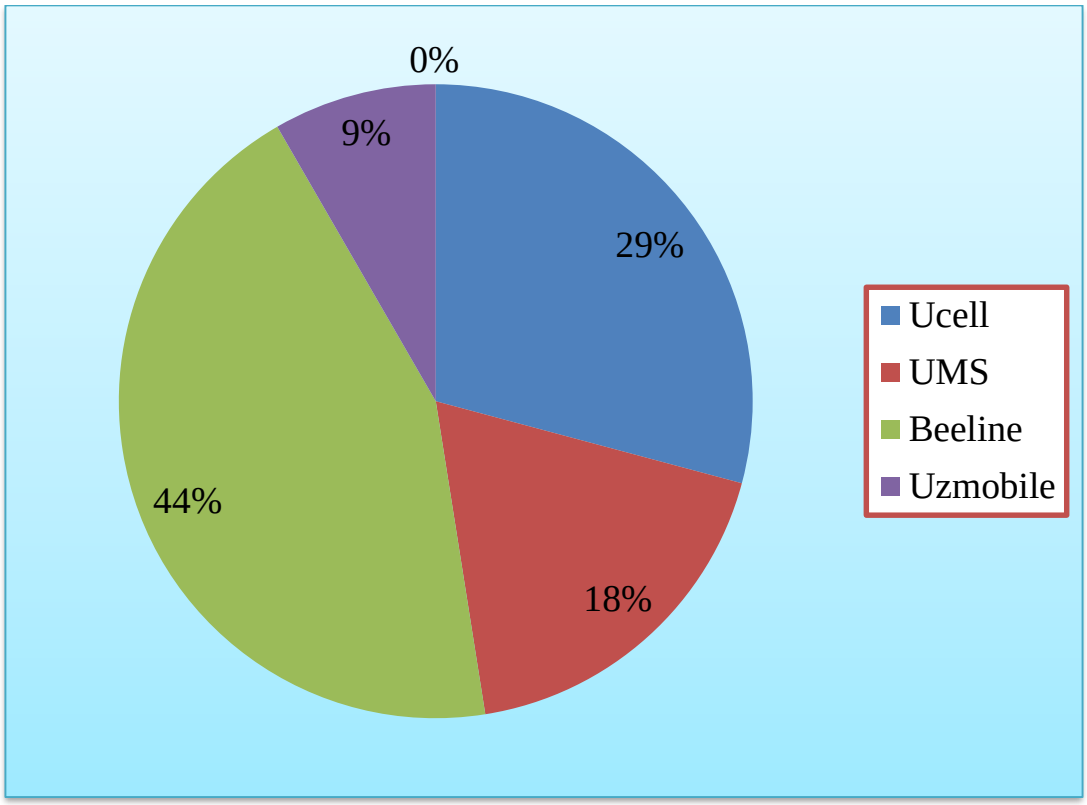


Figure 6. A percentagewise of subscribers

Source: author’s own calculations based on survey analysis

Moreover, it is anticipated that the future belongs to such mobile companies which will be able to compete in terms of innovation ideas and price policy, as we know that the most attractive niche for customers they are:

- attractive prices;
- value added services;
- convenience of usage;
- innovations in their mobile operators.

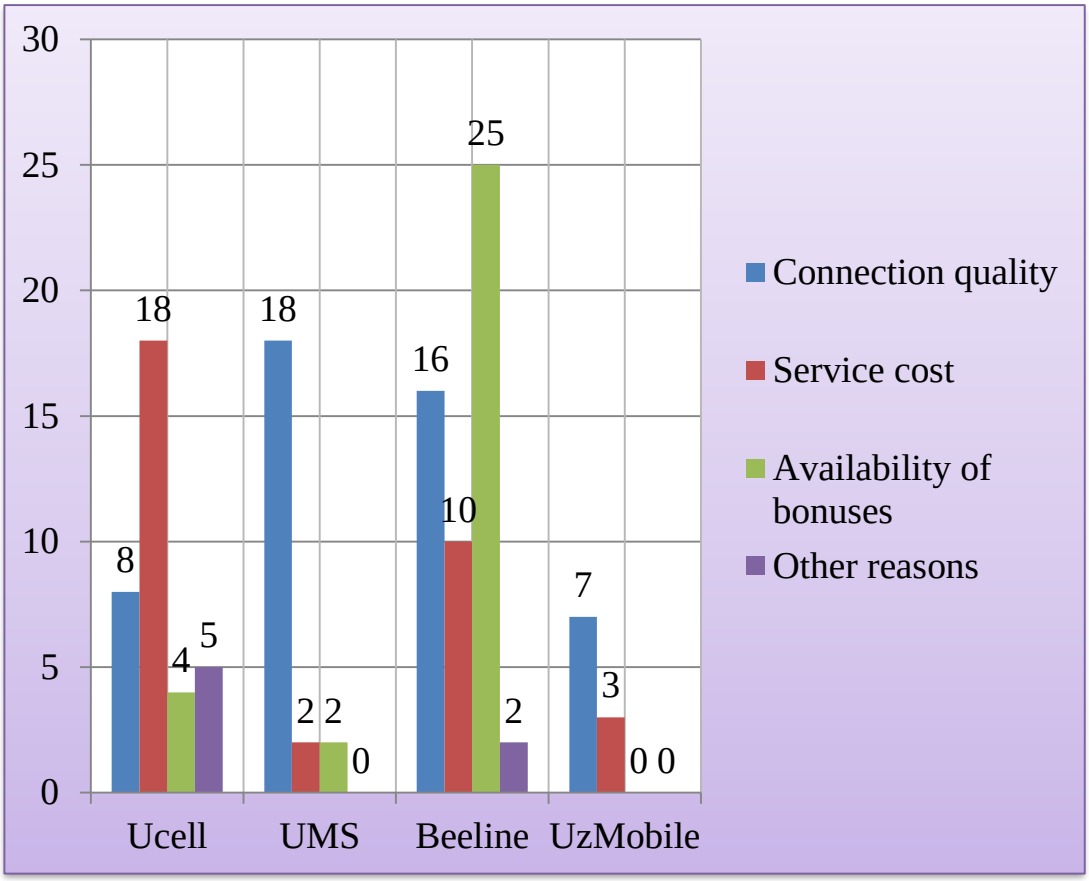
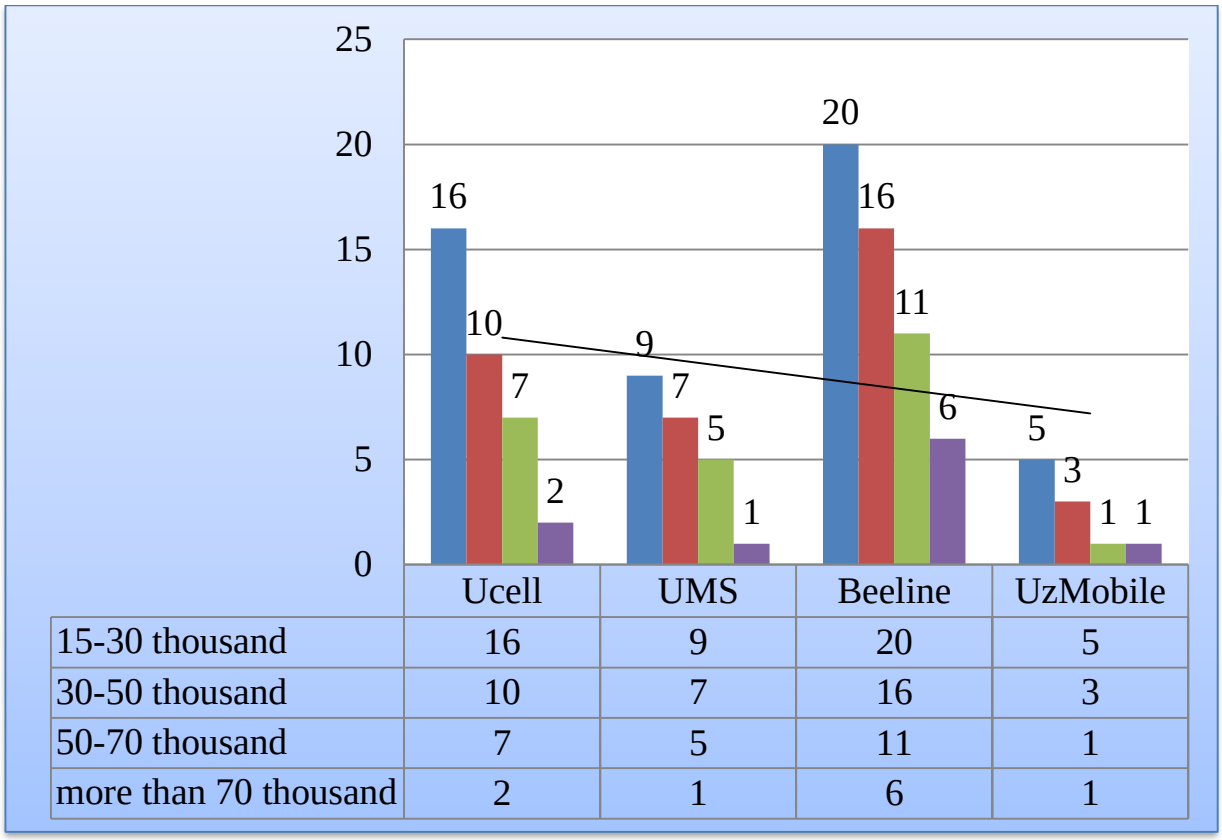


Figure 7. The main reasons of choosing mobile company

Source: author's personal calculations based on the answers of public survey

According to that Figure 5 we can surely claim that the main reasons of choosing among these companies completely different. For example, Beeline mobile company attracts its subscribers by making different bonuses like free mb, min, sms and so on. However, Ucell attracts by its service cost, the cheapest service cost belongs to this mobile company as respondents claim. UMS is the leader in terms of connection quality so that it is anticipated that the subscribers' rate will be increased in this company if they will be combine almost two categories from those. UzMobile as a new mobile company in telecommunication market, its results are not so impressive, however, as we know UzMobile subdivision of JSC "Uzbektelecom" so that, bright future will wait for this company.



	Ucell	UMS	Beeline	UzMobile
15-30 thousand	16	9	20	5
30-50 thousand	10	7	16	3
50-70 thousand	7	5	11	1
more than 70 thousand	2	1	6	1

Figure 8. Willingness to spend on a mobile operator

Source: author's own calculations based on survey analysis

According to the table, it is absolutely true that customers of mobile companies have tendency to spend less in the near future, it is evidenced by above table. Moreover in all companies subscribers would like to spend from 15 to 30 thousand sums for their mobiles. In fact, it is a complicated to make such decisions for mobile companies because our government buys internet traffic from external supplier. If we can establish our own satellite in the universe which demands tremendous investment in that case it is completely feasible of reducing cost of mobile services.

Apparently, mobile operators should hold the unique price among themselves in order to give free choice for customers while choosing one of them. Price regulation should be deeply analyzed and established making life better for their subscribers.

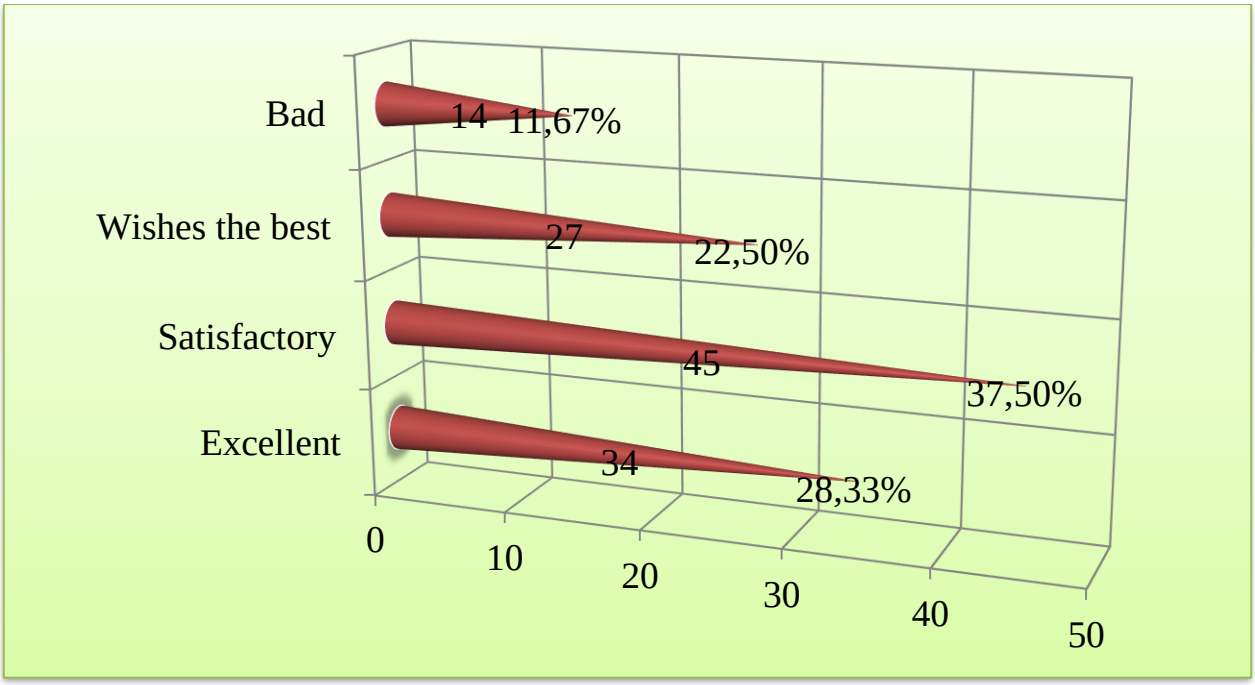


Figure 9. Quality of service when contacting the offices and the call centers of mobile company

Source: author's own calculations based on survey analysis

As that illustration shows that majority of respondents satisfy with the service of offices and call centers providing 37 % and 28 % of respondents has thought services are excellent. However, during analyzing public behavior I found out that 12 % chose bad category for this question, because when they call to call center they have to wait for 5 to 10 minutes which irritate them. I, personally, recommend for LLC "Universal Mobile Systems" to recruit more personal in order to work in call centers.

Besides, mobile operator should keep customer relationship management in order to be more attractive and preferable for new potential subscribers. In order to correspond for these characteristics mobile operator should pay attention for those:

- increase communicative skills of their staff;
- recruit more young ambitious personal;
- retraining their current employees;
- and so on.

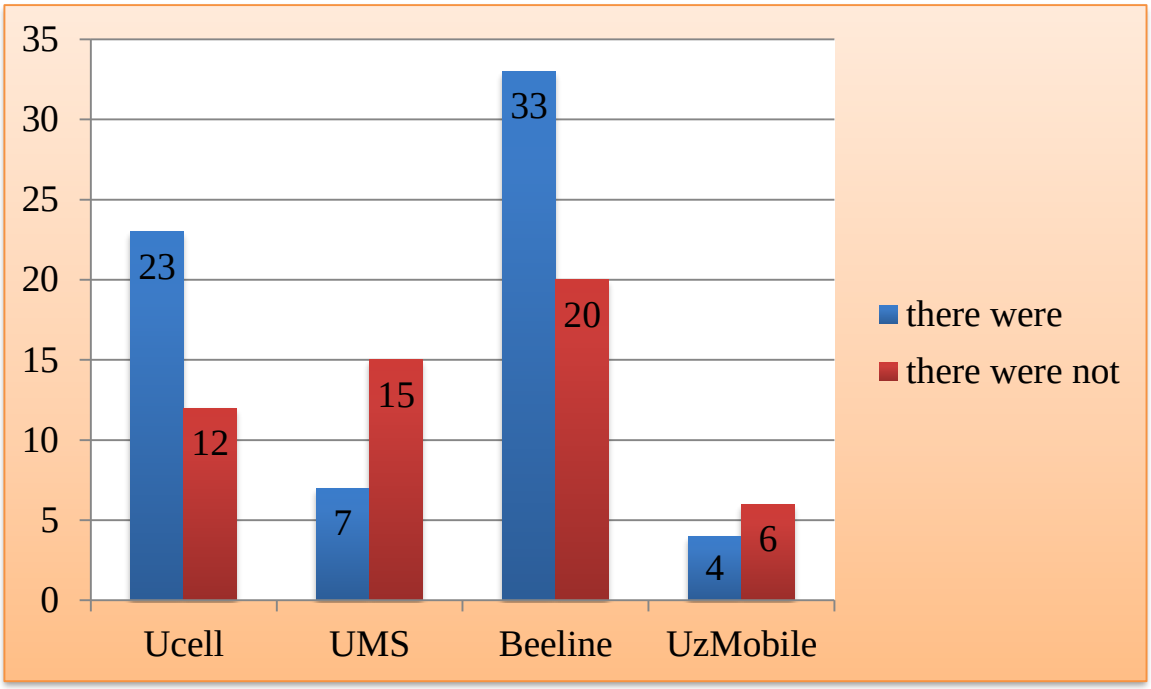


Figure 10. Arisen problems while using mobile operators

Source: author's own calculations based on survey analysis

As we can see from that diagram that the big proportion of subscribers belong to Beeline mobile company, undoubtedly the most of problems while applying its services are provided by Beeline, 33 subscribers of foreign company made problems against 20. Subscribers of Ucell and UMS also faced some kind of problems with 23 and 7 people respectively. The smallest segment in mobile companies, UzMobile have some problems more than half of respondents have faced some challenges.

Undoubtedly, the amount of suffering subscribers exceed the satisfied customers of mobile operators, it seems to us that majority of problems derives from the connection and internet speeds and others. In order to meet the needs of subscribers' desires, company should pay more attention to increase the number of base stations.

According to survey of further development of mobile company's economic efficiency and improving its quality respondents would like to see the following recommendations in mobile company.

Table 7

Recommendations for further enhancement of services of mobile company

Ucell subscribers	UMS subscribers	Beeline subscribers	UzMobile subscribers
More affordable prices	Reducing the price for traffic	Increasing the Internet speed	Reducing cost
Reducing the price for traffic	Increasing the speed of the Internet	Individual approach for subscribers	Improving communication
More bonuses	Improving the quality of call center	More minutes and more bonuses	Add mb and min for tariff plans as a bonus
More operators for call center	More varied bonuses	Improving communication	Free Wi-Fi zones near recreational zones and parks
More attention for subscribers	Wi-Fi router	Reducing the price for services	
Improving communication	Access to the connection inside of underground	Free mb	

Source: Made by author relying on respondents' recommendations

This table depicts what subscribers would like to see in their mobile operators such new amenities. In fact majority of respondents' opinion in most of circumstances are almost similar like enhancement of connection, reducing the price of internet, more bonuses and so on. More specifically, the subscribers of Ucell have counted their desires such as:

- more affordable prices;

- reducing the price for traffic;
- more bonuses;
- more operators for call centers;
- more attention for subscribers;
- improving communication.

The following recommendations have been provided by subscribers of UMS including:

- reducing the price for traffic;
- increasing the speed of the Internet;
- improving the quality of call center;
- more varied bonuses;
- Wi-Fi router;
- access to the connection inside of underground.

The third in a row is Beeline and its subscribers have a tendency to see:

- improving the internet speed;
- individual approach for subscribers;
- more minutes and more bonuses;
- enhancing the quality of communication;
- reducing the price for services;
- free mb.

UzMobile as well should listen for its subscribers' suggestions and make operative decisions in order to compete among mobile operators. Subscribers of this company have given their recommendations and they are:

- decreasing cost;
- improving communication;
- add mb and min for tariff plans as a bonus;
- free Wi-Fi zones near recreational zones and parks.

IV. LIFE SAFETY IN THE ECOLOGY

4.1. Psychophysiological stress on a person in the workplace

Modern economic science, in accordance with the methodology of A. Marshall, understands economic resources as land, labor, capital and human abilities. At the same time, the term "labor" refers to the time spent or the number of employees employed in the production of workers, in general form forming the labor potential of the society, which in turn characterizes the possibility of the labor person's participation in the production and distribution of material goods.

In the concept of "human resources" began to invest a deeper meaning than in the concept of "labor" and "labor resources." So, under the human factor, and, consequently, the notion of "human resources" means, first of all, the totality of employees of enterprises, organizations, institutions united by joint activities. At the same time, the human factor is the totality of the socio cultural, personal and psychophysiological characteristics and properties of workers influencing their labor activity, hence, the concept of "human factor" is more substantial and profound in its content, since the characterization of the humanistic approach characterizes the personality of the person in labor.

In modern conditions, the human factor is a special factor of production, endowed not only with production, but also with social, psychological, physiological capabilities and needs.

The increasing role of the human factor, and, consequently, of man as a resource of labor, is due at the present time to structural changes in market conditions.

The specific nature of human resources in modern conditions consists in our view in the following:

- this is a complex object of social and economic management;
- resources are determined not by quantitative, but by qualitative characteristics of the able-bodied population;
- the professionalization of activities requires increasing capital intensity for the formation of professionals.

Human resources include all of its qualitative characteristics - mental, physical, intellectual, psychological, moral, personal and many others. Some characteristics of the human resource are determined not only by the formation and complex of professional knowledge and skills, but also by personality traits, by personality traits that depend both on heredity and on the education of a person - in the family, social group, and society.

Important components of human resources include: the potential of labor mobility, the level of needs, the motivational characteristics of labor activity and such a crucial characteristic as the potential of physical and mental health.

The study of psycho-physiological characteristics of labor activity is one of the components of improving the level of health and, consequently, increasing the duration of a person's able-bodied activity.

In its most general form, all activities are "a specific human form of relations to the surrounding world, the content of which constitutes its expedient changes and transformations of the interests of people; conditions of existence of society ".

In general, taking this definition as a basis, we point out that it lacks an extremely important accent, connected with the fact that during the realization of activities a person modifies not only the surrounding world, but also himself. Therefore, activity is represented in the form of a process, on the one hand, an expedient transformation of the surrounding world, and on the other, an active change in the person's personality.

The physiological aspect of the labor process is in the form of material processes occurring in the human body when performing various works.

The psychological aspect of labor activity is considered in the context of psychological (ideal) phenomena accompanying the labor process, and the main task in this direction is the disclosure of "how in the process of this activity there is a subjective reflection of reality and what is the mechanism of mental regulation of activity. Its task is also to study the influence of activity on the development of psychological functions, processes, states and human properties ".

In the most general form, the individual labor process can be imagined as the transformation of the masses, energy and information by the person in the workplace.

In the psychophysiology of labor, the working capacity of the human body should be considered an adequate concept. From this point of view, the most acceptable is the characterization of this category by Professor V.V.Rosenblat- "Work capacity - the value of the functional capabilities of the body (physiological system, organ), characterized by the quantity and quality of work at a voltage of maximum intensity or duration. Its components are: a) the maximum possible physiological costs; b) the effectiveness of these costs, that is, the efficiency of the physiological object. Decrease in efficiency at fatigue occurs due to each of these parameters ". The definition is objective with some additions. First, one should keep in mind, under the totality of spiritual and physical abilities for the completion of the labor process, the ultimate psycho-physiological costs of the organism, which we define as "general working capacity".

The second component of overall efficiency is the effectiveness of the maximum psychophysiological costs, that is, the ratio of the amount of labor produced at the maximum workload to the maximum psychophysiological costs. This efficiency at extreme loads from our point of view represents efficiency of work. Thus, the concept of "overall performance", expressed by the ratio of the maximum workload to the maximum psychophysiological costs, is related to the concept of "labor efficiency" in the labor economy.

Life safety is a major feature for all enterprises. In LLC “Universal Mobile Systems” today working the disciplines of safety. Human being is strongly protected from outside troubles. Upon completing this part, you will be able to learn life safety, labor protection at the enterprise, and up-to-date statement of enterprise. To achieve this goal, I should be able to:

- inform about group of unexpected events;
- inform about location of enterprise, possibilities, dangers;
- inform about accomplishments and possible finance to fulfill them;

Enterprise should be constructed with well-providing of lightness and airing the rooms and workshops. Naturally airing of the whole building is dominant element of enterprise. Especially in enterprise composed many accomplishments with assistance of department of community. They are:

- accomplishments that directed to protect from dangerous events. For example, controlling the whole process with tools, this regulates danger that could appear. Moreover, providing with transport for transmitting the labor force (labor who works in part time are using this), moreover, to mechanize the accomplishments that hard or dangerous for health.
- accomplishments that directed to prevent illness at the work period. Except this to build fountains, water-drinking pipelines, to provide vacant rest rooms, to place water-purified mechanisms, to buy the means that protect from noise and pulling-out.
- accomplishments that directed to improve working conditions. Moreover, to mechanize the rooms concerning labor safety, to show curriculum, movies for personnel, to edit some brochures about safety devices.

Psychophysiological pressures:

Monotony or monotony - a person's mental state, caused by the monotony of perceptions or actions. Two types of monotony:

- monotony due to information overloading of the same nerve centers as a result of the arrival of a large volume of identical signals with repeated repetition of uniform movements (for example, work on conveyors with small operations);
- monotony caused by monotony of perception, due to the persistence of information and the lack of new information (for example, prolonged monitoring of instrument panels in anticipation of an important signal).

Fatigue is the process of lowering efficiency, a temporary decline in forces that occurs when performing a certain physical or mental work.Distinguish:

- rapidly developing fatigue (primary) - occurs as a result of work that requires considerable physical effort or considerable stress;

- slowly developing fatigue (secondary) - characterized by a gradual decline in performance due to habitual, but extremely long and monotonous work.

To prevent fatigue:

- optimal organization of the working and rest regime;
- rational organization of the labor process;
- effective training for the purpose of rapid mastering of work skills.

Working posture. The basic postures of a person of interest to production are the poses of "standing" and "sitting", which should be taken into account when designing the workplace and work posture corresponding to this type of work. It is necessary to strive to ensure that the working posture is as close as possible to the natural position of the person, because the latter is characterized by the lowest energy costs in comparison with the derivatives of their poses.

Overload emotional and mental. Mental activity (like muscular) is the activity of the central nervous system in the first place, its higher part is the cortex of the human brain. When working mentally, as in the case of physical activity, metabolic processes change, but the increase in total exchange is insignificant (no more than 10-15%); in contrast to physical work with mental work, there is narrowing of the vessels of the extremities and expansion of the vessels of the internal organs, the pulse varies insignificantly. At the same time, if mental and emotional stress is required for mental work, significant changes in blood pressure, pulse, and increase in blood sugar levels are possible.

Stress is a reaction to adaptation to extreme, extreme conditions, both physiological and mental. To ensure the safety of labor, it is necessary to organize the production process so that it excludes stress. It is necessary that in emergency conditions stress does not cause wrong actions and does not worsen the production environment.

Hypodinamy is a violation of the functions of the body (musculoskeletal system, circulation, respiration), while restraining motor activity, reducing the forces of resistance of muscles. Prophylaxis of hypodynamia involves industrial gymnastics, etc.

The severity of work (SW) is an indicator, with enough accuracy to take into account the "different quality" of all elements of working conditions. The legality of the use of such an indicator is due to the fact that the human body responds equally to the effects of a wide variety of combinations of elements of working conditions. Equal changes in the body of workers can be caused by various causes (any harmful environmental factors, excessive mental or physical stress, etc.).

SW characterizes the cumulative effect of all the elements that make up working conditions, on the working capacity of a person, his health, vital activity and the restoration of labor. The concept of SW is applicable to both mental and physical labor.

The degree of TT can be judged by the reactions and changes in the human body. They serve as an indicator of the quality of the working conditions themselves.

At present, there are objectively justified the existence of 6 categories of severity of work, which correspond to 6 groups of working conditions.

The first category of gravity includes work performed under optimal conditions of the external production environment and at the optimal value of physical, mental and neuro-emotional load. The reaction of the body indicates the optimal version of normal functioning.

The second includes works performed in conditions when the maximum permissible concentration (MPC) and maximum permissible levels (PDU) of harmful and dangerous production factors do not exceed the requirements of normative and technical documents.

The third category includes work performed under conditions in which practically healthy people experience reactions that are characteristic of the borderline state of the organism. There is a slight decline in production indicators.
The fourth category of severity includes work in which exposure to hazardous and harmful factors leads to the formation of a deeper border state in practically healthy people. Most of the physiological parameters deteriorate.

The fifth category of severity includes work in which, as a result of very unfavorable working conditions at the end of the working period (shifts, weeks), reactions characteristic of the pathological functional state of the organism in practically healthy people are formed, disappearing in most workers after a full rest. However, in some people they can go into production-conditioned and occupational diseases.

The sixth category includes works performed in particularly critical working conditions. At this pathological reactions develop very quickly, can be irreversible and are often accompanied by severe impairment of the functions of vital organs.

The main measures to reduce the influence of monotony on a person:

- The design of the technological process must be carried out in such a way as to make each operation meaningful, of interest to the performers. It is recommended to combine low-level operations into more complex and diverse;
- Carry out the transfer of workers from one to another production operation. Alternation of workers must be carried out during the shift or working week;
- It is necessary to apply optimal working and rest modes during the working day (shift). In addition to the break for meals, appoint additional short breaks for the whole shift, team or individual employee;
- Establish a variable rhythm of the conveyor during the working day (shift). The forced rate of work is inadmissible;
- It is necessary to observe the aesthetics of production and to carry out the functional musical design of the production process.

4.2. Electromagnetic pollution of the environment

The main sources of EMF of anthropogenic origin are television and radar stations, powerful radio engineering objects, industrial technological equipment, high-voltage power transmission lines of industrial frequency, thermal shops, plasma, laser and X-ray plants, nuclear and nuclear reactors, etc. It should be noted man-made sources of electromagnetic and other physical fields of special purpose,

used in electronic countermeasures and placed on stationary and mobile objects on land, water, under water, in air.

Any technical device using either generating electrical energy is the source of EMF emitted into the external space. The peculiarity of irradiation in urban conditions is the impact on the population as a total electromagnetic background (integral parameter) and strong EMF from separate sources (differential parameter). The main sources of electromagnetic fields (EMF) of radio frequencies are radio engineering objects (RTO), television and radar stations (radar stations), thermal shops and areas in zones adjacent to enterprises. The impact of EMF of industrial frequency is connected with high-voltage lines (OHL) of electric transmissions, sources of permanent magnetic fields used in industrial enterprises. Areas with elevated levels of EMF, whose sources can be PTS and radar, have dimensions up to 100 ... 150 m. At the same time, within the buildings located in these zones, the energy flux density, as a rule, exceeds the permissible values.

Electromagnetic pollution of the environment became possible solely due to human activities and after the "second stage" of the industrial revolution. The beginning of this stage is associated with the ingenious and scandalous inventor Serb Nikola Tesla, namely with his work on the creation of devices, alternating current, electric motors, other inventions in the field of radio and electrical engineering, the study of high frequency currents, and experiments with a mechanical oscillator and resonant frequency .

Definition of concepts, the electromagnetic field is a set of electric and magnetic fields generating each other during the interaction of electrically charged dipole and multipole bodies. A wave is a change in the state of an electromagnetic field propagating in space. They are: super-long or radio waves, terahertz, infrared, visible light, ultraviolet, X-ray and hard or gamma. Waves are spread everywhere, including in a vacuum. Radiation is a characteristic of the attenuation of the field as it moves away from the source of origin. Depends on the wavelength. It practically extends without fading over huge distances, even in space filled with matter.

Natural influence, electromagnetic background was an indispensable condition for the existence of all life on Earth. Organisms did not need to react in a special way to it and adapt themselves. He was ordinary and habitual.

The emergence of artificial sources of influence, at present, the electromagnetic influence on people and the environment has changed from "probabilistic" to real. And this happened with the introduction of industrial inventions in the field of electromagnetic fields, including Tesla. There appeared such radiation sources, whose wavelengths did not exist in the natural environment.

Any device that generates or uses electrical energy is the source of electromagnetic radiation. These are television and radar stations, high-voltage power transmission lines of industrial frequency, X-ray, plasma and laser installations, nuclear and nuclear reactors, thermal industrial workshops and much more. For a man, a powerful source of radiation has become mobile communication.

All that was unnatural became a source of pollution, and along with this a concept appeared - "electromagnetic pollution of the environment".

There were even the concepts of "electromagnetic smog". This negative impact on living organisms low-frequency and ultra-low-frequency radiation from devices producing, transmitting or using electromagnetic energy. This smog can be in open terrain, indoors or from mobile devices. It is characterized by multifactority, that is, the impact of several sources simultaneously.

The influence of natural electromagnetic fields, waves and radiations was felt by man at all stages and in all spheres of his life activity. This property was attributed to stones. Precious and semiprecious, they had a positive or negative impact on the health and fate of the person who carried them.

Impact on the environment, the exact mechanism of the effect of this type of radiation on a living organism is unknown. First of all, the membrane structure of cells undergoes its influence.

Electromagnetic pollution begins with a common for all living component - water. The impact on it is of decisive importance. Under the influence of the field,

the property of water changes, which affects the rate of reactions that take place in the body.

At the cellular level, the most sensitive to various physical and chemical irritants and impacts is the membrane. Even insignificant electromagnetic irradiation entails morphological and functional disturbances in it. The energy of the cell field as a result of this is transformed into other species, and the cell can increase in size.

Weak fields, up to the thermal threshold, change living tissue and worsen its regeneration. Under the action of an alternating electric field, it heats up. The longer and under a higher voltage is, the more it is heated. The structure of the tissue also affects the degree of its heating. Particularly sensitive to the heating of such organs of animals: the brain, kidneys, urinary and gall bladder and organs of vision.

Microorganisms are very sensitive to even weak electromagnetic fields. When exposed to a field, this is manifested in a decrease in motor activity, ability to survive and, accordingly, increased mortality. Moreover, irradiation can cause mutations.

Plants react to weak and strong fields. As a rule, this reaction affects the growth and reproduction functions. Changes in the shape and size of the leaves, flowers and stems of plants growing under the power lines, as well as the growth of trees growing nearby. Ultra-high-frequency radiation on potatoes and wheat yield losses did not cause them. The different impact on the plant world, as the main source of oxygen and nutrition on Earth, is already a strong argument to begin more multilateral studies.

The insects that live in the plant world react in their own way to the effects of radiation. Some species, depending on the structure of the body and the way of life, slow down their development and growth, there may be loss of orientation or increased aggression. But the main reaction is the desire to avoid the influence of the field of power lines. If we are talking about the effect of microwave radiation,

then, as a rule, it causes a lethal outcome, which indicates a lesser resistance of insects to this type of radiation than plants.

It is established that under the influence of the electromagnetic field, the central nervous system of birds and animals suffers, first of all. In rats it causes a change in the general condition, a metabolic disorder, intrauterine and postnatal fetal development in females, and in males it appears infertility. In other species of mammals, similar effects are not observed. Such as sheep. If pigs exposed to radiation experienced anxiety and discomfort during sleep, the cows increased mortality in calves or they were born with abnormalities.

It is characteristic that the bird does not nest near radar stations. Impacts on different species of animals are not of the same nature and may affect the ratio of species within the same ecosystem. And this necessarily leads to an imbalance and a violation of its stability, and then, perhaps, its change and disappearance.

The influence of the electromagnetic field on water and soil ecosystems has been poorly studied, and the studies carried out have shown the stability of these systems and the weak radiation effect on them.

Normative regulation, there is a legal concept of electromagnetic pollution. It concerns the use of radio waves outside the permitted ranges or exceeding their level. This is monitored by international bodies, such as the World Health Organization (WHO), and national government institutions and supervisory bodies.

The human need for more energy leads to an increase in the production of its sources. Technologies are developing, production of equipment is increasing, which is increasingly filling people's homes. According to WHO, electromagnetic pollution of the environment by level, today is approaching pollution by chemicals.

CONCLUSION

Today it is difficult to imagine modern life without information-communication technologies. In short, these technologies have changed our perception of our ability to communicate through various communication systems and ways of getting information. Currently ICT is widely used in all spheres of public life - in public administration, economy, medicine, education, science and culture, in the daily life and in other spheres. Without any exaggeration, the country cannot successfully develop socially and economically without developing information and communication technologies.

Mobile services have been rapidly developing for several years. There are five mobile operators in the country. The number of mobile subscribers in Uzbekistan in March, 2017 will increase to 21.4 mln. exceeded. In April 2017, 18.3 thousand mobile satellites were installed in the country to cover mobile coverage of the country. This figure exceeded 20,000 during the year. Foreign experts say that for the second year in a row, Uzbekistan is one of the top ten countries in the world with a high "mobile communication development index". Today, all mobile operators in Uzbekistan have begun expanding the 4G network. In 2017, it is planned to build base stations in 1.5 thousand. Nowadays, people cannot imagine themselves without cellular communication because it is inconvenient to walk without a cell phone in the workplace, on the street, and almost all over the world. The development of cellular communication is definitely bound to Uzbekistan mobile operators. By the way, Beeline, Ucell, UzMobile, PerfectumMobile and UMS, with the excellent performance of its services, will further develop mobile communication in the country. Among them are Beeline leaders. The number of its subscribers in 2016 is 9.5 million people. Investments of foreign investors into our country will increase, which means additional workplaces and income growth. Uzbekistan is on the third place in the world in terms of affordable cellular communication services and 9th in terms of quality of communication. These indicators also represent Uzbekistan in the world. The government's attention to

the ICT sector is not accidental as the 21st century is the age of information technology, as President Islam Karimov said.

Further deepening of innovations in telecommunication market is becoming more and more an integral part of social and economic reforms in the Republic of Uzbekistan. In fact, the introduction of modern information technologies will create a wide range opportunities for human –being of country.

In this regard, based on the results of conducted survey among population, the following recommendations are provided:

- to re-structuring the department of marketing in the company;
- to specialize selling numbers with further delivering mobile number to client address;
- more affordable prices;
- reducing the price for traffic;
- more bonuses;
- more operators for call centers;
- free Wi-Fi zones near recreational zones and parks.

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APPENDIX 1.

QUESTIONNAIRE

After the completion of the questionnaire please return it to the person who gave it to you.

The main purpose of the survey is identifying public desires in terms of their mobile company. Accordingly, what they would like to see in the near future as an innovative services.

1. **What age group do you belong to?**

a) from 16-25 years old _____

b) from 25-35 years old _____

c) from 35-45 years old _____

d) over 45 years _____

2. **Which cellular operator do you belong to?**

a) Ucell _____

b) UMS _____

c) Beeline _____

d) UzMobile_____

3. **The reason for choosing this operator?**

a) Connection quality _____

b) Service cost _____

c) The presence of bonuses _____

d) Other_____

4. **How much are you willing to spend on a mobile operator?**

a) from 15-30 thousand sums _____

b) from 30-50 thousand sums _____

c) from 50-70 thousand sums _____

d) over 70 thousand amounts _____

5. **Have you faced any difficulties with your mobile company?**

a) Yes _____

b) No _____

c) _____

6. Quality of service when contacting the offices and the call center?

a) Excellent _____

b) Satisfactory _____

c) Wishes the best _____

d) Bad _____

7. Are you ready to recommend this operator to your friends?

a) Yes _____

b) No _____

8. Your recommendations and suggestions for further improvement of activity of MC.

_____

All the information provided will be held under strict confidentiality!

The answers are used only for academic purposes.

Thank you for your time and contribution!