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Content

Operation Research and Decision Making		
Jevgenija Dehtjare, Viktoriia Riashchenko	Social Entrepreneurship: issues and trends	**7**
Tatyana Shamshina, Catherine Koryuhina	Open education: continuity of approaches and risks	**12**
Zhanna Kulmagambetova, Marga Zhivitere	Social Franchising of private clinics in Kazakhstan	**16**
Viktoriia Riashchenko, Marga Zivitere, Liubov Kutyrieva	The problems of development of the Ukrainian tourist market and ways of their solutions	**21**
Zhanna Tutkusheva, Sultanbek Tultabaev, Marga Zhivitere	Possibilities for creation of an entrepreneurial university in Kazakhstan	**27**
Arman Kussainov	Use of system dynamics and simulation in modelling and analysis of vaccine supply chain management	**32**
Sultanbek Tultabaev, Marga Zhivitere, Sagadat Sabitova	A technique of research of expectations of consumers of services of small and medium business in RK	**38**
Sultanbek Tultabaev	Mechanism of organizations adaptive behaviour to external medium	**45**
Natalya Baigazina	State regulation of tariffs for services of the main rail network in Kazakhstan	**54**
Talgat Uteubayev, Nurlan Kurmanov	Motivation of employees' labour activity in companies in Kazakhstan	**60**
Tatyana Fedartsova	Potential and prospects of development of agro-, ecotourism, its role in the revival and sustainable development of rural areas of Belarus	**65**
Valentina Dyakona	Genesis of the Theory of Intellectual Capital and Its Importance in Modern Economy	**68**
Author's Index		**72**

Social Entrepreneurship: issues and trends

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Abstract

An aim of this abstract is to investigate phenomenon of social entrepreneurship. It takes into consideration its establishment factors, history of development, types of entrepreneurial activity that might be classified as social entrepreneurship; points most successful young entrepreneurs during recent years, gives examples of NGO foundations and awards established to underline success in this area of business. Second part of the abstract analyse issues and trends of social entrepreneurship activity in Latvia, based on the Latvian inhabitants survey and their attitude to this field of societal and business activity.

Keywords: social entrepreneurship, NGO, foundation, non-profit

1 Introduction

According to the Maslow`s pyramid human beings are ready to share their resources and gained knowledge when they reach esteem and self-actualization level, the highest in the hierarchy. Only when others, more primary needs are satisfied, humanity is able to respect others, to share skills with them, to solve problems, to accept and support those not similar to them. It seems obvious the development of our civilization reached this level at the beginning of the 21st century as concept of social entrepreneurship is popular than ever before. The idea when profit is gained it is possible and even desirable to share received contribution with others took minds of the progressive people from many countries. Every year grows amount of NGO – non government organizations, associations, foundations and private companies which announces themselves as belonging to social entrepreneurship and supporting other companies involved in this area of a business. It is officially admitted already that social entrepreneurship doesn't matter nonprofit or voluntary activity, it is possible and acceptable to gain profit and to remain socially active and beneficial at the same time. Legislation of the countries should be changed altogether with an approach to taxation and other evaluation of this field of the business. Latvia also remains as an area where social entrepreneurial activity takes place and amount of involved organizations grows annually. The aim of this abstract is to investigate both issues and trends of social entrepreneurship in Latvia and abroad.

2 Definition, types, representatives

Social entrepreneurship is the attempt to draw upon business techniques to find solutions to social problems. Conventional entrepreneurs typically measure performance in profit and return, but social entrepreneurs also take into account a positive return to society. Social entrepreneurship typically attempts to further broad social, cultural, and environmental goals are often associated with the voluntary sector [1].

Ashoka, the largest network of social entrepreneurship worldwide, has following vision on social entrepreneurship and its role in the modern society: "Social entrepreneurs are individuals with innovative solutions to society`s most pressing social problems. They are ambitious and persistent, tackling major social issues and offering new ideas for wide-scale change. Ratner than leaving societal needs to the government or business sectors, social entrepreneurs find what is not working and solve the problem by changing the system, spreading the solution and persuading entire societies to move in different directions. Social entrepreneurs often seem to be possessed by their ideas, committing their lives to changing the direction of their field. They are visionaries, but also realists, and are ultimately concerned with the practical implementation of their vision above all else. Social entrepreneurs present user-friendly, understandable and ethical ideas that engage widespread support in order to maximize the number of citizens that will stand up, seize their idea and implement it. Leading social entrepreneurs are mass recruiters of local change makers – role models providing that citizens who channel their ideas into action can do almost anything" [2].

Types of social entrepreneurship:

1. The Leveraged Non-Profit: This business model leverages resources in order to respond to social needs. Leveraged non-profits make innovative use of available funds, in order to impact a need. These leveraged non-profits are more traditional ways of dealing with issues, though are distinguished by their innovative approaches.

2. The Hybrid Non-Profit: This organizational structure can take on a variety of forms, but is distinctive because the hybrid non-profit is willing to use profit to sustain its operations. Hybrid non-profits are often created to deal with government or market failures, as they generate revenue to sustain the operation outside of loans, grants, and other forms of traditional funding.

3. The Social Business Venture: These models are set up as businesses designed to create change through social means. Social business ventures evolved through a lack of funding - social entrepreneurs in this situation were forced to become for-profit ventures. In places like the United States, this model is friendly to environmental entrepreneurs,

due to the available market opportunities [3].

There are following historical examples of social entrepreneurs known in the society:

1. Susan B. Anthony, US, fought for women`s rights in the US.
2. Dr. Maria Montessory, Italy, developed the Montessori approach to early childhood education.
3. Florence Nightingale, UK, founder of modern nursing, established the first school for nurses and fought to imptove hospital conditions.
4. John Muir, US, naturalis and conservationist, established the National Park System.
5. Jean Monnet, France, was responsible for the reconstruction of the French economy following the WW II [3].

Going back to the present days, there are following young social entrepreneurs with the brightest future, mentioned by the Forbes (just some most impressive examples).

1. Hugh Evans, 29, launched The Global Poverty Project in 2008, which is committed to ending extreme poverty conducted by various actions online – such as tweeting about poverty or watching educational videos – what allowed to earn points that could be redeemed for tickets.
2. Jason Aramburu, 27. He uses biochar to help farmers in East Africa fight climate change and grow more food. Biochar is made from crop and animal waste; for a $60 investment, a farmer saves $200 annually, boosts crop yield 26%, and reduced chemical fertilizer consumption by 80%.
3. Simone Bernstein, 20, and her brother Jake, 18, created a website that listed all the volunteer opportunities for teens. This leaded to launching a national website, volunTEENnation.org, with roughly 7500 young followers and this number continue growing [4].

In total, Forbes mentions about 30 of young entrepreneurs who established their business with large social contribution in US. However, social entrepreneurship has a long time tradition in Europe as well. In 2013, by the support of the European Commission the portal with the aim to join social entrepreneurs was established: SEE, Social Enterprising Europe. It joins more than 50 social businesses across the Europe from following countries: Switzerland, Spain, Belgium, the UK, Italy, Former Yugoslav Republic of Macedonia. On the website, Socialbiz.eu, which is a part of the project, both with holding conferences and other events for social entrepreneurs is possible to find also the list of the organizations that can help to the social entrepreneurs to make their first steps. There is information about different foundations, supporting this area of business, such as:

1. The Skoll Fundation (www.skollfoundation.org), benefits communities around the world by investing in, connecting and celebrating social entrepreneurs. The Foundation has awards programs and presents their recipients on its website.
2. The Schwab Foundation (www.schwabfound.org), provides unparalleled platforms at the regional and global level to highlight and advance leading models of social business.
3. Ashoka (www.ashoka.org), a global organization that identifies and invests in leading social entrepreneurs – individuals with innovative and practical ideas for solving social challenges.
4. Grameen Foundation (www.grameenfoundation.org), helps the world's poorest, especially women, gain access to financial services, life-changing information and unique business opportunities.
5. NEF (www.neweconomics.org), the new economics foundation is an independent think-and-do tank that inspires and demonstrates real economic well-being.

3 Resources

There are also useful resources, such as networks and websites established in order to support social entrepreneurship in Europe:

1. Technet (www.technet-berlin.de) A network of people engaged in regional and local development in technology, employment and development (in German).
2. EMES (www.emes.net) A network of researchers and graduate students on social enterpreneurship.
3. Le Mat (www.lemat.coop) A social brand to promote social tourism.
4. European Network (http://european-network.de/englisch/aims.htm) European Network for Economic Self-Help and Local Development.
5. European Commission (http://ec.europa.eu/internal_market/social_business/index_en.htm) Page of the European Commission on Social Entrepreneurship [5].

Social entrepreneurs and their initiatives can be also awarded by the following worldwide recognized awards:

1. The Global Social Venture Competition (www.gsvc.org) GSVC is the biggest wolrdwide competition of social busines planning, and it is organized by national chapters.
2. Brookes University Social Entrepreneurship Award (http://www.brookes.ac.uk/business-and-employers/social-entrepreneur-awards/) An award for social entrepreneurs from Brookes University, UK.

Social economy in Europe is a large part of the business. Today, the social economy represents 10% of all European businesses and employs over 11 million paid employees. However, the social business is united under the most common challenge, which is: funding. Because of their unique mix of social goals and business techniques, banks and other financial intermediaries are often unfamiliar with the needs of social businesses or have difficulty in assessing the risk of investment. The European commission fully understands the gap between the needs of the social entrepreneurs and limited funding possibilities. There are two main challenges focusing the funding of the social entrepreneurs:

1. Funds dedicated to investing in social business can be costly and difficult to set up and gather investments
2. Funds which concentrate on investing in social businesses are not always easy to identify or distinguish from other funds, and it can be confusing for investors to compare the advantages of different funds or working out how effective a particular investment might be in supporting social businesses.

That is why it was proposed by the European Commission to invent a recognized brand for social entrepreneurship funds: European Social Entrepreneurship Funds. Funds that market themselves using this brand would

have to invest at least 70% of their money in social businesses. With this label, investors will know that the majority of their investment is going into social businesses. In addition, the common EU-wide brand will make it much easier for investors throughout the EU to locate these funds. European Social Entrepreneurship Funds will also act as a passport. Once a fund has provided the required information and follows some key requirements on how to organise and conduct themselves, it would have the right to gather investments from investors across the whole EU without incurring major costs. They would be supervised – to ensure they follow the rules – by the authorities in the Member State where they are based. These funds would provide new opportunities for private individuals and professional financial services investors to help fund social businesses, adding to support already available from funds, banks and public bodies. It is prospected that following benefits will be available both for social business representatives, professional investors and investment managers:

1. Social businesses will get easier access to private finance, helping support their growth. This will benefit many ordinary citizens: creating inclusive and sustainable jobs and growth across Europe.

2. Professional investors will find it easier to identify and choose funds that are targeting investments in social businesses (European Social Entrepreneurship Funds).

3. Investment fund managers will find it less costly and complex to raise funds, including cross-border, and will find it easier to distinguish their social entrepreneurship funds from other kinds of funds [6].

European Social Entrepreneurship Funds was established in 2013 and is starting its activity with the aim to offer its services to the entrepreneurs across the Europe.

4 Trends

As is seen, most of the startups are building basing on the usage of modern internet technologies. The Internet and social networking websites have been pivotal resources for the success and collaboration of many social entrepreneurs. In the twenty-first century, the Internet has become especially useful in disseminating information in short amounts of time. In addition to this, the Internet allows for the pooling of design resources using open source principles. These media allow ideas to be heard by broader audiences, help networks and investors to develop globally, and to achieve their goals with little or no start-up capital. For example, the rise of open-source appropriate technology as a sustainable development paradigm enables people all over the world to collaborate on solving local problems just as open source software development leverages collaboration [1].

Some trends for the next 10 years, what should be expected by the social entrepreneurship:

1. Commerce as a way of combating poverty. Customers do care about sustainability. Startups, business incubators, deals as “buy one give one” to drive sales and do good at the same time. On third of the global consumer class, according to BBMG report [7] love shopping (78%) at the same time with their readiness to act in the best interest of the society (58%).

2. Crowdfunding – highly preferred choice by the entrepreneurs to start their business. Examples: Kickstarter, Indiegogo and others. Funds raised by this manner give entrepreneurs better flexibility and freedom to build their start ups on the way they want, comparing to the strict bank limitations.

3. Data, its gathering and analysis is extremely important nowadays. Easiness of the tools, communication and services offered by Google Analytics, Facebook, Twitter, CRM data bases. Marketing and other data help to take better decisions and should be analyzed daily. Many more data digging resources will arrive to the market soon. Many of them will get funds using crowdfunding resources.

4. Transparency is especially important for the social business as its part should be dedicated to give a benefit for a wide public, and the public want to see where it goes and how.

5. Crowd brainstorming, possible online or as voluntary meetings, when people joined by one common idea get together to discuss it with further impact on its implementation. Is also known as “Hackathons”, as HackEd, organized by Facebook group of 150 people who got together to create an app to help people to get into and stay at a college.

6. Visual marketing attracts people as is a part of entertainment by itself. People nowadays are more responsive on pictures than a text. Excellent example – Ice Bucket Challenge.

7. Design when many gadgets have similar functions plays success driving role.

5 Social entrepreneurship aspects in Latvia

The concept of social entrepreneurship in Latvia is still under development, therefore we have a unique opportunity to build it exactly the way we need it. This statement is a quota from the mission of „Sabiedriskās politikas centrs PROVIDUS”, founders of the online portal socialauznemejdarbiba.lv, foundation of social entrepreneurship support in Latvia. The foundation supposes there should be following requirements to social entrepreneurs in Latvia:

1. The company's goal is to address socially important problems, creating measurable and useful benefits to the public.

2. Activities of social enterprise are organized according to commercial practice - creating goods and providing services in the market.

3. Social enterprise profits are channeled to achieve social goals, business development or to build reserve fund.

4. Employees must receive adequate and appropriate salary for their work.

5. Management methods and ownership of social entrepreneurship relies on democratic and participatory principles - corporate governance may consist of employees and stakeholders

6. A company can only get special social entrepreneurship status if it meets all of the characteristics and features in this list [8].

The foundation also supports „Labas Gribas” (Good Will) award of social entrepreneurship company of the year, social foundation RH3 is the winner of the year 2014. Other social entrepreneurship companies, supported by this

foundation, are porcelain mugs producers JŪHŪ, educational portal MAMMAMUNTETIM.LV, "Žēlsirdības māja" - home for young people for disabilities, HOPP – tricycles for people with disabilities. The foundation provides and supports seminars where is also described how social entrepreneurs can get support from the EU ERASMUS + lifelong program.

A legal framework for social entrepreneurship in Latvia has to be created so as to not only support establishment of new social enterprises, but also to help successfully expand the already existing ones.

Other programs and foundations that support social entrepreneurship in Latvia:

Baltic sea countries joint program INTERREG, http://www.centralbaltic.eu/

1. Programs of Society Integration Foundation, as Non-government organizations project support program (2009-2014), dedicated to micro projects http://www.sif.lv/index.php?option=com_content&view=article&id=9418&Itemid=121&lang=lv#seminari.

2. Programs of Society Integration Foundation, as Non government organisations co-finance program 2014-2016 .http://www.sif.lv/index.php?option=com_content&view=category&id=389&Itemid=127

3. Riga City Council department of education, culture and sport program http://www.iksd.riga.lv/public/40972.html.

4. Association of Women with disabilities "Aspazija" in association with Teterev foundation http://aspazija.lv/jaunumi.

There are also other non-governmental organizations, foundations and societies that support social entrepreneurship in Latvia. Some of them can be sponsored by private persons, companies and even agencies of other, non EU countries, such as NEW D(o)or initiative, whose main sponsor in The Jewish Agency For Israel. The project is a school for social entrepreneurs and actively operates already 2 years in Latvia (www.newdoor.lv), [9].

Regarding to the fact that interest to social entrepreneurship in Latvia grows together with growing interest to this area of Business in other countries of the world, there was a research provided by the marketing agency „Latvijas Fakti" in 2011, with following results:

- 87 % of the survey participants have experience of participating in social activities (more than 800 people of totally 1000 surveyed)
- People in Latvia dedicate themselves to charity with a pleasure. 39% regularly make donations with a help of phone calls, the same 39% by putting donations in the donation boxes in supermarkets, 20% - by giving food to poor people, 17% donate to special charity organizations (as ziedot.lv)
- 16% of the surveyed participate in different groups according to their interests (chorus, dance club etc.)
- 13% of the surveyed believe in God and regularly attend temples (are parishioners)
- 7% are members of other organizations.

The survey results show wiliness of Latvian people to dedicate themselves to charity and that they are ready to support projects of social life, they like to become members of the group and they donate easily. Moreover, 13% of them have volunteering experience in different projects or events. When they participate in social activities they do it gladly because:

- 29% found this way of time spenging useful
- It improves general feeling of comfort for 25%
- It helps to get new contacts for 25%
- And new information for 20%
- It help to improve their professional skills for 15% of the surveyed.

19% of the surveyed said they would like to join any group which is beneficial for the society within the next year. Key factors, according to the research that would facilitate participation in the foundation, association or society are following;

- 36% mention interesting events
- 26% are interested to improve their skills and to gain new knowledge
- 23% would like to help people or their local community
- It's important that 21% of the surveyed who would like to participate in social events have high income.
- Fields of social entrepreneurial activity that Latvian people would like to support could be following:
- Environmental protection could be supported by 47% of Latvian inhabitants
- Quality and accessibility of social services – could be supported by 31%
- Protection of human rights – by 31% as well
- Development of regional community would be highly evaluated by 28% of Latvian inhabitants [10].

6 Conclusions

The financial crisis unleashed economic fear throughout Europe bringing high unemployment rates, increasing poverty and widening social gap. The pressing economic situation demands a new way of thinking and developing instruments which will bring both prosperity and social welfare and cohesion.

However the level of trust in Latvia to non-governmental organizations is low. Foundations are trusted only by 20% and not trusted by 32%. This means there must be a lot of work on further dissemination of social entrepreneurship ideas and its promotion in Latvia, both on the level of NGO and the state.

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Open education: continuity of approaches and risks

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Abstract

The paper discusses new opportunities of the modern open education for the development of the creative and competitive person, as well as challenges, problems and threats for an individual in relation to increase of a role of information, knowledge, informational and communicative technologies in the life of the modern society[5].
To overcome the existing barriers in the educational sphere, in the authors' opinion, is possible through continuity of approaches to education, quality and effectiveness at development of educational competences (common cultural, preprofessional, professional and methodological).

Keywords: modern standards, quality of education, competence, open education, distance learning, educational continuity, didactic principles, risks

1 Introduction

Global changes in the world, bound to integration and expansion of interstate cooperation, an advancement of science and technologies have significantly changed the direction in education. Both the future of the education, and of society in general depends nowadays on understanding by all participants of educational process of the direction of a strategic development of education.

Along with the leading scientists and experts in the field of informational technologies, many modern teachers, philosophers, theologians and journalists, discussing a complex of problems of open education, note that process of application and intensive development of informational technologies in the educational sphere has the hidden ambivalent character. The apparent advantages and conveniences brought by them on the one hand, are combined with the essential hidden riskss and threats for the person and society on the other hand.

In this regard the modern vector of a strategic development of education which is already directed at open education needs to be focused on continuity of approaches, achievements of steady quality and effectiveness in education.

2 Contemporary education development strategy

According to the European educational standard, legal documents of the World Bank, the IMF, UNESCO, the Bologna agreements, the national laws "About Education" one of key approaches of continuity in education is ensuring continious quality of education [1] on the basis of civilization, subject and competence-based approaches within an integration paradigm [2].

The realization of strategy of a development of education is implemented today not only within classical formal education (at schools, gymnasiums, lyceums and universities), but also through informal, distant and open education by means of the individual educational trajectories (IET), the individual curricula (IC), and the individual educational programs (IEP) [3].

Our conclusions coinside with opinion of the prominent British scientist in the field of open education, John Daniel, describing the concept of Open University of Great Britain, which "... was created with the purpose to be open in relation to people, to a place, to methods and to ideas. For all that, openness to people means elimination of any academic requirements for enrollment. Openness to a place implies creation of the system of distance learning allowing people to study wherever they are. Openness to methods means engaging in educational process of any innovations in the field of informational and telecommunication technologies which can make tutoring more efficient and pleasant.

At last, openness to ideas – means the very essence of university: it means emphasizing of both study and research activity for students". [7]

Besides, in our opinion in legal aspect open education is urged to provide a principle of social justice, i.e. to give equal opportunities to civil and military experts, pupils and students, and even to the unemployed in any country and beyond its limits to realize human rights on education and obtaining information. Adequacy and flexibility of response to requirements of society and realization of a constitutional right on education of each individual makes system of open education especially attractive.

3 Terminology

Speaking about open education, variety of the existing terms for definition of this phenomenon should be noted. It is known that the distance learning (DL) in the form of the correspondence education arose at the beginning of the 20th century. Today the term "distance learning" (distance education) is commonly accepted in both Russian and in English pedagogical literature.

At the same time there are other terms emphasizing a special role of telecommunications in the organization of access to open learning. Such variants are given below:

1. Open education
2. Distance education
3. E- education
4. Distance learning
5. E-learning

4 Arguments for modernization of education

Specialists in strategic problems of education call a distant form of open learning an "educational system of the XXI century". Why? First of all it is bound to objective factors of scientific and technical progress and basic changes in the social sphere, namely:

- transition from a technosphere to an infosfer is carried out;
- professional knowledge becomes out-of-date very quickly;
- the world telecommunication infrastructure is well developed;
- human rights on education and obtaining information are realized;
- the modern interface (integration of a sound, driving, image and the text) is provided;
- necessary minimum level of education for survival of mankind is considered to be the higher education;
- according to the World bank the actual cost of storage, processing and information transfer nowadays decreases twice each 1,5 years.[6]

In the framework of the above mentioned reasons "the closed educational architecture" has become an "open educational architecture", and education as a process has to evolve accordingly and to move to a new qualitative level of open education.

5 Features of DL

Research shows that for the last decades the number of the students who are trained by nonconventional technologies grows quicker than the number of students on full-time departments. This world tendency of transition to various forms of open education is traced and in the increase of number of the higher education institutions conducting preparation using the DL technologies.

In our opinion such wide popularity of DL in the world, giving opportunity to students, irrespective of the place of their residence to complete a course of any college or university, is connected with a number of characteristic features:

1. Flexibility (elasticity) of DL in terms of individual choice of time, place and pace of learning;

2. Special communicative interface of DL in terms of new social roles in the study process (Teacher+Student=Tutor+Customer);

3. Modularity or fragmentation of DL in terms of possibility to form study program from separate independent courses-modules;

4. Technology, i.e. use of special technologies and DL means;

5. Efficiency and special quality control of DL in terms of systematic monitoring of knowledge acquisition by a student;

6. Economy, i.e. low cost of educational services from the point of view of mass client;

7. Profitability (return on investment) in DL system and its modernization from the point of view of investors and universities.

The economic component in system of open education, perhaps, plays a crucial role. Most of experts share the view that distant education is already now cheaper than traditional, at least by 20%, and in the long run, according to Microsoft, the cost of network tutoring can decrease at least twice against the traditional education [6]. Apparently, high profitability of DL allows it to compete seriously with a system of traditional education at mass aspiration of the population to receiving educational services.

6 Role of educational continuity

It is apparent that ensuring steady quality of education is possible only on condition of educational continuity in elite profile and elite higher professional education.

The educational continuity is, first of all, continuity in all-didactic approaches to education which are realized in a stable system of the interdependent contents and coordination of all components of educational process [4].

It is necessary that the basis of open education (distant education) was formed by the set of all didactic principles of teaching giving the chance to carry out tutoring so that it corresponded to logic of knowledge as such. Ensuring steady quality of education, specific communications and interconditionality of separate elements of process of teaching and the content of studying are carried out only when there is educational continuity of approaches in realization of the main principles of didactics:

1. Principle of obviousness/visibility.
2. Principle of consciousness and activity.
3. Principle of availability.
4. Principle of scientific character.
5. The principle of an individual approach to the trained.
6. Principle of systematicity and sequence.
7. The principle of durability in mastering knowledge, skills (competences).
8. Principle of unity of the theory and practice.
9. Regularities of process of studying.
10. Principle of sufficiency.

The rules of learning reflecting more private provisions of this or that principle follow from the principles of learning, i.e. each didactic principle has to have the concrete rules of realization and in a system of open education. For example, the principle of systematicity and sequence in tutoring includes such rules as link between new materials and the earlier studied, splitting of the studied material into blocks, subsequent fixation of the acquired knowledge.

The continuity of approaches for distant and open education consists also in expecting changes in life and to prepare for them "in advance" by means of education. According to P. K. Anokhin the advancing education has deep roots in cognitive psychology and even in physiology of alive organisms, it is based on phenomena of the advancing thinking and the advancing reflection of reality [7]. The person possesses ability to the analysis, prediction, anticipation of succession of events and widely uses it both in everyday life, and in scientific activity. Therefore the aspiration to transfer this ability and to the field of education

looks absolutely natural.

Preparation of professional elite is the purpose and a task of civilized society at all levels. Profile education also is one of conditions of educational continuity in the continuous elite higher education, and has to be fully realized in distant and open education, as the factor promoting increase of effectiveness of training of competitive experts [4].

7 Hidden risks

Along with the leading scientists and experts in the field of informational technologies, many modern teachers, philosophers, theologians and journalists, discussing a complex of problems of open education, note that process of application and intensive development of informational technologies in the educational sphere has the hidden ambivalent character. The apparent advantages and conveniences brought by them on the one hand, are combined with the essential hidden riskss and threats for the person and society on the other hand.

In this regard, it would be desirable to refer to the systemic conclusions drawn at the XVI annual conference "Science. Philosophy. Religion", taken place on October 21-22, 2013 in Dubna situated near Moscow on the basis of the Joint institute of nuclear research [5].

Global transformations and systemic challenges which the mankind has already faced and will inevitably face in the near future, have irreversible character. Thus, carrying out process of education in the conditions of an early formation of informational civilization, formation of new informational and global outlook, culture, integration of technologies and emergence of nano-bio-info-kogno-social (NBIKS) technologies, change of mentality, type of thinking, behavior of the person and so forth, in the absence of a transparence of management, DL can be used for distribution of unreliable, harmful or false information, as well as in personal or mercenary interests of individuals and groups [5].

One of aspects of such use is destruction of traditional values including fundamental classical education that especially negatively affects basic life princples of younger generation.

The set of problems of application of informational technologies and process of their intensive development are inevitably bound to the humanitarian sphere, and, therefore, to education. In the humanitarian sphere it is possible to allocate a number of the fundamental aspects which are exposed to transformations from usage of informational technologies (see Table 1).

The new type of a person with primitive and infantile consciousness and will is being formed. The dangerous tendency of decrease in level of conscious perception by a person of information that facilitates manipulation of individual is seen. Besides, influence of a huge flow of information on human psyche has not been fully studied yet.

However, it is already well-known that the long communication in the virtual reality harmfully affects younger generationl. Today's "Internet generation" with characteristic media environment in which intensive virtual communication takes place, is characterized by discrete perception, clip thinking, new psychosomatic frustration of health, etc.

TABLE 1 The aspects which are exposed to transformations from usage of informational technologies.

Aspect	Transformation essence
Civilization	Formation of informational civilization
World outlook	Formation of new informational and global outlook
Culturological	Formation of new informational culture of society
Technological	Integration of technologies and emergence of the nano-bio-the info-kogno-social (NBIK) of technologies
Biosociological	Change of mentality, type of thinking, behavior of the person, etc.
Ethical	Destruction of traditional morality and standard human values

At last, technologies of the virtual communication (Internet, social networks and so forth) can not substitude original human communication and lead to weakening of the interpersonal relations, including the relations even between family members.

What especially causes fear are the modern bio-technological projects, connected with application of genetic engineering, unity of simulated and natural systems (e.g., the interface "brain-computer") since on the one hand, they are really capable of expanding physical and intellectual capacities of the person, but on the other hand, they can cause, perhaps, irreversible transformations of a human nature.

8 Conclusion

Systems analysis of development and application of informational technologies in education shows that along with perspective of welfare development of humanity there is also an actual possibility of its turning into artificially operated society with essential restriction of an internal and external personal freedom. Influence of a huge flow of information, the prolonged communication in the virtual environment especially negatively affect younger generation.

Only being guided by continuity of approaches in education, achievements of steady quality and effectiveness, further development of open and distant education and overcoming of risks of depreciation of original knowledge, devaluation of education, decrease in intellectual and moral level of the person and society in general is possible.

It is essential nowadays for all the participants of educational process to understand the direction of a strategic development of education. To overcome theexisting barriers in the educational sphere is possible through continuity of approaches to education, quality and effectiveness at development of educational competences (common cultural, preprofessional, professional, and methodological).

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Social Franchising of private clinics in Kazakhstan

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Abstract

The weaknesses of the healthcare system in Kazakhstan have been observed; the range of sources from government publications to original research has been used; the social franchising of private clinics model as a solution of the health sector problems has been proposed; the research for internal use to identify the willingness of private sector to be involved has been conducted; the data collected has been processed and the recommendations have been provided.

Keywords: public/private healthcare sector, reproductive health, social franchising model, health services, strategic planning, innovative approach, social responsibility

1 Introduction

Main directions of Kazakhstan health system development have been addressed in the President's official message «Kazakhstan-2030». Strategic goal is determined as improvement of service quality based on application of modern technologies. The system and structure of health sector are reflected in the Kazakhstan Code «On health of population and health system ». Access to prevention and treatment services and efficiency of applied models and methods became main priorities.

Current stage of health system development can be described as serial integration of Kazakhstan economy into the global system accompanied with application of new approaches in the sector's organization aimed to institutionalization. However, the recent country health system has not been studied enough, and this is an obstacle in decision-making. Obviously there is need to transfer to the new system through adaptation and application of modern technologies in new institutional environment.

The overall strategic plan of the health system development is linked to improvement of living standards in Kazakhstan, which is a way to solution of social issues. Code of Kazakhstan addresses importance of free choice of organization and doctor for every citizen independently of his or her social status. Despite of obvious shifts in country demographic situation the level of reproductive health remains low. This situation is exacerbated by the poor quality of health services and a lack of standardization.

Insufficient health conditions of women and children, the prevalence of socially significant diseases, poor public health and poor provision of guaranteed free medical care define a generally low level of citizens' health**.**

Consequently, the health sector of the Republic of Kazakhstan needs innovations while preserving rights both consumers and providers of health care services.

2 Overview

2.1. HEALTH SECTOR PROBLEMS

In Kazakhstan, women of reproductive age from 15 to 49 years are socially vulnerable because of low income and lack of access to quality services on prevention and treatment of diseases with reproductive nature, which are provided mainly in the private health facilities on a fee basis.

Limited access to services and the general level of awareness of reproductive health issues illustrated by the following statistics:

- Extremely high index of maternal deaths during childbirth;
- Low level of condom use;
- Relatively high rates of abortion;
- Increased incidence of diagnosis of breast and cervical cancers.

Quality reproductive health services are not available to all, as provided in the private health care on a fee basis. The costs of these services are quite high. All private clinics are concentrated in urban areas. Thus, the distanced localization of private clinics is also one of important obstacles on the health system map.

Taking into account all of the above, the lack of access to health services is determined as urgent **problem #1.**

The public health sector, the country inherited as a Soviet legacy, has historically developed a vertical hierarchy, with the transfer of management authority to local levels**.** As a result, municipal authorities use the state budget as the main source of funding.

In a growing economy and development of the country, limited funds are allocated for the public health sector. Public health sector specialists are overloaded and are paid extremely low. All this affects the quality and efficiency of their work because of low motivation. According to statistics, nominal salaries in the public health sector is on average $450 per month. According to the study, only 46 %

of the population indicated satisfaction with the quality of medical services provided by the state.

Health departments are subordinate to local municipalities. The relevant funds are calculated based on indexes of population living in exact region. Thus, funds are available only for citizens of Kazakhstan who are registered and have IDs or national passports. Representatives of vulnerable groups who are living in Kazakhstan and do not have registration (labor migrants and their families) are not allowed to have access to the services existing in state health clinics.

Taking the above-mentioned facts into account, the lack of access to health services provided in state health clinics for vulnerable populations is determined as urgent **problem #2**.

Private health sector operates through self-sufficiency and their profits, so the interest of clinics in capacity enhancement is obvious and undeniable. However, the process of increasing the capacity of a single private health clinic depends on many factors including the high transaction costs, lack of effective management, quality control system services, etc.

All these facts are linked to the **problem #3**: limited private clinics' opportunities.

2.2 THE PROPOSED SOLUTION

Central Asian branch of Population Services International proposes the social franchising model in private health sector as an option to establish fare access to reproductive health services for vulnerable women in reproductive age. This option is based on PSI's global experience in South Asian and African countries.

PSI considers piloting the model as project on the territories of Republic Kazakhstan, Republic of Tajikistan, Kyrgyz Republic within the current projects funded by US Agency of international development in Central Asia.

The master thesis is focused on the context of the Republic of Kazakhstan, since the basic studies were conducted among private clinics located in Almaty city.

The voucher referral system is recognized in many global social projects.

The holder of the voucher is referred to the appropriate private clinics in Almaty, which are unified into a single branded network.

Private clinic, in turn, provides services to the holder of the voucher at a discount (70%). Vouchers are distributed by social workers to potential customers. Social workers conduct informational and educational work among the target group, creating demand to receive medical services. Informational and educational unit of the model, aimed at changing the behavior of a potential customer from risky to safety, is an important part of social franchising marketing model.

All vouchers have registration number and are unique. Thus, there is no way to receive repeated services under same voucher. When a client is in a particular private clinic, the registration number of the voucher is entered into the database. If the voucher is already in there, the system indicates this fact.

The model will cover around 7-10 private clinics located in Almaty city. Association of private clinics in a network will provide overall marketing costs, which significantly reduce the level of operating expenses for marketing activities based on one clinic. All clinics which will be united into a network will position its activities through a single brand "Ana" and slogan. Thus, it will provide a worldwide brand awareness among the target group.

Section of quality control is the main technical aspect of the model. The model will be funded by international donors, representatives of the business environment, including pharmaceutical companies.

Target groups:

- Clients, or women of reproductive age from 15 to 49 years living in Almaty city and the surrounding neighborhoods, socially disadvantaged due to low income and low awareness of the risks. Clients will get access to high quality medical services at affordable prices;
- Private clinics located in Almaty city, which have license to provide health care services. Due to the model private clinics will be able to increase the capacity and profits. The clinic will also have the opportunity to improve administrative management, implementation of the marketing plan in the operations, the use of new IT technologies, as well as the introduction to the methods of monitoring the quality of services.

Roles of participants:

- Medical staff of the private clinic will provide high quality services with reproductive nature based on social franchising model and referral system;

- Franchisor (PSI) will unify private clinics into one network with same brand and slogan, unified strategy and innovative approaches. Franchisor will ensure access to high quality services with reproductive nature for targeted women.

- Franchisee (private clinics) will satisfy the need in health services through the equal access to services.

2.3 RESEARCH METHODOLOGY

To better estimate the possibility of social franchising model and the level of demand for it, PSI team has decided to conduct research study for internal use.

The goal.

The survey aimed to collect information about current situation in the private health sector in Kazakhstan, based on the private clinics of Almaty city. Particularly, the accent was made on the package of services for women of reproductive age, the price, the motivation of clinic staff members and the problems they face on the way to success.

The question.

«Why the private health sector in Kazakhstan is not involved into solution of limited access to services among vulnerable women of reproductive age?»

The hypothesis.

The private clinics would be interested to participate in the process of improving access to health services among vulnerable women of reproductive age by entering social franchising network under one brand and unified standards.

The Object.

The private clinics of Almaty meeting PSI selection

criteria.

The Subject.

The willingness of private clinics to participate in the social franchising model to improve access to services among vulnerable women of reproductive age.

The Methodology.

In-depth Interview and Focus-Group have been chosen as the main methods of the research. In the opinion of the author this methodology offers an accurate assessment on the feasibility of social franchising in Kazakhstan.

In-depth interview assumes individual interview with a person in open dialogue, asking the direct questions. Interviewer is interested inrespondend's opinion on this or that question, determines his habits, etc. Usually this method is used to observe inside emotions, when the confidential information about the social norms is needed.

Focus-Group is a group discussion of a particular subject. The biggest value of this method is that participants feel free to answer questions in a friendly and comfortable atmosphere. The disadvantage is that the participants can influence each other.

The information have been drawn from a range of sources including official government publications, reports from multilateral organizations and development partners present in the region, academics and original research.

Author has conducted dozens of in-person interviews with private and public sector gynecologists, proctologists, clinic administrators, health business professionals and doctors. These visits were an essential part of information gathering activities for this research, as they provided with a first-hand understanding of the status in the private sector. They also served the dual purpose of deepening PSI Central Asa's existing health sector relationships and building new relationships with potential franchisees. On-staff gynecologists and doctors in PSI Central Asia offices have also provided advising during the survey.

3 Results

3.1 RESEARCH RESULTS

From September to December 2014, 40 small-medium private clinics have been identified that offered family planning services in Almaty city.

Author conducted long-form in-person interviews with seven of the identified providers. Information gathered from the interviews was condensed into the clinic profiles attached to the thesis.

These profiles were meant to give a snapshot of the type of providers social franchise is interested in collaboration with.

In the Master's thesis, the results of the interviews were presented in a form of a story for the better perception.

The results of research showed that there is significant potential to operate social franchises successfully in Almaty.

The new strategy design for private health sector development is a unique chance to transfer from a soviet model characterized by vertical and hierarchical systems of care to innovative model developed to make the healthcare services in Kazakhstan sustainable and institutionalized, particularly, the reproductive health services.

This innovative model assumes the application of social marketing and Private Public Partnership (PPP) methodologies as a collaboration of government and business units to stand against social problems such as the limited access to the health services among women of reproductive age.

Taking into account low funding level from government the diversification of such methodologies during the strategic development of the private health system is the most effective operational approach as of today.

The strategy aimed on developing of unified social franchising model should be based on detailed data analysis during the research.

STIP (Science, Technology, Innovation and Partnership) approach should become a cornerstone of the newly created operational platform for private clinics. The tools that could be adapt to the fluctuating environment factors is the crucial central point in the strategic planning process, thus the start-up will require technical analysis, supportive supervision and accurate data management.

3.2 CONCLUSIONS AND RECOMMENDATIONS

Current barriers and obstacles, which were found during the research, will be solved through application of technical pack of services. There is a task to develop operational, strategic and business plans with elements of social marketing including innovative approaches and global experience to increase capacity of clinics' staff members on stigma and discrimination.

Finding 1. There is a need to improve technical capacity of private clinics through application of social franchising model.

In accordance with study results technical capacity of private clinics remain on a very low level. Only 14% of respondents inform on electronic surveillance on disease cases. In any other cases clinics continue to use hard copies of archives. All respondents agrees that there is a need to improve technological base of a clinic through application of new IT technologies. However current situation of private clinics in the environment of undeveloped business appear to be an essential obstacle for wider inclusion of modern international techniques of business development.

Recommendation.

The model of social franchising will allow applying electronic surveillance systems, to computerize client's archives, to establish electronic individual packages with information for every client (disease story, treatment schemes, dates of latest contacts, etc.,).

Another innovative way to applicate the social franchising model into operational structure of private clinics will also allow further use of global PSI experience in social franchising (SMS communications with clients). This approach will illustrate technical readiness to apply technological innovations in the sphere of social support towards the vulnerable groups.

Finding 2. There is a need to increase client's turnover to increase profit.

In accordance with study results, most clinics expressed high interest in increase of client's turnover.

«Our clinic serves around 400 clients at average. We are interested in increase of client\s *turnover».*

«Our clinic is in high need to increase client's turnover»

«We wish to increase client's turnover, but we can't make it happen due to low capacity of staff».

Recommendation.

The application of social franchising model will allow to increase client's turnover through strengthening of medical package of services for vulnerable women living in Almaty city. The package will contain reproductive health services, including antenatal services, consulting on family planning, services on detection of cervical and breast cancers, additional services, etc.

Finding 3. Low capacity of medical staff is another obstacle to develop private business in health sector.

Most respondents informed that medical personnel didn't attend any trainings during last 5 years.

«Our clinic is very interested to provide opportunity of *trainings for our staff, but we don't have enough funds to support this».*

«Noone in our team participated in trainings during last 2 years».

Restriction in funds remains to be one of the main obstacles to provide opportunity for medical staff to participate in professional trainings.

Recommendation.

The application of social franchising model on reproductive health will ensure strengthening of professional capacity of medical staff of private clinics through provision of trainings on reproductive health and family planning issues and informational materials and access to web resources.

Finding 4. There is a need on application of strategic and business planning to improve operational structure of private clinics.

Respondent's answers showed the absence of strategic planning in operational structure of private clinics. Clinics are not supported by marketing plans. Only one clinic informed on using the on-line recourses. Maximum Marketing budget which was mentioned within questionaries' is 150 US dollars/per month. There is lack of skills in strategic planning, HR and funds.

Recommendation

The application of social franchising model includes development of strategic plans with environmental analysis within the geo locations of private clinics, social and economic factors, national strategies and competitors, fund recourses, etc. The model contains a SWOT and PEST analysis.

This stage fully depends on teamwork with dissemination of roles and functional responsibilities for every team member. The model contains the decision-making schemes based on timely involvement of technical specialists and consultants.

Strategic planning process is a milestone to develop network of private clinics unified under common brand and slogan with application of classic and social marketing tools, innovative technologies and environmental analysis (PEST, SWOT, STIP). This process should be supported by effective partnership between state and private health sectors of Kazakhstan. There is a need to apply modern PR technologies with effective advocacy plan.

Finding 5. There is a need to improved corporate social responsibilities (CSR) of private clinics.

The social vector of the model is oriented to vulnerable women of reproductive age. There is a social model with elements of social marketing.

Recommendation.

Clinics which will participate in our model should work hard on their CSR.

4 Conclusions

The main hypothesis of this dissertation sounds as follows: «Why private health sector of Kazakhstan doesn't equally participate improving of access to health services (prevention and treatment) among vulnerable women of reproductive age?». The master thesis determined main barriers and obstacles to active participation of health private sector in solving social issues in Kazakhstan.

The main obstacle is undeveloped private health sector with absence of clear strategy of private health sector for further transformation of new strategies from old "soviet" systems to innovative modern systems aimed to sustainability and institutionalization, particular in the sphere of reproductive health. Lack of funds appears as another obstacle in the sector development. In the conditions of low funding the diversification of strategic methods of business planning will be the only operational tool to improve the sector.

Also, undeveloped innovative tools don't support the sector development process. Innovations in science,

technology, information and partnership (STIP) will help to strengthen operational structures of private clinics. All systems should be adaptable to local environments.

Another huge obstacle in the health sector development is lack of human resources and lack of access to global information and tendencies.

The social franchising model will propose new modern strategic mechanisms to manage the sector together with innovative technologies and marketing tools. All these factors will influence the client's turnover and overall profit.

The model's application will also increase capacity of medical staff of private clinics through the training programs, provision of informational materials and access to web recourses.

The model's application contains the development of strategic plans, which will allow the clinics to act as a transparent and relevant mechanism.

Clear advocacy, positioning statements, strong partnerships will be main conditions of smart strategic planning process.

Study results illustrates the readiness of country health sector to wider the potential of smart corporate social responsibilities. However there is obvious evidence which remains an obstacle to further sector development in social directions with lack of access to services for vulnerable women of reproductive age.

Author of the master thesis proposes the application of social franchise model to further development of corporate social responsibility of private health sector as a decision option to improve reproductive status of socially vulnerable women of reproductive age living in Almaty city (Republic of Kazakhstan).

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The problems of development of the Ukrainian tourist market and ways of their solutions

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Abstract

Nowadays tourism rightfully can be called the most promising business in the world in general, and in Ukraine. Tourism is important social and political phenomenon. The tourism industry can safely be called one of the most important components of the global economy. In Ukraine, the hotel business is one of the most promising and successful businesses. Also, the Ukrainian hotel business is very lucrative sector for investment. Tourism is the most important part of the global economy, nowadays. Hospitality Industry headed by its hoteliers seeks to improve living conditions and services. For every person who travels to another city or country, it is important to feel the comforts as at home. This is the goal of hoteliers. Ukrainian tourism industry is no exception and also developing rapidly from year to year. This article were analyzed the situation at the Ukrainian market of hotel services, its macro- and microenvironment. The article reflects the pressing problems of development tourism industry in Ukraine. In the present article displayed overall Ukrainian tourist market and analyzes the main problems.

Keywords: tourism, market, services, economy

1 Introduction

Topic of the article: the problems of development of the Ukrainian tourist market and ways of their solutions. Relevance of the topic is much important for Ukraine, because the economic situation is extremely critical nowadays. If to draw attention to this topic, it can help to improve the country's economy. However, due to political situation in Ukraine, as of today, the relevance of the theme of tourism development takes a back seat.

The purpose of this study - is the main reasons and problems existing in the Ukrainian tourism. The main idea of the project is formation of the problems for tourism development in Ukraine, and their rationale.

The object of study serves the market of the tourism industry in Ukraine in this article.For studies conducted in the prepared article, were used datas from the website of the State Statistics Service of Ukraine, the government portal and the site of the Verkhovna Rada of Ukraine, and many other web sites, covering the economy and the situation in the country as a whole.

Study and analysis of the literature showed that the scholars, which working above the development of the Ukrainian tourist market, in its works do not give an answer about the prospects for the development of tourism in Ukraine. "Evaluation of the possibility of Ukraine's participation in international tourism" V.B. Artyomenko describes quite good prospects in the development of the tourism market in Ukraine, based on the encouraging examples of neighboring CIS countries that have already gone through the development of tourism.

However, in my opinion it is impossible to compare countries with each other and focus only on that. Since, in different countries are different mentality, different natural and human resources and its own way to the development of the tourism industry.

I suppose that the biggest plus of Ukraine - rich natural resources. Every city in Ukraine is special and has its own attractions and cultural heritage. Artemenko VB noted the steps that will help the development of tourism:

- simplification of visa and customs procedures;
- improvement of tourism infrastructure;
- development of state programs for the development of tourism.

An indisputable fact, that the state of Ukraine pays little attention to tourism. I presume that this is an extremely important part of the economy. Ukraine has potential. It is necessary to develop and support it. Also, should not ignore the international tourist market. Unconditionally, Ukrainian tourism has its advantages, but it is not enough. Ukraine should learn properly position itself in the international market. Kaplun I.G. distinguishes two components of tourism development - natural aesthetics and local history. In his work, he pays much attention to these components and gives meaning to uncertainties. In more detail, these same factors are considered Kravtsiv V.A. However, in his work, he pays more attention to the issue of regional tourism. Kravtsiv VA offers to consider the specifics of the region and the features of the territory, using them as an advantage region or city.

The problems of tourism development in Ukraine are engaged in such practices and scientists as M. Boruschak, V.V. Khudo, T.I. Tkachenko, L.M. Shulgina and others. But despite of this, the Ukrainian tourism industry still lags behind other countries.

For the most countries, the tourism industry is the most profitable and fast-paced. France and Spain can be called the most profitable in the tourism market. For example, the income from tourism in Spain was 10.2% of GDP and 11.5% of the total, revenue is up 7.1% in France and 4.9% in the same proportion. In the top 10 countries with developed tourism, includes countries such as USA, Spain, France,

Italy, China, Germany, United Kingdom, Australia, Turkey and Austria. The tourist industry often becomes a source of income to the budget of many countries, as the tourism industry generates income not only business owners, but also the state as a whole. Industry, trade, construction, transport, agriculture, domestic service, small and medium business - the profit of almost all sectors of the economy is largely dependent on tourism, which acts as a catalyst for socio-economic development of the country. Tourism - a dynamic industry, and to identify the current conditions of its efficient functioning, the tourism industry requires constant supervision.

Fiscal and Border Guard Service of Ukraine confirms the growth of the tourist flow in Vinnytsia, Volyn, Dnipropetrovsk, Zhytomyr, Ivano-Frankivsk, Kiev, Nikolaev, Odessa, Poltava, Rivne, Sumy and Chernivtsi region. Like many European countries, the most powerful is the tourist flow between the neighboring states. Also, the neighboring countries and provide powerful streams of day tourists, particularly transit, the number of which is increasing annually.

The World Tourism Organization (WTO) predicted to Ukraine increase tourism to 15 million people. The State Statistics Committee of Ukraine in their reports shows that the hotel business in Ukraine is developing successfully and dynamically. The main problem, and brake of the development of tourism in Ukraine - the lack of attention and support to the industry by the authorities.

Ukrainian tourist market is still in the beginning. Exacerbates the development of Ukrainian tourism a low level of infrastructure, weak investment by the state, economic and political instability in the country. Travel resources of Ukraine are not used to the full, which is also quite weighty problem for tourism development. There is also a large number of obstacles for tourists such as - old vehicles (airplanes, buses, and trains), meticulousness customs and border services, groomed airports, train stations in Ukraine. These problems can not be solved without government support.

However, the Verkhovna Rada of Ukraine abolished the State Committee of Ukraine on tourism, which was responsible for the development of tourism defined as the branch in Ukraine. The Cabinet of Ministers of Ukraine did not pay enough attention to the tourism, although the tourism industry is a multi-faceted economic system, which helps to develop such defined as the branch of the economy such as agriculture, construction, industry, insurance, culture, art, communications and many other industries.

Tourism has all the capabilities to help Ukraine to pass the economic crisis, or at least mitigate this period, and to help all sectors of the economy bounce back. Ukraine has a lot of natural, historical and cultural resources that can help in the fight against the crisis. There are examples of countries which "live" thanks to the tourism industry. For example, Turkey - overcome the economic crisis and the collapse due to the development of tourism. Turkey is famous for its spas. Not only because of the seas. However, tourism needs the support of the state. The motto of the World Tourism Organization - "Where tourism is develops, poverty retreats." This motto is correct and logical for Ukraine. Tourism development is a very topical issue for Ukraine. An Ukrainian tourist often refuses to itself in the vacation due to economic instability and lack of free money on travel.

Not so long ago, the Ukrainian government strongly supported the theme of "social tourism". The aim is to provide social tourism socially vulnerable groups the opportunity to rest and travel, leisure travel subsidies for poor citizens. However, at this time the state does not pay enough attention to this problem. For example, in 2002, single mothers were given the opportunity to purchase a ticket to Truskavets (spa resort city in the Lviv region) for 24 days at a cost of 600 hryvnia (at the rate of 1 EUR = 5.53 Ukrainian Hryvnia) for the mother and child at the minimum salary in the amount of 165-190 hryvnia. What about today, like tour packages for mother and child will cost about 9000 hryvnia (at the rate of 1 Euro = 35 Ukrainian Hryvnia.). Accommodation for child under 12 years old is free. However, the minimum wage in Ukraine today is 1200-1500 hryvnia. Which suggests that, unfortunately, in Ukraine afford to travel to a health resort can only rich people, politicians or businessmen.

Of course, in Ukraine there are other, cheaper options for recreation. For example, in the Poltava region there is a resort village New Sanzhary. The cost of holidays at the resort of New Sanzhary will be about 2,000 hryvnia. For the average citizen is an adequate price. But it's worth noting that the level of pensions is much lower than in Truskavets. If exacerbated the issue of social tourism can be identified that the best period of development of social tourism is the time of USSR. That time, more than 70% of vouchers was paid by trade unions and the state. Now this proportion of the budget is much lower. That itself speaks about the problems in the tourism industry.

The state should pay more attention to tourism. Tourism is a promising industry that will bring economic benefits to the country.

To identify opportunities and threats for the company analyzes the external environment. The external environment is the source of nourishes the company with the resources necessary for its operation. The company and the external environment interact with each other, making it possible to survive in the market. For the enterprise is extremely important to maintain external relations. For example, under the phrase "external relations" should understand the supply chain, and sales.

Macro Environment due to the following factors:

- Economic factors;
- Socio-cultural factors;
- Technological factors;
- The international dimension.

So, I suggest you to consider the factors and their implications for the enterprise in Ukraine.

The economic factor shows the state of the economy. Ukraine's economy, unfortunately, is not in a good condition nowadays: high unemployment, rapid inflation and exchange rates, the economic crisis. All this affects to the level of prices, profitability, solvency and the level of living of the population.

In my opinion, the most important factor in tourism - the economic. Since, a stable economy in the country is the most important condition for the functioning of tourism. An important factor for the development of the tourism industry are international relations, foreign economic activity of the

country, the state of solvency of the country, which affects the development of all sectors of the global economy. When there is a stable economic situation in the country and there is the growth of incomes in the population, people are spending more money on vacation, and accordingly on the trip. Financial instability, inflation, strengthening customs requirements, interest rates, and changes in exchange rates lowers the activity of tourism.

Nowadays, Ukrainians spend money only for buying food for about 70% of their income. This situation has a very negative impact on the development of tourism. For years, Ukraine is trying to survive in a lack of money. But be that as it may, in any case, every year in the country increases and wage payments, and pensions, and social assistance. Ukraine is trying out of its way to reach a higher, European level. And even in the face of a deep economic crisis, the level of tourism is increasing every year. The number of tourists is growing. This is certainly a good opportunity to develop and pushes Ukrainian tourism industry. Due to the recent military and political developments in Ukraine, experts predicts deflation since deteriorated manufacturing and agriculture, increase in foreign exchange rates, the annexation of the Crimea, and it should not be exclude the unsafe situation in the south-eastern Ukraine. Ukraine has all the factors for the development of tourism, but today tourism potential has not been revealed until the end, as evidenced by the 1.5 - 2.5% of the GDP of the country. Economic, social, cultural and environmental factors are the obstacles in the development of the tourism industry in Ukraine. The dynamics of growth of tourism in the period 2005-2010 was almost no variation, as evidenced by the coincidence with the dynamics of GDP.

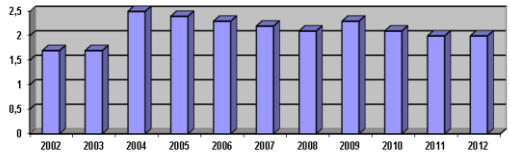

FIGURE 1The share of direct revenues from the tourism sector to GDP in the Ukraine

Social and cultural factors shape our lifestyle, work, consumption, reflect habits, traditions, according to which they exercise their consumer spending and have a significant impact on virtually all organizations. New trends create the type of consumer and, therefore, cause the need for other goods and services, identifying new strategies for the organization. Socio-cultural factors also affect the products or services that are the result of the company. People are often willing to pay more for prestige because they think it will give them extra weight in the society.

The growth of the population, the aging of the society, later marriage, increased the number of single people, increasing the number of working women; the planning birth a baby, the growth in the number of childless couples also directly affects the development of tourism.

It can be listed the main socio-cultural factors that organizations often face: the birth rate;the mortality; intensity factors of immigration and emigration; coefficient of average life expectancy; disposable income; lifestyle; educational standards; shopping habits; attitude to work; attitude to rest; related to the quality of goods and services; demand control of environmental pollution; energy savings; attitude towards the government; problems of inter-ethnic relations; social responsibility; social welfare.

It is worth noting that in recent years has been increased the duration of leisure time, due to the reduction of working time, crushing and increase the duration of annual leave, which, together with an increase in the standard of living directly affects the influx of new visitors. In connection with the new trend of dividing vacation trips are frequent, but shorter.

Studies have shown that the level of propensity to travel directly related to the education of the population. This, of course, suggests that higher levels of education, culture and meet aesthetic requirements relate to the development of tourism and socio-cultural factors.

According to statistics the greatest tendency to active forms of tourism are showing people aged 18-30 years. Studies show that unmarried people are more mobile than family, and women are more interested in tourism than men. Demographic factors relating to population, placing it in selected countries and regions, gender and age structure (with the release of the working population, students and pensioners), marital status, family composition, have a direct and permanent impact on the development of the tourism industry.

According to the web-site banker.ua to the end of 2014, the flow of tourists in the Odessa region decreased by 15%, and the Lviv region - 5%. Lviv administration has made every effort to attract tourists. However, the administration confirmed the fact that the flow of tourists from Europe declined. The strongest Drop tourist flows in Kiev - 30-35%. In comparison with 2013, when foreign tourists visited Kiev - 1 million. 215,000, in 2014 there were 704,000. What about internal turistov- 651,000 and 406,000 respectively.

Technological factor involves changes in technology, innovations that are upgrading or re-orienting production organization. The introduction of IT-technologies in the field of tourism and the development of information and telecommunications network the Internet have made many types of tourism services able to trade. Tourism product is one of the most frequently requested online.

His influence on the organization often so obvious that they are considered the main engine of industrial and social progress. Revolutionary technological changes and discoveries of recent decades, for example, the production with the help of robots, penetration into the daily life of computers, new types of communication, transportation, weapons, and more, are great opportunities and serious threats, the impact of which managers should be aware of and evaluate. Some discoveries can create new industries and close old.

The impact of technological factors can be viewed as a process of creating a new and destruction of the old. Accelerating technological changes shorten the average length of the product life cycle, so organizations need to anticipate what changes bring with them new technologies. These changes can affect not only production, but also to other functional areas, such as personnel (recruitment and training of personnel to work with new technologies or the problem of dismissal of surplus labor is released as a result of the introduction of new, more efficient production

processes), or, for example, for marketing services, to whom the task of developing methods for the sale of new products.

Technological factors associated with progress in engineering and technology, to a large extent influence the development of tourism, have opened doors for new types of services, their sales and improve customer service. The development of science and technology contributes to the improvement of mass production of tourist services (hotel management, transportation, travel).

The significant increase in tourism and the expansion of its social base to provide logistical factors. Scientific and technical process has been strongly forward. Including in the hospitality industry. In today's world, information is available in more than. Development of telecommunication technologies has led to the creation of computerized reservation systems, which allow to book a place in accommodation facilities in the on-line. Global systems provide easy access to millions of users. At the moment, for almost any man who knows how to use the Internet and the computer will not be difficult to find a hotel, buy a plane ticket or develop your route of travel. On the client side open access to complete information about the hotel - well. However, if we consider this achievement on the part of the competition should assume that such openness and accessibility can play in favor of the owner. Because it can threaten copying of certain innovations.

Today, the consumer is quite difficult to surprise anything. In hotels network Starwood hotel room can be opened using a smartphone the iPhone, chains Aloft visitors will serve robot butler, and Ushuaia Ibiza Beach Hotel in Spain can pay via fingerprint. This is not the whole list of innovations in the hotel industry. However, research conducted by me innovations in the industry have led me to a new channel of communication with potential customers. This so-called, «Digital Signage». Digital Signage - it displays various sizes and types, which are mounted inside the wall or installed as stand-alone information stands. These stands and displays translate text and image ads, slides, videos and high definition video HD. Also, Digital Signage can be used to display the circuits of the city, route maps to local attractions. By placing these boards can be without the help of the hotel staff to direct guests in any room of the hotel: sauna, restaurant, conference room.

Managing such a display uncomplicated, and the work of all the boards in the hotel can be controlled with just one computer. The display can be programmed in the months ahead, and all information from the Internet automatically updated: schedule of arrival and departure of aircraft, weather forecast, international news, currency exchange rates.

Digital screens in hotels used for advertising, online sales of internal services, event planning in conference rooms, to inform guests and delegates of the place and time of the conference.

International factor also plays an important role in planning activities. The company may use the materials and resources of another country to apply foreign technology. Various factors legislative and governmental nature may affect the level of existing opportunities and threats in the organization.

National and foreign governments may be for a number of organizations, the main regulators of their activities, sources of subsidies, employers and customers. This may mean that these organizations assessment of the political situation may be the most important aspect of the analysis of the external environment. Such an assessment is carried out through the details of the political and legal factors affecting the organization. Such factors much more of their various combinations, so select and list the most common in the analysis of the external environment: changes in tax laws; alignment of political forces; the relationship between business and government; patent law; legislation on the protection of the environment; government spending; antitrust law; monetary policy; government regulation; federal elections; political conditions in foreign countries; the size of the state budget; Government relations with foreign states.

Some of these factors affect all commercial organizations, such as changes in tax legislation. Others - only a small number of firms operating in the market, such as antitrust laws. And others - are essential, especially for political organizations, such as the balance of political forces or the results of the elections to the State Duma. However, in one way or another, directly or indirectly, political and legal factors affect all organizations. For example, the manufacturer of toys will affect standards of toy safety, changes in the rules of the import and export of raw materials, equipment, technologies and products, changes in the tax policy of the state, etc.

A significant impact on the development of tourism have political and legal factors: the political situation in the world and individual countries; open border policy; easing administrative control in the tourism sector; harmonization of fiscal and monetary policy. Tourism activity essentially depends on the political situation. Stable political situation contributes to the development of tourism and, on the contrary, the tense situation causes low growth rate and even clotting.

Nowadays, the political factor in Ukraine has a negative impact on the tourism industry. Due to the self-proclaimed world annexation of the Crimea, has suffered direct impact on the economy of Ukraine. Since, in the summer of Crimea was very popular among tourists. However, after the annexation of almost 90% of Ukrainian tourists declined principally from trips to the Crimea and chose to go on holiday abroad or spa resorts of Zakarpathia.

Cooperation of neighboring countries and not only provides an immediate opportunity for tourism development. The international dimension, as well as all an integral part of and basis for the development of tourism. Interaction between countries is leading to higher costs for the tourism industry and increasing the flow of tourists between the two countries. Tourist and economic agreements between the two countries make it possible for tourists to cross the border without a visa, or simplification of visa. What is important for the tourist and also a very positive effect on the hotel business? For example, due to the cancellation of the visa regime between Ukraine and Turkey and the flow of tourists to Turkey from Ukraine, as well as to Ukraine from Turkey increased. Consequently revenues increased hotels.

Also important factors that influence the development of the tourism industry, are factors such as environmental factors and seasonality.

Environmental factor has a direct impact on tourism, as

the environment is the foundation and the potential of tourism activities. Different types of pollution, such as radiation and chemical emissions are a deterrent to tourism development in such areas. Preservation of the environment of a tourist region - the main goal and task of the state. Tourists are attracted by pristine nature and cultural heritage of the area for tourism. Not for nothing today all dynamically developing a tourism destination as ecotourism.

TABLE 1 Statistical data of the State Statistics Service of Ukraine in 2013

	Number of collective accommodation facilities, units	**Number of beds, units**	**Number of occupancy**
Accommodation facilities, total including	**6412**	**586636**	**8303183**
Hotels and similar accommodation including	**3583**	**179100**	**5467915**
hotel	1761	116003	4492864
motels	151	4391	140221
hostels	24	662	33299
campgrounds	24	604	11177
hostel for visitors	144	10342	150028
tourist camps, mountain shelters, student summer	1479	47098	640326
Specialized accommodation, total including	**2829**	**407536**	**2835268**
sanatoriums	282	92921	1030002
children's sanatoriums	158	30384	218733
pensions with treatment	37	9107	62799
child care improvement year-round	17	8977	65949
children's centers	165	15487	130252
sanatorium	4	540	5433
Spa clinic, mud baths, balneology and mud baths (including children)	27	2734	31340
holiday homes	244	54715	329679
holiday resorts	1882	191028	947244
recreation, and other facilities	13	1643	13837

In Ukraine, there are plenty of eco-friendly resorts such as Bukovel, Truskavets or Zenkov, whose territories are attractive because of their medicinal properties and natural resources.

Seasonality has a special place among the factors affecting the development of tourism. Seasonality important specific problem, which determines the concentration of places of tourist flows due to climatic conditions. Seasonally also affect traditions, fashion and other psychological factors.

Throughout 2013 in Ukraine there are 6412 collective accommodation facilities that 370 (6.2%) of the enterprises more than in the previous year. Number of seats increased by 3037 (0.5%) and amounted to 587 thousand units. An increase in the number of placed in collective accommodation facilities with 7,893,100 people in 2012 to 8,303,200 people in 2013 (5.2%). The activities of collective accommodation facilities characterized by the data in the Table 1.

During the first 9 months of 2014 according to the Ukrainian administration State Border Service of Ukraine was visited by about 10 million tourists. Compared to the same period in 2013 the number of tourists from Belarus and Russia fell almost half. However, in 2014 increased the flow of tourists from Hungary, Slovakia, India and Egypt.

According to the site of a single national agency of Ukraine "Ukrinform" concept of the program of development of tourism and resorts up to 2022 is to increase the flow of inbound tourists in Ukraine twice, and increase the number of jobs in tourism to 1 million. Deputy Prime Minister Alexander Vikulov focused on the fact that the implementation of this program will significantly improve the performance contribution of tourism to the economy. Also on the site "Ukrinform" says that tourism in Ukraine gradually become the industry, which has an impact on the economy of Ukraine. Given the unique opportunities of Ukraine, tourism can become one of the points of the increase. Already, according to National Geographic, the city of Lviv took second place in the ranking of "best cities for weekend ENDA in Europe" in the publication «Lonely Planet» in 2013. Also, in 2013 the world's largest travel site «Tripadvisor» put Kiev in the ranking on the 1st place in Europe and No. 3 in the world.

WTO World Tourism Organization released data that in 2013 the cost of Ukrainian tourists increased by 15% compared with 2012. For comparison, in 2010 the cost of Ukrainians that travel abroad totaled $ 3.8 billion in 2011, residents spent on tour $ 4.5 billion in 2013 - nearly $ 6 billion. With these indicators Ukraine has entered the top ten countries with the growth spending on foreign tourism. According to the State Statistics Service of Ukraine in 2013, more than 23 million Ukrainians went abroad. And in this regard, tourism organizations expect that in 2014, tourists will not slow down the pace and increase revenue. However, the devaluation of the hryvnia and activities taking place over the past year, the bounce of inbound tourism and outbound. In view of this situation Ukraine has lost a lot of foreign tourists. Statistics and analysis of the tourism industry portend Ukraine situation such as in Egypt. Because of the fear of the political situation in the country, people do not go on vacation.

Conclusions

Government of Ukraine should think that the tourism resources of Ukraine - a source of revenue to the state budget finances. Anyway, it is necessary to change the Ukrainian market of tourist services and move towards international standards, which will undoubtedly affect the budget increase. Ukraine has rich tourist resources, and it is important to develop tourism as it can "bump" the economy in the country. The state must do everything to facilitate international cooperation and build strong economic and institutional international relations to improve Ukraine's economy through the development of the tourism industry.

At the moment, Ukrainian tour operators are increasingly paying attention to advertising foreign tourism, domestic tourism and advertising there is little, except for

the well-known areas such as the Carpathians and the Crimea. This is also the reason for the weak development of domestic tourism.

Undoubtedly, Ukraine has all chances to become a developed and strong state. Due to its rich natural resources of the tourism industry in Ukraine can be developed at a level no worse than in other more developed countries. However, to date the development of tourism is compounded by the economic and political situation, which occurs in the south-east of the country.

Settlement of these problems mentioned in the article, will affect how to improve the economic and social development of the country.

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Possibilities for creation of an entrepreneurial university in Kazakhstan

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Abstract

The article describes the features of the new model of university - entrepreneurial university, as well as reflects the characteristics of the Karaganda Economic University, which is currently on a way of creating an entrepreneurial university.

Keywords: competitiveness, entrepreneurial university, Kazakhstani University

1 Introduction

In today's world, the competition is becoming overpowering, penetrating into the internal environment of any company that needs to be competitive at every level of both external and internal environment.

In the external environment, competitiveness is based on the new level of cooperation between the company and its partners, which become important economic actors of the new economy. In the internal environment, an increasingly important role in enhancing the competitiveness of companies is played by employees, providing the utmost impact on the competitiveness of the organization. Formation of new realities in the current economic climate depends on the change of company's management of competitiveness. It is necessary to modify the principles and models of successful entrepreneurship, rethinking of the essence of entrepreneurship, its objectives and content aspects of the activity (work with information, knowledge, management of intangible resources and turning them into assets).

This provision is not new and is especially important for universities in modern conditions.

2 Overview of the study area

Nowadays rather high demands are imposed on universities from the external environment, which include not just consumers, but students as well. Existing, often traditional, ways of meeting these requests do not work. Therefore, today there is a process of creating a new model of university - entrepreneurial university. This model should be a precondition for many Kazakhstani universities to improve the quality of educational services in the first place, and in the future it will be the key to maintain the status of active, qualified social institution.

Creation of the entrepreneurial universities is especially actual for the countries with large supplies of natural resources (oil, gas, natural minerals) among which there is Kazakhstan, where traditionally the resource-oriented economy created. In case of fast-growing rates of new technologies emergence these countries are faced with the task of the innovative economy development and integration into the international scientific and technical community. Thus, universities play a crucial role in the acceleration of the adaptation process, positive changes and development of the entrepreneurial thinking of students, teachers and researchers.

The review of literature shows that the thorough study of the process of creating entrepreneurial universities in Kazakhstan has not been conducted. The nature of entrepreneurial universities is considered in the works of B.R. Clark, G.N. Konstatinov, and S.R. Filonovich, A.O.Grudzinskii et al.

Based on research findings, B. Clark has developed five common transformational elements that are inherent in entrepreneurial university. B. Clark, one of the most famous developers of the given conception, said that the main feature of the entrepreneurial university is the absence of fear to commercialize the generation and disseminate the knowledge [1].

The following definition of the entrepreneurial university can be formulated: "Entrepreneurial University is a higher education institution that systematically makes efforts to overcome the limitations in three areas - the generation of knowledge, teaching and transforming knowledge into practice - by initiating new activities, transformation of the internal environment and modification of interaction with the external environment" [1].

Currently, there are certain attempts to create entrepreneurial universities in Kazakhstan. However, these disparate and isolated cases do not allow conceiving a general picture of the status and prospects of development of entrepreneurial universities. Moreover, the mechanism of formation of entrepreneurial universities in Kazakhstan is indistinct.

As it was mentioned above, B. Clark has developed five common transformational elements inherent to entrepreneurial university: reinforced guiding core, extended periphery of development, diversified funding base, stimulating academic support and integrated entrepreneurial culture.

The given article will consider these elements from the position of one of the Kazakhstani universities -Karaganda Economic University of Kazpotrebsoyuz (KEUK). KEUK carries out training of specialist's at all three levels of national education system: Bachelor - Master - Doctorate PhD. In accordance with state license, university realizes 21 higher education programs and 16 graduate programs. According to the general ranking of universities it was ranked 2nd among humanitarian and economic institutions, and has 15th place in the top 20 best universities in Kazakhstan. All educational programs of the University are included in the top twenty specialties of the Republic of Kazakhstan.

In accordance with the current mission, KEUK, being one of the leading universities of Kazakhstan of economic profile, positions itself as an innovative university that implements educational and scientific policy as a basis for professional growth and personal development of specialists for the economy of Kazakhstan [2].In the process of transformation into the entrepreneurial university, it is required to make conscious efforts to build the university that actively uses innovations and takes risks when developing new practices to significantly change the nature of the activities of the higher education institution in order to be in a more favorable position in the future. Entrepreneurial universities strive to become "resistant" universities and important independent players not only at the regional level, but also nationally and globally.

Let us consider the transformational elements by B. Clarkin KEUK.

1. Reinforced guiding core. According to B. Clark "traditional European universities throughout long time were incapable to independently direct the development" [1]. The same can be also told about higher education institutions of Kazakhstan. During existence of the USSR higher education institutions to a smaller extent, than the European universities, could choose independently the direction of development. In the tough state planned economy all activities of higher education institutions were strictly regulated from the center, from the Ministry. After the USSR breakdown and the independence acquisition the picture in Kazakhstan didn't change strongly, the difference was that there were many private higher educational institutions. State universities continued the activities in those traditions, developed for 70 years of the USSR existence. The majority of private higher educational institutions also performed the activities in old traditions. This results from the fact that former employees of traditional Soviet higher educational institutions became the founders and heads of the majority of private higher educational institutions. Besides, both state, and private higher educational institutions regulated the activities under the strict control of the Ministry of Education and Science of Kazakhstan (MES RK). Certainly, University of Nazarbayev should be noted that was initially planned and created as the University of the western type. Now it is even more often spoken in mass media about autonomous higher educational institutions. MES RK plans to turn a number of state universities into autonomous universities. It is a serious strategic step from the Government of Kazakhstan. However, as B. Clark specifies "Autonomous universities can be passive. They can live past, instead of looking forward. They can be content with what they already became, and not to wish something greater" [1]. The question arises, whether the concept of "autonomous universities" is sufficient that universities of Kazakhstan became entrepreneurial? Clark gives the answer to this question, to make the autonomous higher educational institutions be entrepreneurial "the need new organizational elements which in total characterize entrepreneurial university" [1]. It is possible to tell that the concept of "autonomous universities" is necessary, but insufficient for transformation of higher educational institutions of Kazakhstan into entrepreneurial, other organizational elements are needed. First of all, it is necessary to form a strong team in the higher educational institution, capable "to quickly and flexibly react on growing and changing requests" [1]. Under the strong team is understood both strong group of heads of higher educational institution, and strong groups of departments (chairs).

Specific feature of the reinforced guiding core of KEUK is that themain team of central administration consists of those who work in this institution for a long period, i.e.this is the team that has absorbed the traditional values of the university and has a staunch reputation among staff and students. A further strategic development of our university will be directed at strengthening of the basic elements of entrepreneurial university, among which the most important role belongs to the extended periphery development.

2. Extended periphery of development. Strong management along with the traditional divisions (chairs, departments, laboratories, etc.) shall create the interdisciplinary project-oriented research centers. These centers shall be created for the solution of the interdisciplinary practical problems important for economic and social development of society, i.e. these centers (nonconventional units) are oriented outside the higher educational institution. Problem is in that the heads of the traditional divisions of higher educational institution (deans, heads of the departments and branches) "are rather strong to protect the ownerships. But the departments are incapable to make all that the universities should do now" [1]. Unconventional units must have the flexibility, administration of higher institution can easily create them as well as easily dismiss, but these units must have strong support from the management of the university.

In order to enhance research work in structural subdivisions there was created the Center for planning, coordination and monitoring of research in Karaganda Economic University. The main objective of the Centre lies in strengthening the work on the commercialization of interdisciplinary research at the university and co-ordination of work on the development of innovation infrastructure of the university.

To date, the individual elements of innovation infrastructure of the University have been already established and operated: Department of postgraduate and further education, Master's and Doctoral PhD; Center for planning, coordination and monitoring of research, Center for international programs and projects, Research institute of new economy and system analysis, Research institute of economic and legal research; Distance Learning Center, Computer Center, official website of the University. Information and communication capabilities of the

University library are actively used; connections with the enterprises of the region are carried out as well as commercialization office of innovation and business incubator is organized by the University.

Thus, the university has created successfully operating basic elements of scientific innovation infrastructure of the university, the main objective of which consists in creating favorable conditions for the implementation of scientific and innovative projects of students, undergraduates, doctoral students and faculty of the university.

3. Diversified funding base. To perform the activities productively and effectively, entrepreneurial higher educational institutions shall have big financial resources. State universities of Kazakhstan generally have one or two sources; they are the state support and the payment of students for training. Private higher educational institutions generally have one source of financing – a tuition fee from students. As practice shows, these funds aren't enough for entrepreneurial universities. There is a number of higher educational institutions of Kazakhstan which have an additional source of financing — these are grants and contracts.However, a source of grants is generally the state therefore it can be carried to the first source of financing. Financing sources are still needed. The third source of financing is business companies. Unfortunately, in Kazakhstan business companies aren't often ready to finance projects from higher educational institutions. But on the other hand, higher educational institutions don't possess a capability to implement the projects necessary for business companies.

4. Stimulated academic structures. Traditional structure of higher educational institutions of Kazakhstan doesn't correspond to the structures of entrepreneurial higher educational institutions. Unfortunately, existing departments didn't become the centers or platforms for carrying out the scientific researches, and are engaged first of all in teaching. According to B. Clark "if basic units (departments and faculties) oppose the potential innovations or remain indifferent to them, institutes continue to live as before" [1]. In higher educational institutions of Kazakhstan changes are necessary, and "in order to make the changes happen, departments and faculties shall become entrepreneurial units, improving the relations with the environment and starting new programs, and also finding the third sources of income. Their members will be the part of the central directing groups" [1]. One of the objectives of this research consists in the determination of the attitude of the faculties and department heads to innovations.

5. Integrated entrepreneurial culture.

According to B. Clark "enterprising universities, are in many respects similar to the companies working in the sphere of high technologies, create the culture of activities oriented to changes" [1]. In Kazakhstan the culture of higher education institutions isn't oriented to changes as the core activity of higher education institutions was and remains – training of students, undergraduates, and scientific and innovative activities practically aren't developed. One of the important research purposes will consist in the determination of the organization culture of higher education institutions of RK. The first step to change of organization culture is the diagnostics of existing culture. The following step the determination of the forming mechanisms of "the activities, oriented to changes cultures ". By the researches results B. Clark determined - in order to transform the traditional university into entrepreneurial one, it is necessary to implement five above mentioned elements.KEUK has nearly half a century long history of the economic profile University, which occupies a stable niche, not only regionally, but in the domestic market of educational services.

Changing economic conditions in the country and in the world lead universities to commercialization of the research activities and, as a result, to the capability of selling the outcomes of scientific and technical creativity. In this situation the creation of a system of realization of scientific and innovative products, produced by a higher education institution, in the local and international markets is one of the ways to increase the efficiency of universities within a market economy.

Many higher educational institutions of Kazakhstan want to become entrepreneurial higher educational institutions, and some of them make certain steps in this direction. However they don't know how to pass this way and with what barriers they can face. It means that there is a social demand for this research. Social demand is confirmed by the great interest and desire of higher educational institutions of Kazakhstan to participate in this project as business partners. Through an activities prism these five higher educational institutions in this research also the Ministry of education and sciences of Kazakhstan is interested. Besides, teachers and scientists of Kazakhstan are interested in this research as thanks to this project, the process of the entrepreneurial higher educational institutions creation in Kazakhstan can be accelerated, and they will be able to realize themselves not only as teachers, but also as scientists who are engaged in applied researches. Thus, the demand for this research is obvious both from the heads of higher educational institutions side, and from the staff of higher educational institutions and scientists.

As it was told above, in Kazakhstan applied researches in the field of the entrepreneurial higher education institutions creation, in particular in such scale weren't conducted. At the same time interest in the entrepreneurial higher educational institutions creation grows every year. The gap turns out - on the one hand, more and more higher educational institutions want to become entrepreneurial, on the other hand - there is no accurate mechanism (road map) by means of which it is possible to promote on the way of the entrepreneurial university creation.Insight to the experience of the entrepreneurial universities creation in Great Britain and other countries will allow expanding vision of the heads of higher educational institutions. Social and economic effect will be that all higher educational institutions of Kazakhstan will be able to examine the research results and to plan the way on the entrepreneurial university creation.

3 Adopting relevant technology

In case of the project implementation the methodology on carrying out high-qualitative researches will be used. Research is planned in different regions of Kazakhstan, 5 higher educational institutions of Kazakhstan will be covered. In each higher educational institution the heads of

higher educational institutions and 10 focus groups of the higher educational institutions staff (two focus groups per one higher educational institution) will be interviewed together with foreign experts. Besides, questioning will be carried out among the key employees to determine the organization culture of higher educational institution, the tool of the assessment of the organization culture (OCAI) will be applied for this purpose, intended for diagnostics of the organization culture, developed by the authors Kim Cameron and Robert Kuinn [3]. This tool will allow making identifications of the existing culture of the higher educational institution, both from the head position, and from the position of the higher educational institution staff to understand, whether there are gaps in the understanding of the organization culture. Questioning of the key staff of higher educational institutions on the organization culture will be carried out, both at the beginning of the project, and at the last stage, it will allow revealing if there is any dynamics of the entrepreneurial culture and innovative processes development in higher educational institutions. Such scope of higher educational institutions and deep researches will allow generalizing data on Kazakhstan in general.At the selection of the higher educational institutions from different regions interest of the higher educational institution in this research, term of activities of higher educational institution and availability of the license for the implementation of the educational activities will be first of all considered. In case of employee screening of higher educational institutions for participation in the focus groups it is planned to bring together 8-10 people in each group, and groups will be uniform, for example, in one group - only heads of higher educational institution (deans, heads of the departments, heads of the branches, etc.) and in another – only scientists and teachers of the same higher educational institution. When interviewing the focus groups the methodology will be strictly sustained, in particular questions will be prepared in advance, focus groups will pass in specially prepared auditorium (oval table, video and process audio recording). Interview questions and focus groups will be prepared in advance, relying on five general transformational elements according to Clark [1, 2] and relying on experience of foreign experts. This approach will allow to attach the received survey results to these five elements and to carry out the deep analysis. The preparatory work will be carried out. Before interviewing the heads of higher educational institutions, the insight with their activities is planned, previously having talked over with them and having visited their higher educational institutions. Questions for carrying out focus groups will be formulated relying on five general transformational elements according to Clark and practical experience of foreign experts.

4 Conclusions

The expected scientific effect will be both in the study and its results. The study itself is the first large-scale study in the field of entrepreneurial universities in Kazakhstan. The research results are interesting in the scientific world, as it is interesting to know what the state and prospects for the creation of entrepreneurial universities in Kazakhstan. The socio-economic effect will be in the scale of the project (five universities from different regions of Kazakhstan will participate in the project) and the relevance of the results are the majority of universities from all regions of Kazakhstan will be able to use the results.

The heads of universities participating in the study will be able to determine at what stage towards the creation of entrepreneurial universities they are. In five universities from different regions there will be seminars and conferences where they will present the results of research and experience shows the UK and other countries.

The applied research of this scale will be a breakthrough for Kazakhstan, as previously, such studies have not been conducted. The research results will help to develop the applied research in the field of entrepreneurial universities with the participation of international experts that will give impetus to young scientists in conducting such research.

For the results dissemination the meetings with the heads of five universities from different regions of Kazakhstan will be organized, where the researches were done, the monograph on the subject will also be presented. According to the study in each institution seminars and conferences will be organized. All materials will be transferred to the universities for reference and practical application. Through these activities, many universities of Kazakhstan will be informed of the research results. The research results will be published in magazines with impact factor, project participants will perform at scientific conferences, thanks to these actions the results will be open to the community of scientists.

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Use of system dynamics and simulation in modeling and analysis of vaccine supply chain management

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Abstract

Over the last century or more, immunization programs have contributed massively to public health advancement, significantly increased longevity and reduced child mortality rates, and to economic growth, development and prosperity across the board for most of the world. Consider, for instance, the success the global healthcare agencies and nations have had in eradicating small-pox, the "scourge of mankind" which had killed an estimated 300 million people in the 20th century alone, and in almost eradicating poliomyelitis (with only a few hundred cases reported in the last year in Pakistan, Afghanistan and Nigeria).

Keywords: vaccine, supply chain management, system dynamics, system modelling

1 Introduction

Despite the significant and indisputable economic benefits of immunization, vaccine supply chain management is not easy task. There are given the number of different actors involved (the governments of a host of countries, international health monitoring and disease-control organizations such as WHO, the US Centers for Disease Control, UNICEF or the United Nations Children's Fund, and GAVI or the Global Alliance for Vaccine and Immunization, public health planners, the pharmaceutical industry, clinics, hospitals and healthcare providers and the 3rd Party Logistics, or 3PL, providers). Also we have a slew of different factors or parameters relating to the clinical and regulatory environment (e.g., safety, efficacy, probability of success, and operational effectiveness), economic or commercial considerations (e.g., scalability, cost, and profit potential, which would depend on market shares and sales volumes, growth rates and gross or net margins) and the operational and strategic aspects of the vaccine supply chain or system.

Since the business of making vaccines became a commercial proposition, profitability has often been elusive, according to Lagerwij, et. al [1]. The economics are difficult: Costs of development and production, already high, are rising. Profit margins historically have been lower than those of other pharmaceutical products, in part because of the complexities of manufacturing and distributing vaccines as well as their stringent safety, testing, and quality requirements. And scaling-up of immunization programs along with the introduction of new vaccines have put a significant strain on decades-old logistics and delivery systems.

More importantly, the "winner-take-all" nature of the vaccine market dynamics translates into a rather limited number of suppliers for each product class, with high costs and associated risks representing major challenges to the "winners" in the vaccine market ("…compare the 38\% cost of goods sold (CoGS) with 21% for pharmaceuticals…The average vaccine takes 10.71 years to develop and has a 6% chance of making it to market…"). As a result, many major manufacturers, especially in the United States, have left the market, leaving 90% of the world's production and two-thirds of R&D to companies in Europe and elsewhere.

On the one hand, the vaccine value chain economics depend on the ease and accuracy with which vaccine sales can be projected or predicted, compared with other pharmaceuticals (pediatric vaccines being more readily forecastable based on annual birth counts, compared with hard to predict volume for vaccines targeted at limiting unpredictable outbreaks, e.g., H1N1 and other influenza viruses), since poor forecasting can result in delays or shortfalls in delivery, additional costs, and risks such as the loss of reputation, for instance.

On the other hand, a centralized, well-managed supply chain can get the right product to the right place at the right time, reducing waste, meeting market demand, and reducing operating costs. However, given how vital it is to ensure product stability and the limited capacities of many markets in this respect, a major obstacle to delivering vaccines to populations in the developing world is the temperature sensitivity of such products, necessitating the use of expensive but not very reliable cold chains for storage and distribution.

A number of recent developments have radically affected vaccine supply chain economics: i) live-attenuated vaccines (LAVs) are more effective as substitutes for inactivated versions, requiring a lower dosage and less exposure: once they are evaluated for safety and efficacy, LAVs may help reduce operational costs, carrying costs, and waste; (ii) a new wave of vaccines, e.g., DNA vaccines, stimulate a strong cellular response and are safer than LAVs, and are relatively easy and inexpensive to design, produce, and transport because they do not require temperature-controlled environments, as well as easier to administer, allowing vaccination teams to use less sophisticated and less expensive equipment. For instance, a study demonstrated that making a pentavalent vaccine thermostable increased its availability from 87% to 97%.

2 Vaccine Supply Chain Management

A supply chain describes the flows of merchandise and information from suppliers to customers. There are many components in a supply chain such as suppliers, manufacturers, distributors, retailers and customers. The simple supply chain can be represented by network with several stages that consists of multiple facilities. The main purpose of supply chain management is to maximize the overall value of the entire supply and distribution system. Products are manufactured and distributed in the right quantities, to the right locations at the right time, in order to satisfy demand at minimum cost. Vaccine is the biological product which is made from microorganisms to provide immunity and defend from diseases. Vaccine supply chain is built from five primary processes [2]:

- Inbound logistics: In this process we receive ad store raw materials.
- Operations: Here we transform raw materials received in previous process into vaccine dosages.
- Outbound logistics: These activities are associated with gathering, storing and distributing vaccines to physicians and pharmacies.
- Outbound logistics: These activities are associated with gathering, storing and distributing vaccines to physicians and pharmacies.
- Sales and marketing: These activities induce consumers to purchase vaccines and enable them to buy it.
- Services: These activities are associated with providing services to enhance or maintain the value of vaccines.

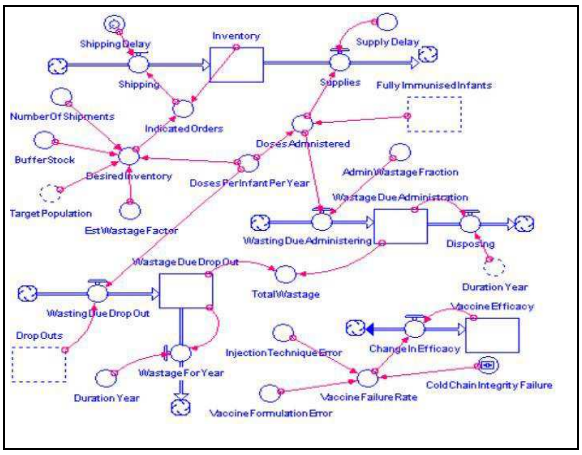

FIGURE 1 Vaccine Management Sector

Vaccine supply chain management is the key to the success of immunization programs. There is need to monitor the management of vaccines as well as have them replenished regularly in order to prevent over and under stocking which may lead to expiry of vaccines and low coverage respectively. We should represent our dynamics model in form with a minimum wastage. In Figure 1 we can see that vaccine wastage is the proportion of vaccine supplied but not administered to the recipients.

There are some issues that make supply chain model in vaccine harder. Because usually supply chain in any sphere examines procurement, production, transportation routes and types. But in vaccine management we should consider some additional issues:

- Temperature requirements during transportation and storage. We should use cold chain for some vaccines. Also most vaccines should be transported within specific temperature range.
- Vaccines have a limited shelf life. Some vaccines expire in 20-30 days.
- There may be significant fluctuations in the vaccine supply chain from international donations.
- Vaccine demand can be stable or may be campaigns for a particular vaccine immunization.

3 System Dynamics model of Pediatric Vaccine Supply Chain in Kazakhstan

The problem of managing the vaccine supply chain and determining the optimal stockpile exists in our country too. Distributing vaccine from manufacturers to the final recipients is composed of a series of procurement, storage, shipment and other related activities. One of the challenges is that vaccine demand and supply are variable. In Kazakhstan the demand for vaccines is changing exponentially because of the fluctuating growth in the birth rate. Additionally, vaccines are also used for the purpose of immediate response to disease outbreaks. Large quantities of vaccines are often stocked for mass vaccinations to prevent disease or to provide routine immunization of children. Vaccines are supplied by international organizations, and can come from multiple sources. It is difficult to coordinate orders from different suppliers. Furthermore, information provided to vaccine manufacturers can often be unreliable. The lack of good data leads to inaccurate demand forecasts, which is a critical impediment to proper planning. It is also important to recognize that vaccine supply considers both equity and efficiency. The goal is to provide vaccines uniformly to everyone in the system, while also ensuring that children can be immunized on time referred in the immunization schedule. To account for the trade-off between equity and efficiency, it is important to balance coverage within an optimal vaccine system design.

The main goal of the model is to simulate the behavior of vaccine supply where the optimal stockpile level for main distributor (Vaccine Main Stockpile) and dynamic of changing of it will be shown. The model simulates the simple vaccine supply chain in our country over time. There was made an assumption in the model that the main distributor center to all regions which is called as Vaccine Main Stockpile in the model is replenished just from one manufacturer called Vaccine Production.

3.1 THE LOGIC OF THE MODEL

System Dynamics (SD) is a computer-aided approach for analyzing and solving complex problems with a focus on policy analysis and design and also this approach uses a perspective based on information feedback and delays to understand the dynamic behavior of complex physical, biological, and social systems [3]. There are two software programs that were designed to facilitate the building and use of System Dynamics models: AnyLogic Simulating Software and Vensim. AnyLogic is a visual modeling tool

that allows you to conceptualize, document, simulate, analyze, and optimize models of dynamic systems. It provides a simple and flexible way of building simulation models from causal loop or stock and flow diagrams.

We used system variables, arrows to make flow diagram. This diagram will represent structure of the system. In order to simplify, we consider the number of children that must be immunized divided into two groups by age counted in months, vaccine production and the number of doses injected taking from Vaccine Main Stockpile in supply chain. Moreover, we think that the number of children, vaccine production capacity and Vaccine Main Stockpile are core elements in supply chain of this model. From the angle of management, Children-Vaccine Production-Vaccine Main Stockpile in supply chain is complex and could be regarded as a system. In order to study the real system, we might build a simulation model. Firstly, we should determine the composing elements of the simulation system and the causal connections among them based on the real system. The elements associative directly with the system are children that must be immunized divided into two groups by age counted in months, vaccine production and the number of doses injected taking from Vaccine Main Stockpile. Starting from this point, we could determine all the composing elements through cause-effect analysis. According to the concept of system dynamics, we could divide the elements into levels, rates, auxiliaries and constants. Then, we could use the AnyLogic Simulation Software to build the flow diagram of the system (Figure 1). The main parameters of the model are listed below:

- main distributor stockpile level;
- number of doses for immunizing;
- immunization rate of the country;
- birth cohort;
- death rate;
- number of doses per fully immunized child;
- vaccine wastage rate;
- safety stock.

To make an order for vaccine supply at first we should anticipate the future demand of vaccine doses by analyzing birth and death rate which impact the birth cohort.

The number of doses n can be calculated by formula below:

$$n = i * b * d * \frac{1}{1-w} * (1 + r) \quad (1),$$

where i is immunization rate which is assumed to be about 75% in our country;
b is a birth cohort, there will be an assumption that average birth cohort is 360000 per month in the whole Kazakhstan;
d is the number of doses per fully immunized child which will be assumed as equal to 3 doses per child;
w denotes the wastage rate which is about 0.3 (30%);
r is reserve stock rate which should be about 0.25 (25%).

To determine the number of vaccine doses which will be required in the following years the same formula will be used. Just one exception is that we will not be taken into account the safety stock and all vaccines in the inventory:

$$n = i * b * d * \frac{1}{1-w} - s, \quad (2)$$

where s denotes the number of doses in the inventory.

Data required for anticipating the birth cohort should be derived from national committee of statistics or it's branches, but for this model I will make just assumption.

According to national or regional records of doses of vaccine the formula shown below is used to estimate the wastage (f):

$$f = \frac{(v+c)*d}{n}, \quad (3)$$

where v is the number of vials opened to use;
c is the number of closed vials which were destroyed because of failures in the cold chain;
d is the number of doses per vial;
n is the number of injected doses.

Thus, the wastage rate is calculating by the following expression:

$$w = 100 - \frac{100}{f}, \quad (4)$$

The factor of wastage where the stockpile size is taken into account can be calculated by the following formula:

$$f = \frac{(b+c-d)*e}{n}, \quad (5)$$

where b is the vials in stock which are suitable for using at the beginning of the year;
c is the number of vials issued from the inventory to be used for throughout the year;
d is the vials in stock which are suitable for using at the ending of the year;
e is the number of doses in one vial;
n is the number of injected doses.

The flow diagram represented in Figure 2 above includes 62 variables. There are 4 main stockpiles: Vaccine in bulk production, Vaccine bulk, Vaccine in filling pipeline and Vaccine final. Also there are 5 main rates like bulk production starts, bulk production, filling starts, filling, deployment, and 2 additional rates corresponding to the incurred costs like fixed costs and public health costs.

The model focuses on the primary objective of the pediatric vaccine stockpile to respond to normal demands over time. Appendix A provides the hypothetical values of constants used in the model for the stockpile supply chain model.

We focused on framing 1 described in the chapter 4 (optimization of the polio vaccine stockpile) to model the pediatric supply chain. Before starting to model we should understand which factors impact to the final vaccine stockpile level and vaccine production.

So firstly, the model relies on the plausible assumption that the penalty associated with each dose of unmet vaccine needs exceeds the costs of stockpiling a dose (costs flow is represented in the below of the Figure 2). If this assumption does not hold, then no economic justification exists for the stockpile, because the costs of the consequences do not exceed the stockpile costs. In addition, there is ignored expiry by assuming that we use vaccines for outbreak response soon after they enter the stock of final vaccine, which is possible if vaccine demand is deterministic and filling capacity is sufficiently high.

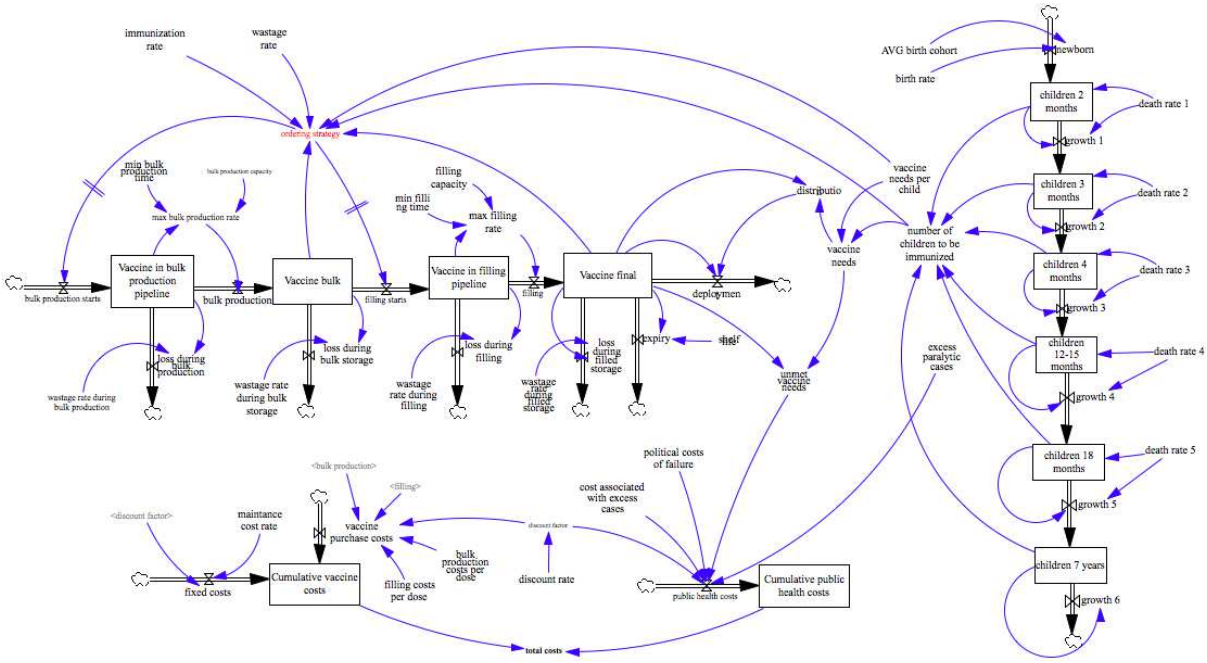

FIGURE 2 The flow diagram of the simulation model

Secondly, the next assumption of a fixed delay process for expiry, as in the model, is appropriate if disposal of expired vaccine lots occurs on the basis of expiry dates set at the time of filling, which is current practice. Alternatively, in the future random tests may possibly determine the disposal of lots or batches. In that case, a more appropriate model would disaggregate the stock by age, with the hazard of expiry increasing with age. In the model, we neglected expiry by assuming that we could receive newly filled vaccine only a short time before its required use, but this assumption does not hold if filling capacity is low relative to vaccine demand, filling and production costs increase over time, or vaccine demand is highly stochastic.

The ordering strategy here determines both bulk production starts and filling starts and may use information about current levels of vaccine bulk and vaccine final as well as the predictable expiry of vaccine final.

Vaccine supply chain also depends on the technical characteristics of the bulk production and filling processes which determine the appropriate model for the filling and bulk production delays. From the perspective of the stockpile owner, the production delay might look like a fixed delay, with no distribution around the time that doses arrive due to a single time of delivery. From the manufacturer's perspective, however, a given order of bulk vaccine might potentially get produced over time, with production of some doses completing before others, which would suggest a first- or low-order delay. Filling involves a relatively fixed delay associated with testing batches of final product, but if many filling lines exist, each line might become available at a different point in time such that the delay could look more like a low-order delay. Given that the exact time that vaccine becomes available plays an important role in the event of potential shortage of vaccine, the choice of the delay in the model should reflect the physical reality of the process and the relevant perspective of the analysis.

The forecast of vaccine demand represents the key driver of decisions regarding the stockpile. In case of pediatric vaccine supply chain the vaccination i provided periodically according to the routine defined by healthcare centers fro children. Therefore forecasting future demand focuses on the birth rate and amount of stockpile remained. As this model is trying to minimize the stockpile level of vaccines to diminish wastage during providing enough vaccine for routine immunization anticipating a future demand is the main issue. The vaccine demand depends on both the stochastic risks and the stock of vaccine final, and in two different ways. If the vaccine demand exceeds the maximum output of filled vaccine, then this will likely create new demand due to the natural expansion of the birth cohort. This leads to a positive (reinforcing) feedback loop around vaccine demand, since the likelihood of unmet vaccine needs lead to more demand which leads to greater likelihood of unmet vaccine needs.

The next problem in vaccine supply chain which was not included to the formulation of the optimization model is the physical location of the stockpile. However, the trade-off between costs and risks of the stockpile may depend on the locations of the facilities.

Equations used to calculate the variables and levels from the simulation model are described below. The number of doses of vaccine which was distributed to the final stock d is derived from this formula where d_{max} is the maximum deployment rate:

$$d = MIN(d_{max}, d^*). \quad (6)$$

The number of deployed vaccine is derived from the formula below where V_f denotes Vaccine final, v denotes needs of vaccine per child, n is the number of children to be immunized. t_{depl} is the minimum time to deploy vaccine and t_{distr} is the minimum time for vaccine distribution. In the model assumed that both of these times are equal to 1 month just for simplicity.

$$\frac{dDV(t)}{dt} = MIN(\frac{V_f}{t_{depl}}, \frac{v*n}{t_{distr}}). \quad (7)$$

So the total vaccine need during fixed period of time can be calculated v_n=v ×n (8)

Amount of final vaccine stockpile is equal to:

$$\frac{dV_f(t)}{dt} = f(t) - d(t) - \frac{V_f(t)}{t_s}, \quad (9)$$

where f is the amount of doses in the filling and t_s is shelf-life of vaccines which is assumed to be about 60 days.

Amount of vaccine in the vaccine bulk (b is bulk production):

$$\frac{dV_b(t)}{dt} = b(t) - f(t) \ (10).$$

Amount of vaccine doses in vaccine bulk production pipeline:

$$\frac{dV_b^p(t)}{dt} = bs(t) - b(t) \ (11),$$

where bs is bulk production starts flow in the flow diagram.

The graph of deployment level created by the model to analyze is represented in Figure 3. As we see it is not linear because of that birth rate and immunization rate are not constant which makes the model stochastic.

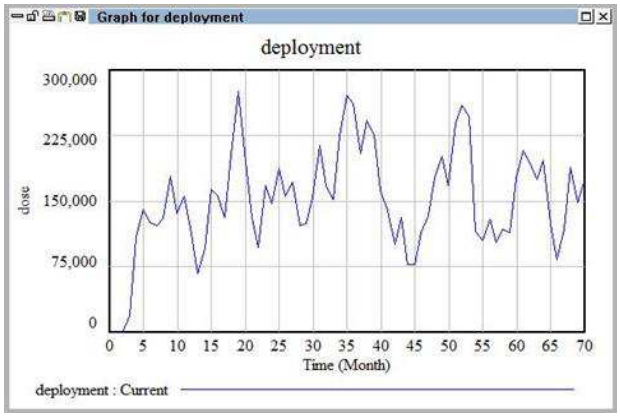

FIGURE 3 The deployment rate

3.2 THE RESULT OF MODELING

The whole supply chain should operate according to the birth cohort and keep sensitive to the change of normal demand for vaccine. Normal demand for vaccine depending on birth cohort is the origin of the production of vaccine and determining the optimal vaccine final stock. In supply chain, information of demands is transferred in form of orders. Orders are the results after processing different kinds of information and guesses and the data of orders often distort the real market information, thus leading to the phenomena of bullwhip effect. I think that number of newborns, average vaccine shipping rate which demands on vaccine production capacity and number of vaccines injected are core elements in pediatric vaccine supply chain.

Figure 1 represented above explicitly shows the accumulation of vaccine costs from bulk production, filling, and maintenance of the stockpile, the accumulation of public health costs due to excess cases and political costs associated with unmet vaccine needs, and all the inputs determining the flows (e.g., the different wastage rates that determine loss out-flows).

This model helps create a common platform for discussions among the various stakeholders and decision makers who must ultimately design and implement the stockpile. There is demonstrated with a simple example that optimization may lead to useful results in terms of the ordering strategy that minimizes the present value of public health and vaccine costs, although I emphasize that these hypothetical results depend on simplifying assumptions in the stockpile and model.

There is the need to address various issues in order to fully optimize the stockpile in the context of all its complexities described below:

- The technical details of the stockpile, such as capacity constraints and delays in the production and expiry processes, impact the dynamics within the supply chain and require careful consideration.
- The relationships between vaccine production risks and vaccine demand as well as between vaccine demand and financial constraints lead to additional feedback loops that merit further exploration.
- The perspective impacts the objectives and therefore the optimal policy for a stockpile.
- The vaccine demand is inherently stochastic, which implies some probability of unmet vaccine needs even for a very large stockpile.

4 Conclusions

Due to interruptions in the vaccine supply chain, vaccine shortage and low immunization coverage, some epidemics still occur in many countries in the world. If even some block of population won't be vaccinated against hazard viruses or the herd immunity will be insufficient in the epidemic case, the virus or epidemic will continue spreading among susceptible population till the pandemic cases. The great solution here is to immunize all children by recommended routine in every country. So in this case deciding the problems related with vaccine supply is actual nowadays to provide countries with enough number of doses.

There are have been used many variety of approaches in order to understand supply chain management problems in vaccine. But they have acknowledged shortages. Therefore to better understand vaccine supply chain problems and to generate insights that may increase the immunization coverage effectiveness, help to avoid vaccine stockpile shortages and diminish wastage, this project applied system dynamics modeling and field study research methods.

In this paper, we used System Dynamics and simulation to model and analyze the role of efficient and effective supply chain management in delivering the wide ranging benefits of immunization.

A set of important attributes that must be considered when deciding the number of doses for replenishing the pediatric vaccine stockpiles is analyzed by simulating the flow diagram model using system dynamics tool. A set of utility functions is also proposed, based on the knowledge of the vaccine supply chain.

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A technique of research of expectations of consumers of services of small and medium business in RK

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Abstract

In article development of a technique of carrying out high-quality researches of expectations of consumers of Small and Medium Enterprises in service sectors and formation of convincing proofs for heads of SME that it is possible to increase competitiveness of business due to the best understanding of expectations of consumers and giving of a powerful impulse to heads of SME at the level of all Kazakhstan for change of their relation to improvement of quality of services is considered.

Keywords: support of business activity, service SMB, business – educations for entrepreneur, increase of competence of entrepreneur

1 Introduction

The development of small and medium enterprises (SME) is a priority in Kazakhstan, including in service sectors of the economiy. As it is noted in the message of the President of the Republic of Kazakhstan in 2014: "The development of small and medium enterprises is the main tool of the industrial and social modernization of Kazakhstan in the twenty-first century" [1]. According to the experience of the developed countries, in order to survive in the market economy, SME managers need to improve the quality of the services provided. Today in Kazakhstan there is almost no information about how competitive SME in Kazakhstan are. We do not know the consumers' expectations for SME activities. SME managers do not know how to increase the competitiveness of the company and how to get customers' loyalty. It is unknown why SME managers do not consciously seek to increase their customers' loyalty? It is not clear what the customers' expectations in Kazakhstan are. We have not found answers to these questions from the secondary data; no one in Kazakhstan has ever conducted a research to determine the customers' expectations.

2 The Main part

Therefore, the purpose of the project is to conduct a qualitative research of the consumers' expectations of SME in service sectors and to form a strong evidence for SME managers that it is possible to increase business competitiveness through a better understanding of consumers' expectations and to give a powerful impulse to SME managers at the level of all Kazakhstan to change their attitude towards the improvement of the services quality.

Project Objectives:

- To conduct a qualitative research of consumers' expectations of SME in seven regions of Kazakhstan, ten service sectors, and to assess the quality of services provided through the modified SERVQUAL model, to identify the gaps between what consumers get and expect through the "gaps model" [3].
- To collect 70 small business managers from 10 service industries that are willing to participate in this research and to make an interview with them to find out what they think consumers expect and how they evaluate the quality of the services provided.
- To collect 140 SME consumers from 10 service industries that will participate in focus groups and to find out what the consumers' expectations in Kazakhstan are.
- To determine the nature of expectations, how it is formed by the services consumers and to find the gaps in understanding of services quality between SME managers and their customers, as well as to find out whether the consumers' expectations differ in different regions of Kazakhstan.
- To identify ways in which SME managers can manage these expectations, in order to influence in a favorable way the consumers' perception of services and what managers can do to exceed customer expectations.
- To visualize the results of the research and to bring convincing evidence to SME managers from different regions of Kazakhstan, it is necessary to develop online courses for the services quality, to make a video about the research conducting and the practical results for SME managers, to prepare a teaching manual on the research subject.
- To disseminate with the support of partners (RCE) the courses and video in SME community, to present the results of research in the form of journal articles with impact factor and to make presentations at scientific conferences.
- To prepare one doctor and two masters in the research topic.

The expected results:

- Consumers' expectations of SME will be determined in seven regions of Kazakhstan in ten service sectors through the modified SERVQUAL model and the gaps will be identified between what consumers get and expect through

the "gaps model" [3]. The results of the research will be presented and convincing evidence will be provided to SME managers from different regions of Kazakhstan, about how to increase the competitiveness of their business through a better understanding of consumers' expectations and eliminating of the negative gaps.

- With the support of partners the results of the research will be disseminated in Kazakhstan regions, through a series of courses to improve the services quality and production of video with SME managers and its screening.

- The assistance will be provided to the project partners by involving RCE employees to this research and by providing the Problem-resolving Map for the services quality, basing on which, Kazakhstan SME managers will be able to better understand the consumers' expectations.

- The contribution will be made to the development of applied research in Kazakhstan, through participation in scientific conferences on the research topics and through publication of articles in scientific journals with impact factor (at least 3 articles).

- The research will identify the key success factors (KSF) in ten sectors of the services business and in seven regions based on the consumers' expectations. Project participants will be given the sight with KSF and with approaches of their use to improve the services quality.

- Qualified scientific personnel will be prepared for Kazakhstan on the research subject, one doctoral student and two masters.

3 Project scientific novelty and practical implications

The well-known guru in the services quality, author of SERVQUAL model, A. Parasuraman, together with L. Berry, and V. Zeytaml conducted some research on the topic "Understanding of the consumers' expectations" [2]. The focus of this research was to study the direct interaction between consumers and organizations from the perspective of operational management. The research was conducted in the United States. The authors formed focus groups of consumers of different services, in order to highlight differences between the different branches of services, as well as to ensure that their results represented a broad cross-section of services sector. At the stage of qualitative research, the interviews were conducted with sixteen focus groups to explore the nature and structure of the consumers' expectations in the United States. The research authors were guided by three important criteria: 1. Eight of the 16 focus groups were made up of 'pure' services consumers (with minor material components), while the remaining eight were made up of consumers of services, which include significant material components. 2. Each of the eight focus groups consisted of two categories, four focus groups were staffed by representatives of the service-providing organization, and four others were staffed of the final consumers. 3. In its turn, each of the four groups comprised half of "experienced" and half of the "inexperienced" services consumers. The "experience" was determined by the duration of the services use and the number of contacts with the service provider. To take into account the geographic diversity, focus groups were formed in five cities of the United States: Atlanta, Chicago, Dallas, Seattle and Rochester. The research sponsors were eight major companies from different service branches of the consumers of which focus groups were formed. Essential research results include:

1. Consumers expect basic services to be provided at a level according to the prices they pay, "consumers expect companies to do what they should do" [2], i.e. the consumers' expectations do not go beyond reasonable. For companies that provide services, the present conclusion represents a significant opportunity to improve the reputation by increasing attention to the basic service.

2. The service process is the key to exceed the customers' expectations. The research authors have divided the consumers' expectations into five categories: reliability, material components, responsiveness, credibility and empathy. Out of the five categories reliability "is connected to the outputs of the service process", and the other four ones "largely depend on the service process itself" [2]. In other words, the accuracy and commitment (category - reliability) are judged by the consumers after receiving services, the other four criteria are judged while consuming services. The results showed that the reliability is paramount for consumers. This means that companies that provide services "... the default should be accurate and committed suppliers of the services they promise to provide" [2]. Exceeding the expectations in this category seems unlikely according to the research authors. As for the four process categories, the service provider is possible to exceed the consumers' expectations.

3. Consumers' expectations are duplex and dynamic. According to the research results, the authors suggest that consumers' expectations have two levels: desired and adequate. The desired level corresponds to the service that the consumer wishes to receive. The adequate level corresponds to the service that the consumer considers acceptable. Between the two levels there is a tolerance zone. According to the authors, the adequate level of service is more dependent on the particular circumstances and, therefore, changes more than the desired level. "The recognition of the duplex and dynamic nature of consumers' expectations and understanding of the factors on which they depend can help managers to reduce the gap between the consumers' expectations and perceptions and even to surpass them".

4. Consumers are interested in long-term relationships. The research authors found that many of the respondents "... want to be regular clients ...". As the research authors noted in their article, "... consumers' expectations for long-term relationships with service providers usually do not occur".

Following the results of their research, Parasuraman with collaborators have developed a conceptual SERVQUAL model of the assessment of services quality. According to this model, consumers, evaluating the quality of services, take into account the ten variables. Later, the same authors proposed a modified SERVQUAL model, which includes five variables that determine the service quality: reliability, credibility, material components, responsiveness and empathy. In addition, following the results of their research, Parasuraman with collaborators

suggested the "gaps model" [3]. Within this model, it is possible to define four categories of gaps, the value of which wholly or partly depend on the employees providing services: delivery gap; design gap; organization gap; communications gap.

From the above-mentioned it follows that the research was being conducted in five cities of the United States and financed by large service companies from different sectors of economy. The data obtained are applicable for all companies of service industries. However, the results of this research can not be transformed into Kazakhstan. Firstly, the purposes of the research conducted by Parasuraman's group differ from the objectives planned in this project. One of the key objectives of Parasuraman's research with a group is to study the expectations nature and to develop a model that determines the services quality. In this project, the main purpose is to apply the models developed by Parasuraman and his group in 10 SME service sectors and to provide an impulse for SME managers in understanding the importance of the consumers' expectations research. Secondly, the research subjects differ. If the research subjects in Parasuraman's group are large companies, in this case it's small and medium enterprise. Thirdly, it is difficult to convince SME managers from Kazakhstan, basing on the research results of the group led by Parasuraman that is necessary to study the consumers' expectations, because the data were obtained in the United States, whose economy is significantly different from the economy of Kazakhstan.

In connection with the foregoing, the scientific novelty of the project is the following: it will be the first time in Kazakhstan when extensive primary research of consumers' expectations of SME will be conducted in ten service sectors of seven regions, and a mechanism to change SME managers' attitude towards the services quality will be represented.

Project implications lie in the fact that the research and its results can become a driving force in the movement of Kazakhstan SME towards understanding the consumers' expectations. When the managers of 70 SME of 10 service sectors from different regions are directly involved in the project, when they hear themselves firsthand (focus groups) what their consumers want and make sure that consumers' expectation is a powerful mechanism using which they can significantly improve the competitiveness of their business, it will give an impulse through the whole Kazakhstan. With the support of the partners (RCE), it will be possible to change the consciousness of SME managers, that without the knowledge of consumers' expectations it is almost impossible to survive in the face of increasing competition. Project implications world-wide consist in reporting the research results to the global scientific community. The research results will be published in three journals with impact factor, the participation in 3-5 conferences on the subject is expected, as well as the development of courses (workshops), the production of the video (90 min.) and the creation of teaching manual on the services quality. These steps will help to introduce the research results to different parties concerned not only nation-wide, but also world-wide.

Most SME managers in Kazakhstan are interested in improving the competitiveness of their own business. However, they do not know how to improve this competitiveness, in particular by improving the services quality, there is a social demand for research aimed at improving the services quality. This is also evidenced by the experience of the project supervisor, who had opportunities to meet Kazakhstan SME managers and to find out their needs within his experience in teaching (for 20 years) and in consulting services (14 projects). There is a demand for such research from the Regional Chambers of Entrepreneurs. In order to promote the SME development in Kazakhstan, the Government of Kazakhstan in autumn 2013 established the National Chamber of Entrepreneurs, and on October 8, 2013 in 14 regional centers of the country and in the cities of Astana, Almaty (16 in total) Regional Chamber of Entrepreneurs (RCE) was established. One of the key objectives of RCE is the growth and development of the business sector in each region of the country. In the action plan of RCE we can mark the following aspects related to the research topic:

- Development and launch of the project aimed at the business development and support "Strong business is strong Kazakhstan";
- Development of the Entrepreneurs Problems Map;
- Register of problematic issues of the entrepreneurs and the Map of their resolution.

The RCE's interest in this project and its results clearly confirms the acceptance of the majority of RCE to participate in this project as a business partner. Through the prism of the RCE activities the Government of Kazakhstan is also interested in such research. In addition, Kazakhstan young scientists studying at doctor and master's programs in management are interested in this research, because due to this project, they can acquire the skills in conducting research at the level of Western countries and to publish their results in journals with impact factor. Thus, the demand for this research is obvious, both from SME managers, RCE managers and employees, and young scientists.

As it was said above, in Kazakhstan there are not almost any applied research conducted in the field of management and marketing, particularly in the field of evidential management. At the same time, every year the number of graduates from master's and doctor's programs grows, including management and marketing program. It turns to be a gap, on the one hand, there are more researchers (scientists), but on the other hand, the number of publications in journals with impact factor has not significantly increased. In addition, not all young scientists have the skills on the methodology in applied research. Publications concerning the research results will allow other young Kazakhstan scientists to join such researches. Thus, this project meets research (applied) and technological (research methodology) needs of Kazakhstan. Social and economic effects will be that with the help of the partners, the research results will be disseminated among other SME managers of Kazakhstan regions.

4 Research methods

In the project we will use the methodology of conducting

qualitative research, which was used by the group led by Parasuraman, with minor changes, with the respect of the objectives of this project. The study is scheduled in 7 regions of Kazakhstan, will cover 10 service sectors of small and medium enterprises: car workshops; educational centers; advertising agencies; travel agencies; beauty salons; coffee houses; online shops or IT-services; hotel business; shopping boutiques; consulting services. In each region 10 firms will be selected, one from each service branch, 10 interviews will be held with managers of these firms, and 20 focus groups will be formed with the consumers of these firms (two focus groups per one firm). This coverage of regions and service industries will allow summarizing data for the whole Kazakhstan. Selecting companies from 10 service industries, we will take into account the duration of the company and whether it belongs to SME. The criteria for selection will be the following: the work period of the firm (at least 5 years on the market) and the desire of the SME manager to participate in the project. Selecting the consumers to participate in focus groups, we plan to collect 8-10 people in each group, and the groups will be homogeneous, for example, in one group there will be only women, consumers of the beauty salon, and in another one there will be only men, the consumers of the same salon. When conducting interviews and focus groups, we will strictly observe the methodology, in particular we will prepare the questions beforehand, focus groups will be held in specially prepared rooms (oval table, video and audio recording of the process). Questions for interviews and focus groups will be prepare in advance, basing on the modified SERVQUAL model and the "gaps model" [2-5]. This approach will allow to attach the obtained results of the questionnaire to these models and to make analysis. The preparatory work will be carried out before holding interviews with SME managers, we will analyze their activities by preliminary talks and by visiting their business is possible, and then, together with them we will represent in the form of a scheme their operational activities (if there are several activities, we choose the main one). This scheme of operational activities will be necessary during the interviews and focus groups, as well as for data processing.

As critical points we can note some of the steps: coverage of 7 regions of Kazakhstan (about a half, 7 out of 16 regions), the partners (RCE) of some regions may refuse to participate. Actions: attraction of other regions, moreover, all 16 regions showed great interest in this research. Search and selection of companies from small and medium enterprise from 7 regions, managers of which will agree to participate in the project. Perhaps in some regions it will be difficult to find managers appropriate for the project from 10 service industries. Action: more time for this stage and asking the partner (RCE) for help. With regard to other risks.

Risk of failure to hold interviews with SME managers according to a plan, interviews will be held by the research supervisor of the project and a doctoral student, so there is the replaceability.

Risk of failure to hold focus groups with consumers according to a plan, 4 people will act as moderators: research supervisor, doctoral student and two masters. But since in each region focus groups will be held consistently, two of the moderators will be involved, and the other two will be for replacement.

Risk of financial operations, including the lack of funding to complete the research due to cost overruns or improper planning. The project supervisor has the experience in implementing projects, besides, one of the masters with the work experience in the financial sector, will monitor the funds.

Risks associated with the video production there are two people involved in the project who have experience in shooting and editing movies, so there is the replace ability in this matter, i.e. no additional investments and funds required. Concerning the alternative ways of implementing the project, we have not found them.

The project is based on the ideas belonging to the project supervisor. The ethical management procedures will be respected, in particular, the maintenance of high standards of intellectual honesty and avoidance of scientific data fabrication, falsification, plagiarism, false joint authorship, the use of the collective research data and conclusions of the research by individual members, without the consent of the other members.

The intellectual property rights will belong to the project authors, based on the agreement between them. The authors of intellectual property created in the course of the project, will be those participants of the project, who have made the intellectual contribution.

5 Group of project realization and control

The project manager, the director "The Kazakhstan institute of marketing and management", the expert in the field of management, Cand.Tech.Sci., associate professor Ekonomiki Vysshey of the Certifying Commission of RK, the doctor of science of Latvia. In the project will be engaged in the general management and researches, bears responsibility for timely implementation of the project.

The expert from Latvia, the rector of ISMA (Information Systems Management Institute), the author of a row article and reports at conference on a project subject.

Suggested level of Expertise: PhD (one person), MA (two persons), Expert (one person)

TABLE 1 Schedule of the Research

№	Names of tasks, event concerning their implementation	Duration (in months)	Commencement of work execution (dd/mm/yy)	Years of project implementation		
				1st year	2rd year	3rd year
1	Project group meeting and project plan approval	1	05.01.2015			
2	Coordination of work with partners and preparation for research	1	01.02.2015			
3	Pursuance of research in Almaty city and data processing	2	01.03.2015			

4	Pursuance of research in Astana city and data processing	2	01.05.2015	
5	Preparation and writing of two master's thesis	18	01.05.2015	
6	Preparation and writing of one doctor's thesis	32	01.05.2015	
7	Preparation of material for writing of articles	13	01.07.2015	
8	Pursuance of research in Aktobe city and data processing	2	01.07.2015	
9	Pursuance of research in Pavlodar city and data processing	2	01.09.2015	
10	Pursuance of research in Taldykorgan city and data processing	2	01.11.2015	
11	Pursuance of research in Taraz city and data processing	2	01.01.2016	
12	Pursuance of research in Uralsk city and data processing	2	01.03.2016	
13	Preparation of the preliminary report on all regions	2	01.05.2016	
14	Foreign scientific training in the USA	2	01.05.2016	
15	Writing of articles and their publication	19	01.05.2016	
16	Development of course-seminars on quality of services	15	01.07.2016	
17	Participation in conferences	within the year	01.03.2016	
18	Video film production based on the project results and demonstration in 7 regions of the Republic of Kazakhstan	12	10.01.2017	
19	Production of video tutorials: 10 items from 10 service industries for participants of SME	12	10.01.2017	
20	Preparation of the report and project completion	2,5	15.10.2017	

6 Research environments

For project execution it is necessary to have sophisticated equipment or laboratories. This project requires more advanced laptops and software for data processing.

- Using local and foreign research infrastructure (laboratories), with explanations; for project execution it is not planned to use local and foreign infrastructures.
- Key local and international relations, participation in the project of scholars abroad; Participation in conferences based on the subject of research will make it possible for participants of the project to establish partnerships with scholars from Kazakhstan and other countries. That will further help them to participate in other projects, including foreign.
- Participation in the project of young scientists, postdoctoral students. The number of project participants includes one postdoctoral student and two master's students.
- Mobility substantiation - For the Project implementation there provided conduction of researches in seven regions of Kazakhstan using resources of business partners (seven RCE), with which contracts are concluded, i.e. mobility is guaranteed.

During the process of project implementation it is planned to perform two business trips to each of seven regions of Kazakhstan for conduction of interviews and focus groups. The first business trips will help to collect primary data for analysis, others – will help to present results of the research to SME supervisors and partners – RCE. During the process of the project implementation research scientists will take part in international conferences based on the research, where they will be able to present the research results and find research partners. Postdoctoral student and master's student will have training in one of the universities of the USA, where they will obtain new knowledge and skills. The received knowledge and skills will be useful for successful implementation of this project.

The project supervisor is a director, sole founder of LLP «Kazakhstan Institute of Marketing and Management» (KIMM), founder and director of FE HABITAT and mostly deals with: management, teaching, consulting and research activity. Work schedule in this project is completely compatible with its current activity, as there are no consulting projects planned during the period of execution of the project, and teaching activity will be reduced. Work of postdoctoral student and master's students in this project will be prioritized, since it will make it possible for them to collect data for their research papers. Other project participants have chances to take part in the project, as they are employees of KIMM. During the project implementation executives will be working within the whole period of its execution being occupied for 50% and 70% of working time.

Conclusion

Expected Results:

- Results of scientific researches conducted within the project are planned to be published in journals with impact factors. Based on results of researches it is planned to write a Study guide «Management of service supply (in terms of SME of Kazakhstan)», length 40-60 p.;
- Expected scientific impact will be both in research itself and in its results. The research itself is the first large scale management research in Kazakhstan. Research results are interesting for Academe, as it is interesting for them to find out expectations of consumers of 10 service sectors of

Kazakhstan economics. Socioeconomic impact will lie in the project scale (in seven regions of Kazakhstan there will be researches conducted), and actuality of results – a big amount of companies of small and medium business from all regions of Kazakhstan will be able to use the results to improve qualities of their services, namely by means of video films and video tutorials.

- Video film concept based on project results.

One video film, running time: 30-35 minutes. Purpose: The purpose of this film – to present a wide audience an idea of the project, its aims and results. A documentary will show in which way the project was executed, will introduce audience with its participants: directors of companies who were the basis for research, research scientists, who were conducting the project, RCE, service consumers. Each of the interest groups will share its impressions and results that were obtained after work. This film will be a clear illustration of the way researches of consumers' expectations are performed in Kazakhstan, why they are important for SME development and the way the influence on improvement of the level of service and competition in the branch.

The target audience: participants of SME's service sector, undergraduates and postgraduate students with a specialization in Marketing and Management, Hotel industry. Genre: documentary video film. Form: The film will contain journalistic stories from 7 regions of Kazakhstan, where researches had taken place. There will be shown interviews of service consumers, and also opinions of owners of the companies. The supervisor and participants of the project will tell what kind of results they received, and there also will be demonstration of how these results were put into action by the company managers, and how did it influence on their business.

Concept of video tutorials (10 videos).

Running time: 10 minutes each. Purpose: Creation of video tutorials for each from 10 service industries for SME participants. These videos will show the Key success factors (KSF) from consumers' point of view that are important in each industry to reach success and prosperity, expectations of consumers, and also a real condition of companies in this industry in 7 regions of Kazakhstan and ways to solve existing problems. These videos will be used by SME participants to improve indexes of business. The target audience: participants of SME service sector. Structure: Each video will contain the following parts:

1. Introduction: Short description of the industry, statistics based on this industry in Kazakhstan.
2. Key success factors in this industry according to expectations of consumers.
3. Key success factors according to business owner's opinion.
4. Opinion and recommendation of an expert regarding KSF improvement and reduction of difference between expectation of consumers and business owners.

Form: Video will contain graphic images of showings, interviews, production moments and documentary shootings.

SME participants taking part in the research (70 people), will be able to improve quality of services based on the results of focus groups and determination of expectations of their consumers. Seven regional RCE will get instruments (video film, videos and a study guide «Service supply management»), which will make it possible for them to help supervisors of acting SME and newly established ones in the sphere of improvement of qualities of services;

RCE and SME supervisors in all regions of Kazakhstan;

Conduction of applied researches of such scale will be breakthrough for Kazakhstan, since there were no such researches before. Research results will help to develop applied management researches, that will stimulate young scholars to conduct similar researches based on other management aspects;

According to results of the research there will be organized 7 seminars, one seminar on service qualities in each region. All materials will be transferred to RCE for distribution among SME supervisors and seminar conduction. Results of the research will be published in journals with impact factor, project participants will appear at scientific conferences, and due to these actions results will be available to the community of scholars. To spread the results there will be organized meetings with SME supervisors in 7 regions of Kazakhstan, where researches had taken place, also there will be shown a video film and videos, there will be invited local mass media and TV. Due to these events general public in the regions of Kazakhstan will be informed about results of the research.

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Mechanism of organizations adaptive behavior to external medium

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Abstract

In recent years became actual new approaches to management, such as "Studying organizations" and "Intellectual organizations". In these directions, in the literature specified what characteristics the self-training or intellectual organizations have to possess, but at that, there is no integral theory rest on which might have create alike organizations. There is presented mechanism of adaptive behavior of organization to external medium in the article including two feedback circuits. Many present-day organizations adapts to external medium due to feedback circuits. Midpoint in mechanism of adaptive behavior of organizations to external medium is the second (negative) feedback. There is approved how it is possible to frame negative feedback in the organization. Organizations behavior in large measure depend upon managers activity, that is why, as the main object of external medium exposure were selected managers. To create mechanism of the second feedback, in organization should be identified highlights of each manager activity. Hereafter, it is necessary to present highlights in terms of two limited marks. According to mechanism of the second feedback, the task of managers will consist not only in achievement of objectives of organization but therein to highlights won't grow out of limited marks. If highlights are beyond the scope then act the system "Programmed decisions", so manager pass into acting status and status preserves till manager has not return highlights in limit marks frames. Manager may undertake any administrative actions to return highlights in limit marks frames, proceed by trial and error. There are presented recommendations of choice and fixation of highlights in the article. Also, there are presented, how many shall be such indicators how to establish limiting marks for highlights, how is involve rotation of managers etc. Basic result of introduction of this mechanism is consist in what after the each cycle of deviation and return of highlights, there is developed second type of behavior by way of acquisition in organization. The more environmental factors have an effect on highlights, the more often go deviation and return cycles of highlights and the organization getting better.

Keywords: adaptive behavior, external medium, communication channel, first feedback, second feedback, negative feedback, managers activity, organization highlights, black box, acquisition, programmed decisions, personnel rotation

1 Introduction

Let's take a look at management theories from a position of what significance is attached to factors in environment, and at the expense of what mechanisms of the organization adapt for environment. The organization isn't in vacuum, there is an environment where any organization carries out the activity. Each organization has border, this border at the different organizations can differ from each other, but everything that is out of organization border refer to environment. It is possible pertain to environment of the organizations consumers, suppliers, competitors, partners, and also social, economic, technology, political and other factors. The purposes, employees, structure, systems, technologies, corporate culture and other elements belong to the internal environment of the organization. It is separately possible to allocate team of managers which belongs to the internal environment, but it is responsible for interaction with environment, after all it make these or those administrative decisions. During the whole period of existence of the organizations, the role and environment influence in activity of the organization was different, but every year the role and influence of environment increases. In the light of these tendencies, it is actually to consider the mechanism of adaptive behavior of the organizations to environment. Management as separate scientific area began with scientific approach. Scientific approach allowed the organizations to become much more effective, than earlier, for example, from the point of view of labor productivity increase. According to Eytken, F.U. Taylor "the first synthesized and systematized the best from that was known of management of people, and offered methods thanks to which this art could gain the further development" [1]. During the period from 1905 to 1970 management was enriched with various approaches and tools, since Taylor, Weber and Fayol's classical era, an era of "a human factor" E. Meyo and era of "managements on the purposes" P. Drukera which significantly improved practice of management [2-7]. However, in the 70th years after oil crisis, a condition demanding more adaptive behavior from the organizations promptly changed. From the organizations now under the law of a necessary variety it was required not only efficiency, but also productivity. So, according to Moshe F. Rubenstein and Iris R. Firstenberga to develop the abilities, management of the organizations masters various systems and approaches. Here that they write: "... They mastered system of total quality management (TQM), system of continuous measured improvement (CMI), underwent a daunsayzing, franchizing, determined the optimum sizes, carried out reengineering, developed campaigns for reduction of expenses, formed the integrated teams of design of production, integrated service teams, carried out diversification of workplaces, carried out changes in corporate culture, preached "think globally and act locally", adapted view of global business and learned to see global prospects. They delegated powers, inspired,

motivated, trained, and participated in partnership and management. The companies were transformed to the learning organizations introduced new products and new services – along with it the organizations operated at registration of merges, implementation of absorption, consolidation of one parts of the company and transformation in affiliated the organizations of others..." [8]. However all these actions do not allow to solve a problem of modern management fully. What is the problem of modern management as scientific area? That existing theories of management didn't present the mechanism by means of which the organizations, like live organisms, could adapt for environment. Why to the organizations, like live organisms to adapt for environment? Because of environment factors bear every year threat for a survival of the organizations more and more. The organizations had problems always, but about 30 or 50 years ago sources of problems were more in the company, and now and, probably, sources of problems of the organizations will be in the future outside the boundaries of the organizations. For example, requirements and values of consumers change quicker, than earlier, the competition amplifies not national level and at the global level, periodically arising crises in increasing frequency put pressure upon the organizations. The team of managers of the organizations doesn't manage to react in time to threats from environment. On the one hand, it is connected with insufficient competence of team of managers, with another - in insufficient interaction of the organizations with environment. How to estimate and increase competence of managers of different levels of the organization are outside this article, about it enough articles and monographs in management are written. And how to improve interaction of the organizations with environment we will consider in more detail.

2 Theoretical part

We will consider the mechanism of adaptive behavior of the organizations to environment. In recent years there are a lot of publications about the self-training (being trained) organizations. To become self-training, the organization must have an exit in environment and two chains (loops) of feedback from environment [9, 10]. In the cybernetics, the second feedback with environment is call "negative feedback". If to compare the modern organization to a live organism, it is possible to see that the organizations are still very far to live organisms in the field of adaptation to environment [11]. How to apply the mechanisms of adaptation peculiar to live organisms, to the modern organizations? Answer this question not easy, but already there are prerequisites which allow understand in what direction it is necessary to move. G. Morgan writes that the principles of modern cybernetics – a basis for creation of the being trained organizations [11].

Morgan so represents an image of the being trained organizations: "… ability of system to self-regulate depends on processes of the exchange of information including negative feedback …". According to Morgan, the concept "negative feedback" is central in cybernetics: "… negative feedback eliminates an error: it creates a desirable condition of system by means of avoidance of undesirable states…". Live organisms are more adaptive as they use negative feedback at interaction with environment. Morgan writes "… When body temperature increases, the brain and the central nervous system initiate the actions conducting to delay of movement, sweating and heavy breath to begin changes in an opposite direction. In the same way, when it is cold to us, we start shivering, knocking a foot about a foot and try to increase body temperature keeping its functioning within the critical borders necessary for a survival …". That Morgan writes on the example of adaptation of the person to environment is a result of operation of the mechanism which is cornerstone of live organisms but this mechanism isn't present in the organizations constructed by people. We will consider the mechanism of adaptation of the live organisms, described by Morgan more detail to try to understand how this mechanism is possible to apply to the organizations. How to understand desirable and undesirable states in relation to the organizations? The term "state" means set of numerical values which variables of an organism have at present" [12]. In relation to the organizations "state" is a set of indicators, for example, the balance sheet at present which reflects a financial condition of the organization in numerical expression. On the expiration of some time, for example, month, the balance sheet will have other numerical indicators, it means that the organization passed into other state. The organization can have set of indicators not only in the financial sphere but also in others, for example, indicators on marketing, operations or on innovations and personnel training. We will consider phrase" When body temperature increases, the brain and the central nervous system initiate the actions conducting to delay of movement …" in more detail. That the organism normally existed, a number of key indicators, for example temperature, must to be in a certain state wished for an organism though some deviations, but no more critical borders are possible. "Body temperature supports blood circulation. Warmth of vessels is a necessary condition that blood arrived to our heart. It is considered that the optimum environment for this purpose is created in limits 36,6ºC, with possible deviations on some tenth degree from 36,2ºC to 37ºC. Such temperature well affects work of all internal – a liver, kidneys, and others. In the same borders glands of endocrine system and other systems of an organism normally work. Limits in which body temperature can change are in an interval 26-40zs. If temperature is less than lower bound, it is considered a life stop and if above – dangerous inflammatory process during which breakdowns organism cells, happen irreversible changes in protein structure cages etc."[13]. It turns out, the founder of the human revealed key indicators, such as temperature, pain, etc. established a desirable state and accurate limits for them for which it is impossible to deviate, and differently there will be a life stop. If the condition of the person under the influence of environment, for example, as a result of ambient temperature fall, deviated desirable temperature (36,6ºC), the nervous system automatically reacts to it forcing the person to carry out various actions, to drink tea with a lemon, or to take medicine for cold, etc., the main thing, it is necessary to return a key indicator to a desirable state. In other words, body temperature must to be at level 36,6zs. Thus, the person can act somehow, for example, a trial and error method at first to self-medicate if doesn't help, to go to the doctor, etc. The person starts showing activity,

the main thing for him becomes to return temperature to a desirable state, and other purposes and tasks leave on the second plan. The nervous system of the person stirs up activity of the person, even before real temperature increase out of limits 36,6ºC as Morgan "noted... when to us it is cold, we start shivering, knocking a foot about a foot and to try to increase body temperature, keeping its functioning within the critical borders necessary for a survival …". But if these actions of the person don't reach result, temperature of the person deviated norm 36,6ºC, nervous system of the person initiate other actions. If people without having attached special significance to temperature deviation to 38 ºC, will go for work, after a while temperature can deviate to 39,9 ºC, then already to the person will precisely have no time works and his behavior will change, he leaves work and will start being engaged in the illness. This manifestation of negative feedback which allows change behavior of the person, irrespective of his age, education, a nationality or a place of work is the key for the person. Changing the behavior and acting with cut and try method the humas survives. For nervous system of the person is unimportant because of what there was a deviation of a key indicator, environment is a black box, it is more important to return temperature to a desirable state as soon as possible. It should be noted that the person has certain time that he could return temperature to a desirable state but all this time a key indicator will remind of itself, without allowing the person to be engaged in other tasks seriously. If to present such situation that the person's temperature raised to 39,9 ºC and he (she) doesn't notice it and continues to go about the own business, without paying any attention to high temperature what will occur? It isn't necessary to be the doctor to predict an outcome of this behavior. It should be noted that in the above example, the behavior of the person changed twice and these two behavior differed from each other. When it is cold, but temperature of the person in a desirable state 36,6 ºC, the nervous system initiates activity of the person, for example, the person starts knocking a foot or to jump to be warmed. The person wants to protect with the actions himself from threat, the cold, these actions often acts as threat yield result, and temperature doesn't deviate a desirable state. But when actions of the person didn't help to avoid threat from environment, the cold achieved the objective and temperature deviated to a desirable state, the nervous system of the person initiates other type of behavior, differs the first. The person doesn't jump any more or stamps a foot, he (she) undertakes others actions, for example, takes medicine.

And now we will return to the organizations, is there a negative feedback with environment at the organization? As shows the literature analysis in the field of management, the theory of management didn't develop the mechanism of negative feedback but only designated that this mechanism is necessary to the modern organizations. About it as it is stated above, Morgan writes, about it other researchers also write. Ardzhiris and Sean have offered two basic models of the organizations [14]. The first is constructed on an assumption that we seek to manipulate the world and to change it according to our personal aspirations and desires. Heads acting on this model are occupied with achievement of the personal purposes. Protection is the main type of reaction in the organization constructed on the first model, and, as we know, the best way of protection is an attack. The heads acting on such scheme are ready to change others, but resist to any attempt to change their own thinking and style of work. For organizations of this sort is characteristic that Ardzhiris and Sean called "single loop of learning" ("identification and correction of organizational mistakes allows organization to realize the current policy and to solve already set goals" [14]). The second model, unlike the first is based on "a double loop", according to Ardzhiris and Sean allowing "reveal and correct organizational errors modifying the situation which has generated them". In the organizations operating on the second model, heads pay special attention to information. They discuss problems, react to changes, study at other. There is an effective cycle of training and understanding. "The majority of the organizations quite successfully copes with a methodic of a single loop but undergo the greatest hardship in training by the methodic of a double loop", – Ardzhiris and Sean [14] draw a conclusion. Morgan, Ardzhiris and Sean speak about the same, but from different positions. Morgan considers negative feedback from a cybernetics position, comparing behavior of the organization as systems to live organisms. Ardzhiris and Sean relying on practice, analyze as heads of the companies conduct in reality. Difference in Morgan's approach, that relying on metaphoric thinking, it represents other view of management. By means of different metaphors it shows key aspects in activity of the organizations to which often don't pay due consideration. According to Ardzhiris and Sean [14], the organizations adapt for environment by a methodic of a single loop (the first feedback), but can't apply fully a methodic of a double loop (the second, negative feedback). What the methodic of a single loop means? [14]] It is a question of heads of the companies if to take more widely, about managers who make decisions and the behavior of the organizations in many respects depends on these decisions. Existing theories of management allow expand the range of application of a methodic of a single loop but don't allow to embroider a methodic of a double loop.

3 Investigation

We will further consider how to create negative feedback (a double loop) for the organizations. What is understood as organization interaction with environment? The team of managers can differently treats environment factors which can bear threat for an organization survival: from full ignoring before total scanning of changes in environment. The theory of management provides a number of tools by means of which the team of managers can systematically investigate external factors and react to them in time. The majority of the modern organizations studies external factors and try to adapt for them. The problem in that the influences of external factors often happen not in one stage and gradually. For example, because of action of competitors at the company production sales can gradually fall within several years, and the team of managers continues to work as before, anything significantly without changing in the actions, without increasing the activity, believing that it is temporary difficulties that everything will improve. It turns out that the team of managers has signals from environment, actions of competitors reduce company

sales, but the team of managers doesn't show activity to counteract threat from environment. Probably, sooner or later the team of managers will think again and will start showing activity somehow to answer actions of competitors, but time can be missed that can lead to company crash. The problem more not that the team of managers of the organization doesn't receive signals from environment which can bear organization threat turns out. And in why managers don't react in time to these threats by activity manifestation until liquidate consequences of influence of external factors on organization activity. Whether it is possible to make so, that team of managers without wasting time, as soon as possible started showing activity to stop falling of sales of the production at an early stage and, moreover, to try to increase sales? We will consider in more detail as the mechanism of negative feedback in live organisms works. As this mechanism in live organisms works, described in the monograph known English cybernetician R. Eshbi [15]. Eshbi has opened logical structure which is a basis for any difficult interactions both within an organism, and between an organism and environment. According to Eshbi's opinion, activity of nervous system of organisms can be divided into two types. The first type is reflex behavior. It is congenital in all details, defined by heredity, i.e. a genotype. This behavior is adaptive because the conditions demanding their emergence were constant throughout many generations. The second type is the behavior acquired by learning. It is not congenital and not represented in details a genotype. As a whole, adaptation can be reached as a result or direct (the first type), or indirect (the second type) genotype action. But when environment conditions for which the organism adapts are constant throughout too short time in order that there could be a genotype adaptation, learning represents the only method of achievement of adaptation. Besides, at direct and indirect action of a genotype the different volume of regulation can be reached. As the communication channel, a genotype has a certain final capacity, for example, equal Q. In relation to the organization the first type of behavior in details is defined by the founder of the organization (it founders or shareholders). In the course of the activity the first type of behavior can undergo changes and these changes make both founders and managers of the organization. Depending on that who is the founder of the organization, the first type of behavior at the different organizations can significantly differ. We will consider as an example, behavior of two business firms which are approximately identical by the size, have approximately identical resources and carry out the activity in one branch. The only difference is that the one company is created in the USA and another in Kazakhstan. It is interesting to us, what will the difference of the first type of behaviour in two companies.

The company created in the USA where more than 200 years there is a market economy. This economy is characterized by the high competitive environment from the very beginning of the existence managers of this company will seek to make and support qualitative production and continuously to improve its quality in comparison with competitors. Managers of the company will seek to reduce expenses, to carry out innovative activity and to let out new products. Besides, to get profit sufficient for development of the company and payments of dividends, have competent team of managers and the qualified employees. Also, to provide continuous training for the employees, have clear vision, mission and development strategy. This list is possible to be continued but a question, that the majority of the companies, created in the USA, have approximately such type of behavior.

Now, we will consider the hypothetical company created in Kazakhstan where the market economy exists only 20 years. This economy is characterized by the low competitive environment, managers of the company from the moment of the existence will seek to make production of acceptable quality. Managers, most likely, won't be purposefully reduce costs of production and carry out innovative activity. Besides, managers will seek to get the maximum profit, engage the qualified employees. Employees will be incidentally trained. Clear vision, mission and development strategy in an explicit form won't be presented. This list is possible to be continued, but it is possible to note that the majority of the companies in Kazakhstan approximately so behave, show such type of behavior.

Apparently, the type of behavior of the company created in the USA differs from the Kazakhstan Company. It is possible to tell with confidence that as a communication channel the first type of behavior of the American company has the big capacity expressed in Q, than the Kazakhstan Company. Why founders of the companies in Kazakhstan can't create behavior type as in the American, German or Japanese companies? Because conditions for emergence of the behavior first type in the USA, Germany and Japan were longer, besides, the market environment in these countries significantly differs from the market environment in Kazakhstan. To catch up the companies from the USA, Germany and Japan, it is necessary to expand significantly the capacity of the first type of behavior as communication channel and more than ten years can be demanded. But if the Kazakhstan companies are able to introduce the second type of behavior acquired by learning, this gap can be overcome much quicker.

Management as the new area of science tries to arm the organizations with new instruments of management which increase the capacity of Q first type's behavior (Fig. 1). The organizations, both American, and Kazakhstan, have a choice: to be content only with that the modern science gives to practice management (capacity the Q, first type of behavior) which probably came nearer to the limit or to master the second type behavior based on learning.

The second type of behavior – learning, as conditions of the environment are constant throughout too short time is necessary to the organizations in order that there could be an adaptation due to administrative actions of managers. Learning represents the only method of achievement of adaptation which will allow prolong life cycle of the organization significantly. Besides, if to unite practice of modern management and the behavior based on learning, the regulation volume of much exceeding Q can be reached. Because the regulation volume within which managers of the organizations can make various actions, leaning on signals from environment to change behavior of the organization for the law of a necessary variety, it is insufficient for adaptation to environment. In other words, to resist to factors of environment, the organizations have to

show much more variety in behavior, than they do now that demanded by the law of a necessary variety. However these measures are found insufficiently as ahead of the organizations even more grandiose changes wait ", and these changes approach with even high speed, than ever before" [8]. According to Rubenstein's and Firstenberg's opinion, the organizations "have to find for themselves new images and metaphors which will help the organization to be simply transformed to the intellectual organization [8]. Such intellectual organization behaves as a live organism, for which most important is the adaptation for the sake of a survival and full-fledged life".

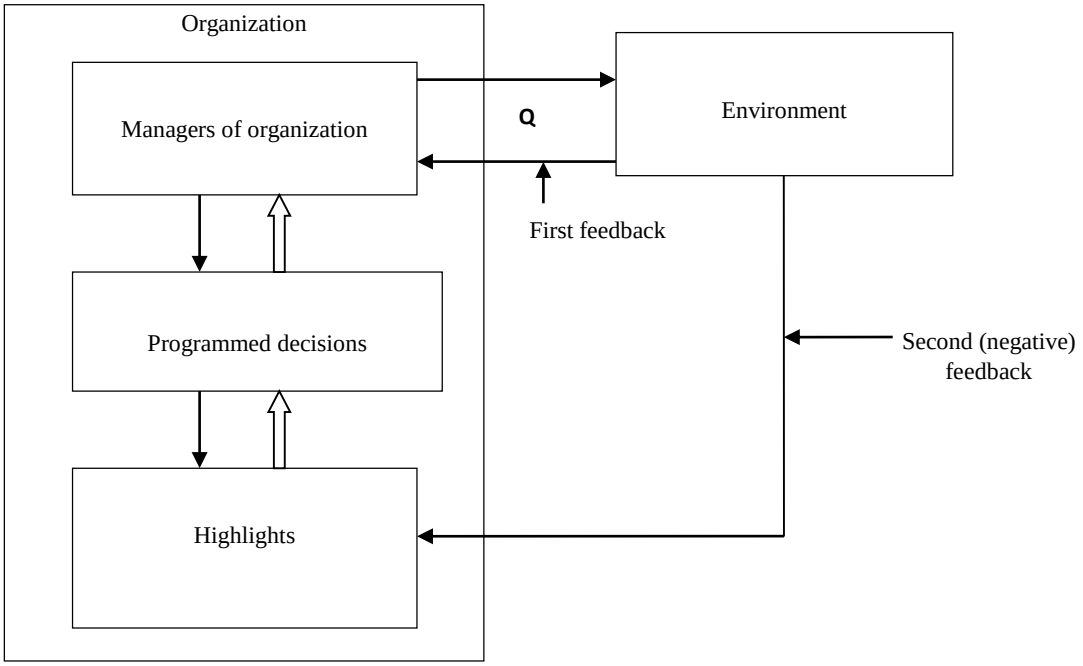

FIGURE 1 Scheme of the organization capable to adaptive behavior

We will consider behavior of the second type, i.e. that is not congenitally, and is acquired by learning, in more detail, as we interseting in learning process.

In Figure 1 organization and environment are presented as interacting systems. The organization is presented in the form of two interacting systems: "Managers of the organization" and "Key indicators", and between them "The programmed decisions". The shooters going to the organization and from the organization, correspond to the influences going from environment and the first feedback is a communication channel which defines the first type of behavior. Key indicators of the organization are indicators of the organization which lead to change of a condition of the organization. It is possible to carry a profit level, a stock price to key indicators of the organization in stock market, growth rates or falling of sales, etc. However, key indicators of the modern organizations, unlike live organisms aren't presented in the form of the dial with two limit marks, but only one mark in the form of target indicators. Thus, essential variables at organisms have physiological borders and at the organizations key indicators are defined at best in the form of digital indicators, i.e. in the form of one mark, but not in the form of two limit marks. It turns out that for development of the second type of behavior, the organizations need to present key indicators in the form of two limit marks. For example, profitability of the company in the next years should be ranging from 20% to 30%. In this case there is the bottom limit not less than 20% and top a limit – to 30%. But it isn't enough of it, it is necessary to connect deviations of key indicators from limit marks with managers of the organization. For this purpose it is necessary to connect with key indicators in the form of the programmed decisions. The concept "the programmed decisions" is introduced in management by the Nobel winner Herbert Simon for the first time. G. Simon used the term programmed for the description of decisions in a high measure of the structured. The programmed decision is result of realization of a certain sequence of steps or the actions similar to that are undertaken at the solution of the mathematical equation [16]. As a rule, the programmed decisions are realized in an automatic mode.

In relation to our case, the Board of directors defined for the director of the company key indicators in the form of two limit marks. The director, relying on the competence and environment factors, so carries out process company management that on the one hand the company sought to achieve the company objectives, with another - key indicators didn't leave the limit marks. If though one key indicator went beyond marks, the decision is accepted automatically, the director passes, for example, into the status of the acting as (deputy) directors. The board of directors establishes a period during which the acting director has to return a key indicator to a desirable state. If in established periods, the acting director couldn't achieve a desirable state, he (she) leave a post of the director and if it was succeeded to return, in an automatic mode again passes into the status of the director, without prefix of the deputy. In turn, the director of the company defines key indicators in the form of two limit marks for the managers.

Work of managers in the organization can be divided

into two groups. The first group of tasks – on the channel of the first feedback managers have to react in due time to factors of environment and carry out changes in the organization, thereby to correct behavior of the organization. The modern organizations (as commercial so and not commercial) have only the one first feedback with environment. The first feedback helps the organizations to adapt for environment. The second feedback passes through key indicators of the organization. The second group of tasks – managers of the organization have to provide that key indicators of the organization were in limits set marks. And if they left these limits under the influence of environment, to return them to the set limits due to various administrative actions. Process of adaptation of the organizations to changes in environment happens as follows. Managers, relying on the competence and being guided by information from environment, on the one hand try to reach goals, with another – try to return key indicators of the organization to appropriate borders influencing environment by various administrative actions (cut and try method). Thus, if key indicators of the organization are removed for the established borders, managers by various administrative actions try to return key indicators of the organization to the established borders. Thereby, key indicators of the organization influence behavior of managers, i.e. what behavior will be developed at the organization. And, if test didn't achieve the objectives (key indicators are removed out of these limits), the behavior has to be changed when the objectives are achieved (key indicators of the organization are in the limits), the form of behavior has to be fixed. In other words, managers have to act with a cut and try method. Thus, the organizations capable to adaptation must have an exit in environment and two chains of feedback. The first feedback (Figure 1) is based on competence of managers, their strategic vision, ability to find new opportunities in environment for development etc., giving the organization information on changes in environment. The second feedback (Figure 2) passes through key indicators of the organization, for example, through such, as a profit level, degree of satisfaction of consumers, quantity of innovations, etc. It bears information only about, whether there are key indicators of the organization normal limits and in case of an exit influences behavior of managers.

We will present the definition of management concept - "management is team of managers and specially created governing body which helps managers with achievement of the objectives of the organizations in the current management and in interaction improvement with environment". This definition doesn't apply as the only or best option, but this definition shows importance of a role of managers and interaction process with environment and that without creation of special body for the aid to managers is difficult to operate the modern organizations.

4 Results

We will present, for an example, the company which is carrying out the activity in tourist branch presented on Figure 2 where is introduced the mechanism of second feedback. Shareholders are elect Board of directors, in their turn, Board of directors establishes key indicators and approves their maximum deviations for the general director. As a key indicator, for example, we will take rate of return which should be ranging from 10 to 15 million dollars a year. Apparently from Figure 2, limit indicators have two scales, the first scale has narrower range, this desirable condition of a key indicator, for example, as temperatures for the person from 36,2ºC to 37ºC. The second scale has wider limits, these are admissible limits of a key indicator as temperature of the person can fluctuate from 26ºC to 40ºC, and this indicator can fluctuate, for example, ranging from 5 to 15 million dollars. Task of the Director general is to seek to achieve the objectives of the company and whenever possible not allow that the key indicator left a desirable state but if it after all, under the influence of external factors left out of these limits, (her) his task is to return this indicator to a desirable state. As soon as the key indicator left a desirable state, for example, the profit was got of 8 million dollars, this information in an automatic mode arrives in Board of directors which after discussions with the general director makes the decision on that, what time is need to provide to the general director that he (she) managed to return a key indicator to a desirable state. It is possible to accept such rule that during this period the general director passes into the status of the acting as (acting) general director in an automatic mode, without decision of Board of directors. This rule is important that information on fall of the status of the general director can affect behavior of all staff of the company, including managers of the company. This information depending on style and personal qualities of the general director will rally the staff of the company or will cause split in the company. In turn, status change the deputy will strongly affect and behavior of the general director. The general director can show leadership skills and rally the staff of the company or on the contrary, not the capable will be adequately react to the new status. If in time determined by Board of directors the general director isn't able to return a key indicator to the set limits, it (she) leaves from a post of the general director, but it doesn't mean that he has to leave the company. The general director can pass to other position or be a part of directors. Here, it is important to understand that nobody calls into question competence of the General director, it is a question that his administrative actions on return of a key indicator to a desirable state didn't lead to the necessary results. Probably, other style of leadership and other administrative decisions which the new general director will be able to show is for this purpose necessary. For the new general director the key indicators and their borders are established.

In turn, the general director establishes key indicators for the five subordinates: technical director, 1st deputy, marketing director, director of development of a network and chief accountant. And they for their direct subordinates are chiefs of departments. Apparently from Figure 2 key indicators are established only for managers (who has subordinates). Let's say at the director of development of a network of offices the key indicator left a desirable state, it (it) automatically passes into the status of the acting director. The general director defines the period of time during which the acting director of development of a network of offices will be able to return a key indicator to a desirable state. Here it is possible to observe such figure. To return key indicators to a desirable condition of the acting director of

development of a network of offices will seek to interact with other directors. Whether will be this interaction fruitful? Most likely, it is will, as activity of directors depends on activity of colleagues. If the acting director of development of a network of offices isn't able to return to established periods a key indicator in a desirable state, this result can be reflected in key indicators of other directors.

Thus, at least, after several cases when key indicators leave a desirable state, managers realize importance of interaction and will seek to work as team.

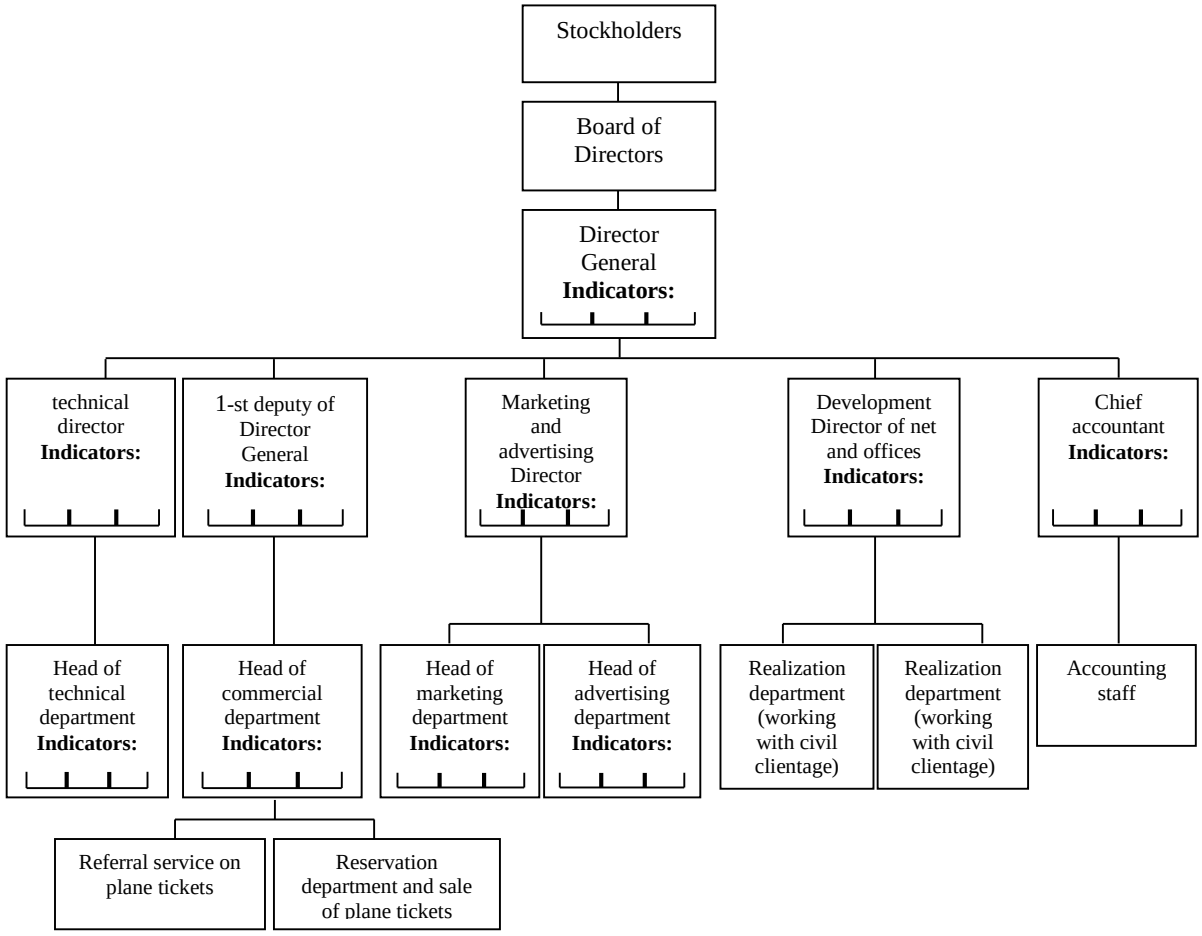

FIGURE 2 Structure tourist company

How many key indicators for each manager should be? It is difficult to give a definite answer on this question. But if to be guided by the concept of the balanced system of indicators (BSI) offered by R. S. Kaplan and D. P. Norton, it is possible to recommend no more than 5 key indicators for each position of the manager [17]. Fundamental difference of key indicators by an offered methodic from the methodic of the BSI offered by R. S. Kaplan and D. P. Norton is that in the BSI methodic indicators are defined proceeding from strategic objectives of the company, and key indicators are determined by this methodic from the real and last experience of the company. Let's say, all managers presented in Figure 2 have five key indicators then it will turn out that there are 50 key indicators in this company which have an exit in environment, and through them managers accept signals and react to these signals. The system of the programmed decisions allows pass to these signals across organization and to influence behavior of managers of different levels of the organization, stimulating them to active actions. Managers are compelled to react to these signals as on their actions depends whether they will remain at the positions or not. As it was earlier specified, those managers who after unsuccessful attempt could not return key indicators to desirable states don't leave the organization, moreover, after a small break, for example from 6 months to one year, can return to the same position. According to a proverb "Experience is worth it", the manager who has come back to the position who was compelled to leave 6 months or a year ago will have higher motivation and competence than at the first occupation of this position. In fact, it will be natural rotation of managers both horizontal, and the vertical line.

The main result of introduction of this mechanism will be that after each deviation from desirable level and return to a desirable state, the organization becomes stronger. Managers pay attention of information more, to a thicket discuss among themselves and employees of a problem, react to changes better and the main thing, study at each other and on the experience. "There is an effective cycle of training and understanding" according to Ardzhiris and Sean [14].

The most difficult part of this mechanism consists in a

choice of key indicators and in establishment of limit marks. The choice of key indicators depends on a kind of activity and this mechanism is applicable as to business firms so and the noncommercial companies. For example, as key indicators for local municipality there can be an assessment of activity of the head of municipality inhabitants of this district. As a starting point, by the analysis and research, it is possible to establish limit marks following the results of estimates for last years and if they aren't present, to conduct selective survey and to establish limit marks, relying on results of poll. Also, as key indicators it is possible to use a rating of heads of municipalities among themselves one territorial district. That head who will receive the lowest rating among other five or six municipalities, that and will have to pass into the status of the acting head of municipality. After a year by results of the following rating, try to leave a zone with the lowest rating. For business firms it is easier to reveal such key indicators but for definition of their limit marks it will be necessary to conduct researches to be convinced of their objectivity and relevance. Here, it is required to apply instruments of scientific approach. In fact, to some extent, we come back to management sources, to the theory of scientific approach of F. Taylor, but not at the level of working professions, and at the level of managers. Difference in that F. Taylor determined performance standards by a scientific way for workers and in this case needs to be defined key indicators and their admissible limits for managers.

Now we will try to compare the offered model of the second feedback to examples from practice. Relating to director generals of large joint stock companies, problems arise when them employ for the solution of one task, but passes not enough time, for example, year, and they should solve other problems for which decision they can be not ready. According to the consultant David Nedler, for long-term success the director general needs to consider the work as representation in several actions. "In each action he has to direct, think and behave absolutely differently. Those who is capable to switch over [18] achieve success" By way of illustration Nedler gives Carly Fiorina's example, who worked five and half years as the director general of Hewlett-Packard. Fiorina's problems began when ended the first action and there was a new task – implementation of the program. Here was necessary the director general - "hard worker", instead of the person, liking to be in the high light. "Sadly, she continued keep this up and the leadership model which brought success in the first action killed her in the second". To find the general director – Jack of all trades it is unreal sometimes and in such cases Nedler recommends to think of the general director "for one action of the play", employed on the basis of the contract with possibility of extension. Apparently from a concrete example, it is difficult to find the top managers capable quickly to switch over for the solution of other task. By means of the adaptive behavior mechanism offered above, it is possible to avoid similar problems as change of top managers happens not only according to the decision of Board of directors, but also under the influence of external factors in an automatic mode. In these conditions the general director "for one action of the play" can be norm. At appointment of managers in the organization where the mechanism of the second feedback is introduced, the conditions connected with key indicators and programmed decisions should be in advance contractual.

Conclusions

Scientific development from the theory of management allows expand regulation volume with environment which is carried out by managers through the first communication channel. But much as extends the first communication channel, in particular due to scientific development in the management theory, it eventually moves to the limit. The organizations having only one communication channel with environment realizing in practice the first type of behavior, can count only on this limit.

The second type of adaptive behavior is not congenital, but acquired by the organization, by a learning way, i.e. at the time of creation of the organization of this communication channel with environment doesn't exist. Adaptation of the organizations to environment can happen at the expense of the first and second type of behavior. Those organizations which will be able to adapt for environment at the expense of two types of behavior, will be able to have essential competitive advantage in comparison with those organizations which adapts only at the expense of the first type of behavior. This advantage will be expressed in speed and as adaptation to changes in environment. According to the author of article, all existing organizations adapt at the expense of the first type of behavior.

In large joint stock companies more often there are problems when the director general of the company elected by board of directors doesn't cope with new tasks and it needs to be replaced, and fast change of general directors isn't norm. The offered mechanism of rotation of top managers provides cases when the general director having carried out an objective leaves a post without serious consequences, and another comes to his place. Moreover, this mechanism allows the former general director to return on the post.

Afterword

The organizations capable to adaptation should have an exit in environment and two chains of feedback. The first feedback gives the ability to receive information on changes in environment amount of information which is received by the organizations from environment depends on competence of managers, their activity, strategic vision, ability to find new opportunities in environment for organization development. The first feedback as the communication channel with environment is extremely important for the organizations as via this channel of the organization receive all information from environment. Problem in that the regulation volume which managers of the company can carry out through the first feedback as the information channel has the limit more than this limit the volume of regulation is impossible. The organizations created in the developed countries, differ from the organizations created in the countries with undeveloped market economy, just different level of regulation which is carried out by managers of the organization. To reach level of the developed countries, managers of the organizations in the countries with undeveloped market economy may expend

from 30 to 50 years. The second feedback passes through key indicators of the organization, for example, through such, as degree of satisfaction of consumers, a profit level, a market share, quantity of innovative products, etc. It bears information only about, whether the key indicators outstep the normal limits of organization and in case of an exit influences behavior of managers.

The second feedback allows to increase regulation volume with environment through a new communication channel. To introduce the mechanism with the second feedback in the organization, it is necessary to connect deviations of key indicators from limit marks with managers of the organization through system of the programmed decisions. The new communication channel passes through key indicators of the organization. According to the mechanism with the second feedback, managers of the organization have to provide that key indicators of the organization were in limits of set marks and if they left these limits under the influence of environment, return them to the set limits due to various administrative actions.

If to assume that all managers of company have on five key indicators, then it will turn out that in this company from 20 to 70 key indicators depending on the organization size. It means that these organizations have from 20 to 70 exits in environment through which managers accept signals and react to these signals. The system of the programmed decisions allows to pass to these signals through all organization and to influence managers stimulating them to active actions. Managers are compelled to act as on their activity depends, will they stay at the positions or not. Thus, the second communication channel supplements the first, thereby the total amount of regulation significantly increases.

If the organizations created in the countries with undeveloped market economy, manage to introduce the mechanism of the second feedback as additional system of management, then will be able quicker to reach level of the developed countries.

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State regulation of tariffs for services of the main rail network in Kazakhstan

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Abstract

Price regulation - an integral part of the mechanism of state regulation of the economy as a whole. The problem of state regulation of the activity of transport parties, which are legally defined as natural monopolies, is extremely urgent. As well as around the world, in our country there is the search for effective regulatory principles and processes of formation and regulation of tariffs are inextricably and intimately linked. The effectiveness of state regulation is determined by the quality of its organization and the quality of decisions.

Keywords: railway transport, services of the main rail network, tariffs, tariff estimates, the investment component, the permissible level of profit, adjustable base of operating assets

1 Introduction

Adaptation of rail transport to market conditions, while maintaining state control and ownership of the main railway infrastructure with the optimal combination of state and private enterprise is a great challenge, because nowhere in the world there is a uniform method and complete experience of railway reform.

The liberalization of the market segments of rail services has occurred in Kazakhstan after the reforms in the railway sector, initiated in the late 1990s.

In the early 2000s, based on a single railway company there was created a large number of smaller companies. The largest enterprises providing services of locomotive traction services for the provision of rolling stock, to provide services for the use of infrastructure and services for the maintenance and repair have become independent entities as part of the national rail holding company "Kazakhstan Temir Zholy" (hereinafter - KTZ).

Currently, KTZ is both a holding and an operating company. As the operating company, KTZ provides two types of services: freight services, and services to provide for the use of infrastructure. KTZ is the only cargo carrier in Kazakhstan.

Despite the liberalization of some segments of the market of railway services, KTZ and its subsidiaries are major players in their respective market segments and, as a result, are subject to state regulation.

2 General aspects of state regulation of the railroad industry in Kazakhstan

Currently, the railway sector in Kazakhstan is regulated by two state agencies:

- Committee of Transport of the Ministry for Investment and Development (hereinafter - the Committee of Transport) - is responsible for the technical regulation, including issues related to security, access to infrastructure and licensing.

- Committee on Regulation of Natural Monopolies and Protection of Competition (hereinafter - Regulator) is responsible for tariff regulation of natural monopolies and companies occupying a dominant market position.

The state is involved in the development of the railway sector and the support of the relevant enterprises by providing various types of subsidies:

- Direct subsidies from the state budget and natural grants to finance the modernization and development of infrastructure;

- Direct subsidies from the state or local budgets to passenger carriers under socially significant destinations;

- Loans from the National Fund to finance infrastructure development.

According to the Law of the Republic of Kazakhstan "On natural monopolies and regulated markets" in the field of railways the services of the main rail network (hereinafter - MRN), including the lease of the main railway network and rolling stock company badge on it. [1] are considered a natural monopoly.

In accordance with the Law of the Republic of Kazakhstan "On Competition" KTZ is included in the State Register of market subjects, having dominant (monopolistic) position on a specific product market services for the carriage of goods by rail [2].

Thus, in the market of railway services in Kazakhstan the price is subject to government regulation fee introduced by the carrier for using the services of the main railway network. The remaining components of the rail fare (services for the provision of locomotives and rolling stock, freight and commercial work) belong to the competitive sector, changes in the prices of which shall be agreed with the Regulator**.** The present structure of services in the market of freight traffic by rail and the system of price regulation of these services are presented in the figure (Figure 1).

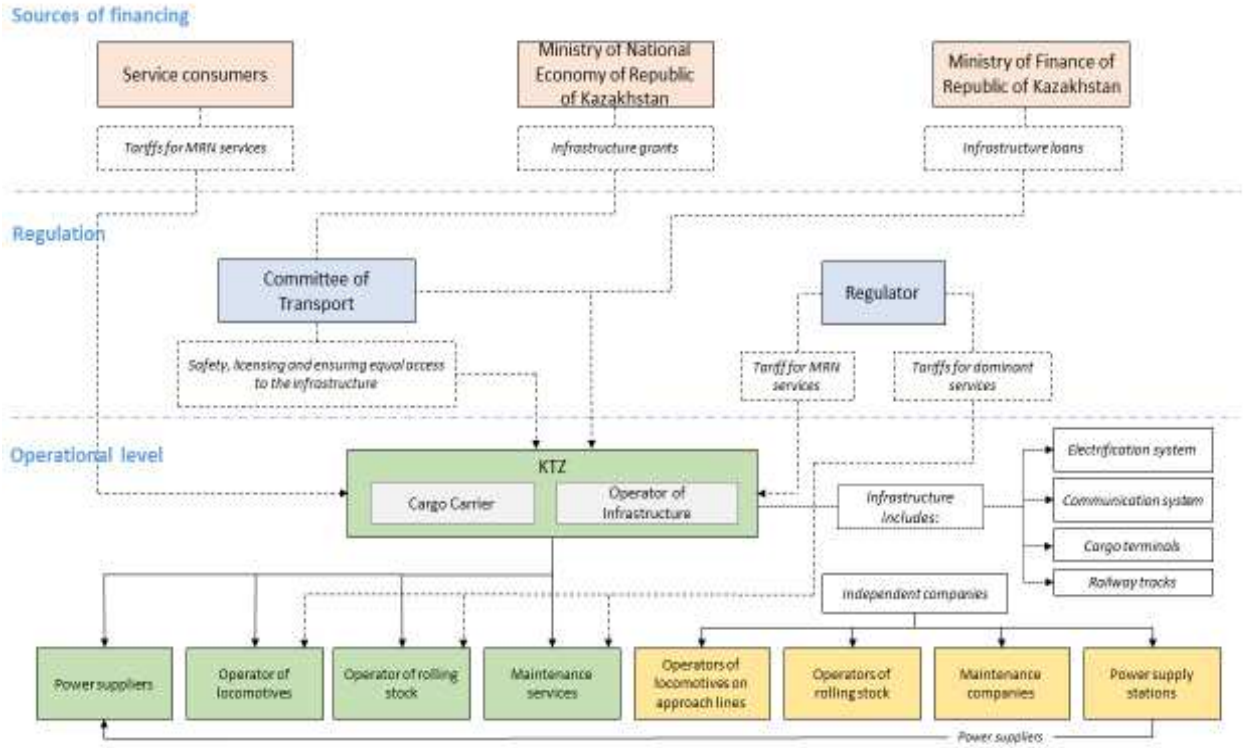

FIGURE 1 The current structure of the freight market and price regulation

The peculiarity of the state tariff regulation is to provide the regulator the ability to apply in exceptional cases, instead of or together with the main methods of regulation [6].

1) the investment rate - used in cases where it is inadmissible to raise tariffs for all consumers of services because of the need to ensure an accelerated return on investment in a single project of a new building;

2) a temporary reduction factor - set when the planned annual consumption exceeds the consumption of services provided in the current tariff estimates and / or tariff regulated entity, ie, an organization can receive from consumer service fees unreasonably increased volume due to increased consumption of consumer services;

3) temporary compensatory tariff - applied in cases where tariffs regulated entity in previous periods of regulation were unreasonably high (taken into account unrealized investments include extra costs).

State regulation of natural monopolies in the Republic of Kazakhstan is voluminous, complex and covers almost all aspects of their activities.

List of the main applied methods of tariff (price) regulation of natural monopolies is defined in the Law of the Republic of Kazakhstan "On natural monopolies and regulated markets". [1] The functions of government regulation to prevent unreasonable growth of tariffs for regulated services of natural monopolies carries the Regulator. The main functions of the Regulator under the tariff regulation and methods of implementation are presented in Table 1.

TABLE 1 Main functions of the Regulator under the tariff regulation and methods of implementation

Functions	Methods of implementation
Approval of tariffs or ceiling	Regulation of the expenses included in the fare
Approval of the tariff estimate	Limiting expenditure within the technical and technological standards of consumption of raw materials, fuel, energy, and normative technical losses Adoption of the list of expenses not taken into account in the formation of tariffs
Approval of the temporary reduction factor	Limitation of profit to be included in the fare
Adoption of a special order of formation costs	Matching used methods of depreciation of fixed assets
Approval of the procedure of separate accounting of revenues, costs and involved assets	Matching revaluation and use of funds of depreciation provided for pay scale subjects of natural monopolies
Harmonization of accounting policies	Regulation of the expenses included in the fare

Currently there are 64 regulatory acts governing the activities of natural monopolies, of which 28 belong to the field of railways.

3 Regulation of tariffs for MRN and its shortcomings

3.1 PROCEDURE FOR CALCULATING TARIFFS FOR THE SERVICE OF MRN.

The current system of regulation of tariffs for natural monopoly services of MRN was established within the framework of the transformation of the railway industry in Kazakhstan in 2004.

Until 2004, in Kazakhstan for the calculation of railway tariffs were applied uniform tariff schemes for cargo transportation in accordance with the prevailing price list. Separation between infrastructure services, locomotive traction services and services for the provision of rolling stock did not exist, because the railway company is a vertically integrated state-owned enterprise.

As a result of reforms in the railway sector tariff rates previously applied for cargo have been divided into the tariffs for the use of infrastructure, tariffs for locomotive traction, tariffs on freight and commercial work and tariffs for renting vehicles.

To date, the main railway network - a key infrastructure services among the most profitable monopolies and regulated railway transport services.

In the formation of tariffs for MRN services meter "tonne-kilometer" is used on the basis of which formed the base tariff rates for MRN services approved by the Regulator.

The tariff for the services of the infrastructure for freight transport is defined by indexing the basic tariff increase on the list price ratios for different types of cargo.

Raising rates to the basic rates for MRN services for different types of cargo (reflect economic characteristics, namely, the price of cargo and inflation) adjusted annually and approved by the regulator.

The calculation is based on the coefficients approved at the next control period, the tariff revenue for services and MRN forecast turnover.

As a result of the calculation of tariffs for MRN of the raising factors established by the regulator for different types of goods transported, the highest rate for the regulated MRN services on some high-yield sorts of goods (eg, crude oil) can be 10 times higher than the lowest rate (for example, coal stone or grains). In fact, the prevailing rate for other types of goods (about 75% of the regulated turnover) below average.

This kind of differentiation of tariffs is considered to be an additional tool for socio-economic policy of regulating the level of economic activity in various sectors of the Kazakh economy by controlling prices.

3.2 THE PROCEDURE OF FORMATION AND REGULATION OF TARIFFS FOR NATURAL MONOPOLY MRN SERVICES.

A fundamental principle of formation of tariffs for services of natural monopolies, including MRN in the Republic of Kazakhstan is a consumer-based compensation cost provider associated with the provision of regulated services, and ensuring an acceptable level of profit, ie, government regulation of the rate of profit. [1] Fees for use of infrastructure are calculated on a full indemnity basis of average costs and involves getting an acceptable level of profit (the principle of valuation profits, Rate-of-Return), when a reasonable costs associated with the provision of services, added the permissible level of profit, which allows companies to operate, provide quality services and to develop (1). Cost recovery for the provision of services is made according to the approved tariff estimate regulator KTZ.

$$Tariff = \frac{Cost+Profit}{Volume}, \quad (1)$$

where: Cost - economically justified costs associated with the provision of services; Profit - permissible level of profit; Volume - the volume of services provided. State regulation in the sphere of tariff applies to all three components, in most cases, as experience shows, leads to a significant reduction in the approved tariff compared to apply.

3.2.1 Regulation of the cost-part of MRN tariff.

Cost-part includes KTZ costs for the production and delivery of services, including material, labor, financial and other expenses. KTZ is obliged to document and justify the need to include the costs of materials purchase prices, raw material costs and rationing of labor. For example:

- The level of normative technical losses, regulatory staff, norms of consumption of raw materials, fuel, energy must be pre-approved by the regulator.
- Staffing, level of salaries of executives of administrative staff, the costs of repair and overhaul, as well as changes in the accounting policies require the prior approval of the regulator.

The Company is obliged to adhere to the approved level of costs. In the case of deviations from the approved cost rate of more than 5%, penalties are applicable. In case of exceeding the actual costs of providing services in excess of the approved level, these costs (exceeding size) are non-refundable by the tariff. In fact, the company has no incentive to optimize costs.

Expenses not directly attributable to the production process and the provision of services that are not included in the expense part (such as lease payments for productive assets) [4].

Cost-part tariff estimate is too detailed to the level of the individual components (often material). In practice, this leads to complications in the procedure of formation of the application and consideration of the tariff.

The revenue part of the tariff reflects the level of profit, which provides efficient operation and development of the company.

In practice, the level of profit (net income) is defined on the basis of the values of the assets and the rate of return on regulated base of operating assets (2).

$$Profit = Stake\ income * ABOA, \quad (2)$$

where:

$$ABOA - \text{adjustable base of operating assets}$$

3.2.2 Regulation of the revenue part of the MRN tariff.

Adjustable base of operating assets (ABOA) - is the total value of non-current assets (fixed assets and intangible

assets) used in the provision of regulated services. [5] ABOAis defined as the product of the actual value of the assets involved in the provision of services by a factor of involvement of assets (3).

$$ABOA = CA * Kza \quad (3)$$

where: CA-actual value of the assets involved in the provision of the regulated services; Kza - the coefficient of involvement of assets.

Residual values are used to determine ABOA.

Coefficient of involvement of assets is determined by a natural monopoly subject in coordination with the Regulator.

The rate of return reflects the weighted average cost of capital (services) of the company, taking into account the specific risks (4).

$$SP = ((1 - g) * Re) + (g * Rd) \quad (4)$$

where: g - the ratio of debt and equity financing in the overall structure; Re - the interest rate on equity; Rd - interest rate on borrowed funds.

The volume of services provided reflects the planned annual consumption of services based on the company's obligations on quality and customer service is not discriminatory, and opportunities of the company.

3.3 NEGATIVE EFFECTS OF THE CURRENT REGIME OF PRICE REGULATION ON ACTIVITY OF NATURAL MONOPOLY SUBJECT

As part of the current activities of the approved tariffs, do not respect the basic principles of price regulation, "the balance between the interests of suppliers and consumers of services."

Often, during the adoption of tariffs for regulated services occur minimizing and cuts costs included in the tariff estimates.

According to analysis data held by the European Bank for Reconstruction and Development the actual costs associated with the provision of infrastructure services, higher than the level approved by the flow regulator in the tariff estimates. The tariff budget approved by the Regulator in the past two years does not cover the costs inherent in the company with a deficit of 13% [3].

The deficit arising as a result of the approval of smaller costs associated with the services of MRN, KTZ had to cut various expenses. As a result, according to the administrative account, the actual costs of providing for the use of infrastructure will exceed the approved value knob to 11%. The corresponding loss of the company is forced to cover the expense of profit from the services of MRN, leading to a reduction in investment in infrastructure, or from other types of services.

This situation is contrary to the legally binding obligation on the full reimbursement of operating expenses associated with the provision of regulated services, in Vol. H. MRN including services [1].

A scarce rate estimates is the result of inefficient two rules:

1) Expenditures that are included in the tariff estimates and reimbursed by the tariff, regulated by rules and limitations set by the controller [1].

For example, bonuses and additional payments to employees, the system of bonuses and reimbursement of the cost of rental housing are not included in the tariff estimates and are not reimbursable by service users.

Interest expense on loans may be included in the tariff estimates, respectively, and shall be reimbursed for the expense of consumers, only if they are employed for the purposes of investment. The tariff estimates do not include interest on borrowed funds used for working capital and overdraft facilities.

Moreover, according to the rules, the rate used for the calculation of interest expenses, which are included in the tariff estimates is limited. For example, for loans in tenge it should not exceed the interbank interest rate (ie 5.5% as of December 2014), more than half (ie 11%), while loans in foreign currency - LIBOR (approximately 0.25% as of December 2014) is more than four times (ie 1%). These interest rates are much lower than current rates on loans or companies available.

2) The amount of expenses that may be included in the tariff estimate and is refundable by tariffs, regulated by standards costs, including standards of technical losses, technical and technological norms of consumption of raw materials, fuel and energy standards staff.

For example, the actual number of permanent employees KTZ engaged to provide services to MRN, 1.6 times higher than in the metered tariff estimates. At the same time, labor costs are key and make up 40% of the total cost. In addition, wages are approved by regulators for inclusion in the tariff estimates is limited to the average wage in the country.

However, this restriction is questionable, taking into account the level of responsibility and the qualifications required of railway workers.

As a result, the regulator approved tariff estimate does not correspond to the actual costs necessary for the provision of regulated MRN services and ensure the quality and safety of its supply.

Therefore, the current level of the tariff does not cover actual operating expenses, as it does not provide sufficient income for full funding of investments in modernization and reconstruction of the railway infrastructure.

In addition, the regulatory body has an effect on the investment activities of Kazakhstan Temir Zholy, determining the amount of investment. Restriction in costs and intervention in investment activity led to significant losses of the company, reducing the quality of services, and problems with the implementation of investment projects.

In practice, the controller is guided by the above formula for determining the maximum amount of profit that can be included in the fare. At the same time the actual size of the profit is determined solely on the basis of the needs of the approved investment program.

As practice shows, initially regulator approves the investment program infrastructure units KTZ for the next year (in fact, the Regulator to apply restrictions to the investment program, which does not allow the individual to pay back investments due to the tariff). The regulator also claims costs, including depreciation.

Further, a controller determines the level of the tariff the profir to be enough (without excess) to finance the approved investment program.

Mathematically, profit is calculated as follows: from the pre-approved capital expenditures minus approved

subtracted depreciation, ie the rest of the capital costs to be financed by profits.

According to data cited in the report of the Bank, the cost of ABOA taken into account in the calculation of the fare, may differ significantly from the actual replacement cost of the assets. So the cost of 1 km of newly built sections of backbone networks is 10 times higher than the current value of ABOA. The present value of the railway infrastructure, adopted in ABOA services for MRN, reflected in 2004 prices Given that the level of deterioration of the railway infrastructure is 60%, according to the Bank's actual cost of ABOA can be several times (up to 4) higher than that adopted today in the tariff estimates [3].

Moreover, Kazakhstan's economy is characterized by high inflation. In this connection, the present value of ABOA reflected in 2004 prices may be understated by several times since and the price level rose by more than twice. Thus, the difference between the rate adopted in the calculation of the cost of ABOA and approved by the regulator value leads to an underestimation of the costs of depreciation and profits artificially high (Figure 2).

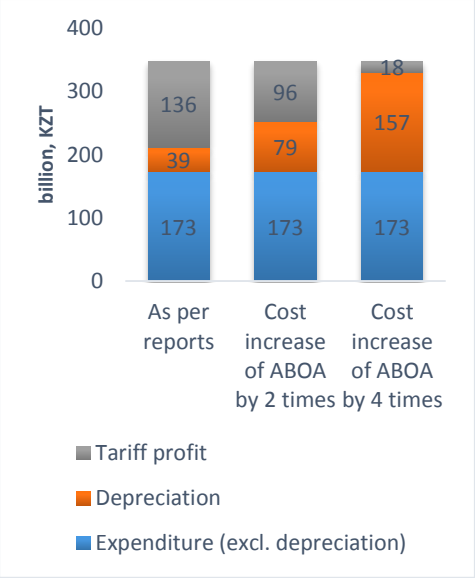

FIGURE 2 The actual rate of return on ABOA

The figure shows that at the current rate of fees for access to the infrastructure of the actual income is less reflected in the tariff estimates (taking into account the present value of the current ABOA).

If the actual cost of ABOA is four times higher than regulator approved tariff estimate, the actual rate of return on ABOA seeks to 0%.

It differs significantly from the yield approved by the regulator, which is indicated when filing tariff applications.

In addition, it is also necessary to consider the presence of uncovered loss of operating costs (discussed above).

Moreover, it should be understood that the expansion and modernization of infrastructure will be funded on the basis of current rather than historical prices.

4 Recommendations

Given that the current tariffs are not sufficient for the purposes of the effective operation of the railway infrastructure and to ensure the level of quality and safety of MRN services, it is recommended to calculate the optimal level of tariffs, which will improve quality and safety, as well as to modernize the railway infrastructure taking into account its wear.

The recommendation to provide adequate or reasonable level of tariffs includes two integrated solutions, which, for the purposes of achieving the desired effect to be implemented simultaneously.

1. Full reimbursement of operating expenses due to the tariff;

2. Providing the required level of profit to be included in the fare.

To implement the proposed solution offers:

- To amend the current methodology in order to oblige the new wording regulator to approve the profit calculated according to the current methodology, and include it in the tariff estimates without any further adjustments by the regulator;

- To amend the current methodology and include the requirement to carry out regular mandatory revaluation ABOA no less frequently than every five years;

- Oblige the regulator to approve an overvalued ABOA immediately after the submission of the evaluation report, in accordance with national standards of assessment;

- Make it compulsory for the subjects of natural monopolies on the recognition of the value of fixed assets for the purposes of tariff at fair value in accordance with IFRS;

Given the possible significant increase in the cost of ABOA, after reassessment, the Regulator may decide to gradually increase ABOA in accordance with the current methodology. However, it proposed to restrict a further period of regular revaluation, i.e. five years. The transition period will allow the smooth increase of ABOA possible impact on rates. In addition, the regulator is Practicing a detailed methodology for calculating the tariff "cost plus" by setting strict limits of all components and sub-components of the tariff estimate. This indicates an excessive market regulation, which in turn leads to lower performance and development of the company.

It is recommended to reduce the excessive level of control by stopping the practice of setting hard limits for each component of the tariff estimate. This measure will significantly reduce the administrative burden, as it eliminates the need for controlling every single component of the tariff cost estimates. Regulation will be subject only to the total amount of the tariff, or its expensive part on the whole. This practice will enable us to determine the cost structure, which enhances performance.

5 Conclusion

The article analyzes the current practice of cost and income forming part of the tariff for natural monopoly MRN services in Kazakhstan.

As a result of the revaluation of the proposed infrastructure KTZ could grow by several times. Correction values of ABOA to the current market value may lead to an increase in profits included in the fare. In addition, as a result of the ABOA value adjustments depreciation shall increase. As a result, rates will need to increase, but at the same time

increasing the depreciation will provide a larger volume of investment in maintenance and modernization of infrastructure.

In general, the growth of tariffs for MRN will allow KTZ to strengthen its financial position and increase revenues. Thus it is possible to stimulate the investment program and to reduce the amount of state support.

As a result of these measures, KTZ will be able to extract the necessary income, which corresponds to the market value of its assets and the present value of equity. Currently, part of the revenue generated by KTZ is formed by users of railway transportation services.

The proposed recommendations are designed to help KTZ overcome investment objective difficulties and try not to reduce at the same time the competitiveness of its customers.

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Motivation of employees' labor activity in companies in Kazakhstan

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Abstract

The in-company mechanism of labor motivation is formed under the influence of a whole range of socio-economic factors, many of which represent rather independent subsystems of this mechanism. All these factors concern either to a number of economic ones, or social ones, but all of them, anyhow are included into the employees' system of interests. Without availability of such a system it is impossible to create the in-company mechanism of labor motivation. In the oil and gas companies this mechanism is not taken into consideration while developing labor motivation in the framework of the Company Strategy.

Keywords: motivation, human resources management, oil and gas companies, Kazakhstan

1 Introduction

In the coming-to-be period of the market economy system in Kazakhstan specific importance should be given to the enhancement of the level of work with the staff of the oil and gas companies wherein to lead this work on a scientific basis using experience which has been gained for many years of domestic and international experience. The issue concerning the activity with the personnel is one of the most important one at the present stage of the economic development of the big number of countries in the world [1-3].

The researches of personnel services experience in a number of oil and gas companies in the Republic of Kazakhstan show that it is needed to carry out the labor relations radical reform, directed not only toward the growth of compensation of employees in all branches of economic activity, but also toward organization of equal economic relations between employees and employers, effective functioning of labor market, wider development of social problems directly in a sphere of production. Not the last place in this process occupies running of personnel services of national enterprises and production, which must stimulate growth of production and staff quality, interest of appearance of employees initiate, organizational discipline and speeded up introduction of innovations in all kinds of production activity, help to normalize functioning of production and technical services and its' branches, creating these conditions for stable and dynamic growth of common production volume in each particular branch of the national economy [4-5].

2 The main part

As an example a forming system of managerial-economic methods of personal management at the oil and gas companies in Kazakhstan which are under investigation should be taken (see Table 1)

The analysis of the existing managerial-economic system in the companies under consideration show that only the LLP "Tengizchevroil" is practicing a wide range of different managerial-economic methods of personal management including social methods of impact on motivation development of effective labor.

The rest of the companies impose strict requirements for workers to comply with organizational matters, but they weakly handle the system of premiums, rise in wages and bonuses to stimulate productivity and work quality.

Furthermore, the studies show that the company "Agip KCO", leading the construction of the refinery "Bolashak" on the deposit "Batis-Esken", violates the constitutional rights of Kazakh workers: working time is carried out for 60 hours instead of 40 hours, without security and safety, five accidents have taken place, two of them with fatal outcome and the company's guilt is proven.

TABLE 1 System of personal management at the oil and gas companies of the Republic of Kazakhstan

Name	Methods of management							
	inflexibility of managerial measures	dependence of base salary on labor results	availability of rise in wages	availability of premiums	availability of bonuses	Availability of social aid		
						in education	health care	in solving of housing and communal problems
JSC «Mangistaummunaigaz»	×	+	+	+	+	–	+	–
LLP «JK Arman»	*	–	–	+	–	–	–	–
JSC «KazakhoilEmba»	*	+	–	+	–	–	+	–
LLP «Tengizchevroil»	*	+	+	+	+	+	+	+
Agip KCO	*	–	–	–	–	–	–	–

Note: 1 Was composed by the author; 2 «*»having a strong factor of influence as a method of management; 3 «+»the availability of appropriate management measures; 4 «–»lack of appropriate management measures

In all companies except LLP "Tengizchevroil" there is no an aid system for employees' professional training. Besides they do not solve other social problems which are able to preserve the staff's revenue, i.e., which have indirect impact such as incentives stimulating motivation to develop working activity.

3 Motivational model for labor remuneration in oil and gas companies.

The main motivational model for labor remuneration in Kazakh oil and gas companies is based on a multistage approach (see Figure 1.)

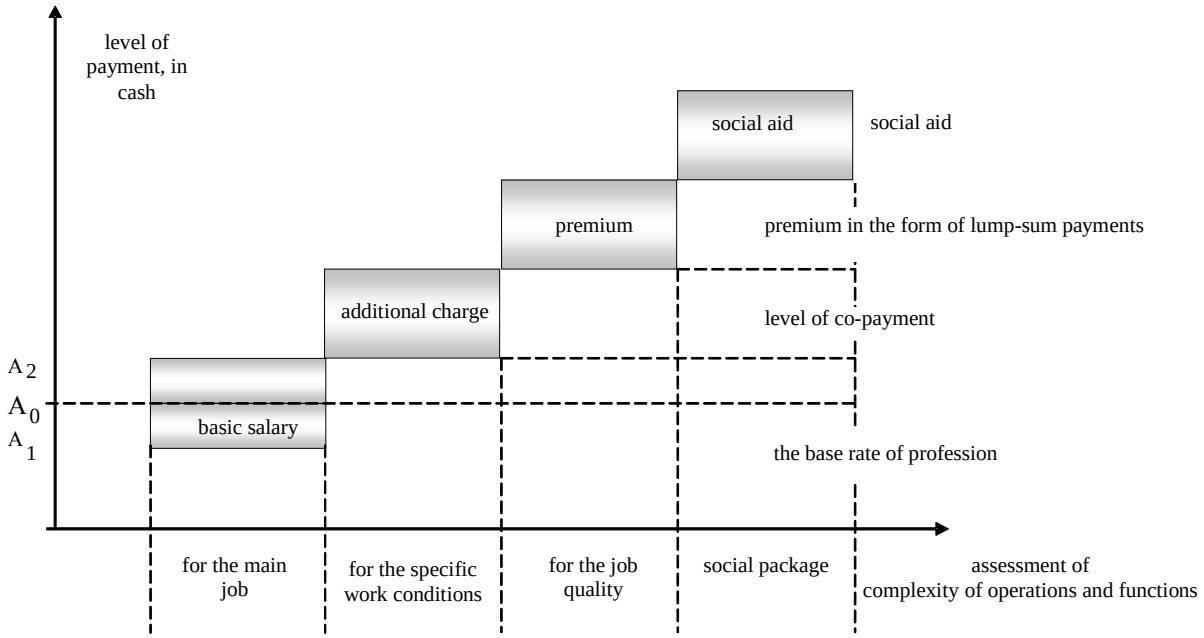

FIGURE 1 Labor Motivation System

Figure 1 shows that the basis of remuneration is the basic rate of executable functions realized within a particular profession or occupation. In relation to the individual work it can be raised or lowered in dependence with the professional job training, level of education and work experience. Then an additional charge, regular premiums or one-time award bonuses can be added according to the special working condition. At the same time social control methods can be used within the framework of specific conditions which pointed out in collective agreements or top management decisions. However, as it is evident from the above presented Table 1, in many oil and gas companies in the RK the social methods of management are not used perfectly or not used at all, and such a situation is typical for all Kazakhstan enterprises.

Such an economic motivation determines its effectiveness as a stimulus. However, if many oil and gas companies in Kazakhstan pay bonuses and allowances, but as for the social package only some of them have it, and very often it is not extended wider than it is stipulated in the legislation of the Republic of Kazakhstan. Besides, in the oil and gas regions of Kazakhstan one can frequently observes

the situation in which the local population is in dire economic and social condition. At the same time the high wages of the oil and gas industry employees do not make notable effect to improve the situation. It only promotes the growth of market prices. The companies' employees only anger the local population, and sometimes causing conflicts between them. These issues demand the Governmental assessment of the oil and gas companies' possibilities to take part not only in solving the social problems of their own workers but as well as in solving of regional problems where their companies operate.

At the same time it should be taken into consideration that the international treaties, ratified by the Republic of Kazakhstan are applied directly to labor relations, except the cases when an international treaty requires issuing of a special law for its application.

On the basis of the Article 9 in "The Labor Code of the RK" in our country the following relationships are considered in the working process of the oil and gas companies:

- labor relations;
- directly related to labor relations;
- social partnership;
- relations on security and labor protection [5].

Therefore, Kazakhstan oil and gas companies work with their own staff in the framework of "The Labor Code of the RK" and other normative legal acts which regulate labor activity in the country and provide guarantees to the citizens of Kazakhstan according to Article 145 in "The Labor Code of the RK":

a) Protection against all forms of discrimination and ensuring equal access to get profession and work;

b) Training, retraining, professional development and organization of social works for the unemployed;

c) Promotion the development of small business and entrepreneurship;

d) Organization of labor intermediation through the authorized body on employment in the private employment agency;

d) Providing vocational orientation information about free job places and vacancies;

e) Orientation of the system of vocational education for training specialists which are in demand of the labor market;

f) Inter-regional redistribution of the labor force in accordance with the governmental programs;

g) Development and implementation of measures to identify and legalize the labor relations;

h) In the investment contracts to ascertain the responsibility for investors to arrange trainings, creation of new and preservation of existing job places;

i) Creation of conditions to develop vocational training and retraining and advanced training directly in the organization;

j) Interaction of the authorized bodies on employment issues with employers;

k) Ensuring the conditions for the employment of persons belonging to the target groups [5].

4 The analysis of the system of the personnel services' functioning in the oil and gas companies

The results of the interviewing the personnel in some fields of Kazakhstan companies, including JSC "Anaco", "Karachaganak Petroleum" and LLP "Ah-danmunay" showed that they do not see the difference between the functions of personnel departments and human resource management departments. Moreover, some line managers of small companies and service stations engaged in oil mining, just do not understand why they need in specialized personnel departments because they believe that 2-3 company employees can be engaged into filling in the documents.

As a result, in Kazakhstan a new pattern has appeared: the labor results of employees in no way are related to the companies' activity, almost everywhere the employees are not involved into the management of production process, they are not informed about the financial results of the operation of their businesses, in the oil and gas companies of Kazakhstan authoritarian style of management becomes stronger and stronger and it's not always clear what for the wage increase can be realized or what for the premium is paid.

At the same time the respondents pointed out that the social assistance of the company is usually one-off cost and of small size, not comparable to the revenues that the companies have as a result of their production and marketing activities. The result clearly revealed a low level of transference of authority from one level of management to another one, that the budget allocated for this purposes is not enough at all, the personnel services haven't enough functions. In the big oil companies in Kazakhstan with foreign participation many of these problems are already resolved.

The state of equipment and technologies in the oil companies of Kazakhstan, especially in small ones where there are high level of equipment wear and low level of processes automation of oil production and transportation, aggravates the negative tendencies [6-7].

There are problems with the level of total wages paid for the actual amount of work performed in a certain time period with respect to the plan taking into account the system of bonuses in companies, the lack of clear regulations on labor tariffing and the impact of price rising on the growth of wages.

The instruments to overcome these negative tendencies in Kazakhstan could be:

- establishment of additional to the disciplinary perfect criteria to reduce payment, dismissal of an employee from the company or increasing his salary according to specific indicators;
- wider development of the social labor incentives and social programs within companies;
- working out parallel movement of employees from one position to another with the help of organized system of alignment and replacement of professions;
- creation of perfect system of employee's labor results assessment with the help of expert (quality);
- working out a ranking system of quality indicators as the basis for the additional material incentives of each worker.

The implementation of the latter provision requires to determine the legal status of the employee in the company's activity, where besides the description of the workplace, job descriptions and the availability of the rules the system of

bonuses should be taken into account:

- standards to perform work functions;
- possible ways to enlarge empowerments;
- perspectives to change specific forms of activity;
- standards of professional development opportunities of the employee while receiving additional training or experience [8-10].

All these issues give the opportunity to create the relevant SWOT-analyses concerning the activity of personnel services in Kazakhstan oil companies (see Table 2) as compared with the enterprises in other branches of industry and relevant foreign companies.

Table 2 shows that the presence of threats and opportunities to improve effectiveness of personnel management in Kazakhstan oil companies mainly take place in the areas of expanding of power and authority of personnel services. However, they are closely linked to one of the most pressing issue for the country as a whole - creation of a modern infrastructure for training and retraining of human resources potential of the country with the help of effective mechanisms for the implementation of innovative technologies.

In addition, currently at the big oil and gas companies in Kazakhstan the problem of employees' removal from participation in production management is quite obvious. The same problem can be seen in all big Kazakh management structures, which can be estimated as a consequence of the period of reforms in the country when the authoritarian style of management dominated at all levels of management. As the consequence there were no strong mechanisms to involve employees into the process of production management and to develop employees' potential and democratization of control systems [11-13].

As a result, today Kazakhstan has weakly developed stimulating management methods which cannot provide strong influence to motivate workers and to form their desire to maximize efficiency. In this respect, the most positive examples they have in Germany, where they have an excellent conditions to involve employees into management through the mechanism of acquisition of companies' shares in Norway, Sweden, Denmark, France, Japan, where many elements of certain participation has been already worked out.

TABLE 2 SWOT-analysis

Week points	**Strong points**
poor arrangement of personnel planning; insufficient participation of personnel services in motivating activity of personnel; insufficient participation of personnel services in personnel training, retraining and forming of labor potential; small range of functions; insufficient participation in the enterprise management; the absence of links between the personnel development plans and enterprise developing; absence of plans to adapt to the possibilities of market changes; weak linkage with educational institutions which educate necessary.	There are certain social programs attractive for the personnel; There is a better economic motivation than in other branches of industry; There are certain methods of selecting and testing of staff; Perfect organization of works in the framework of company's tasks; There are some elements of managerial culture; There are training programs in some of the oil and gas corporations; Gradual creation of feet back links with educational institutions.
Threats	**Challenges**
Possibilities to replace staff with younger specialists; Tendencies to enlarge export potential of foreign specialists; Growth of perspectives to lose the national labor potential; Reduction of influence on effectiveness of utilization of labor resources; Lack of growth of possibilities to impact on the effectiveness of resource potential usage in the future; Lack of links of employees with the development of productive capital because of their exclusion from the property; Absence of employees participation in productive activity management of the company ; Not fully effectively organized management structures.	Promote young people to master professions of the oil and gas complex ; Enlargement of functionsoorf the personnel services concerning rights and responsibilities, credentials and power; Creation of the conditions for participation in the process of optimal managerial decision making on the planned basis; Forming of plan-orders to train young specialists; Creation of the ranking system of the labor utilization quality assessment for economic and social motivation; Impact development on the specialists training in the country and forming national security of the state; Creation of more developed system of social labor stimulus, which can influence on the patriotic attitude of the employees towards their own companies; Developing of co organized management structures.

Note: was composed by the author.

There are many good examples one can find in the USA, where they actively involve not only their employees but also the population of the country through shares to participate in the managerial process in the enterprise [14]. Kazakhstan is following, in some sense, the Russian mistakes where, on the one hand, there is a greater part of the population participate in the corporatization of enterprises but the part of foreign investors comparatively small.

On the other hand, at the All-Russia Personnel Congress which was held in 2003 showed that more than 40 per cent of questioned respondents noticed that they did not understand, what for the personnel service should be involved in those processes. As a result the part of managers and shareholders become richer on production functioning, but the basic part of workers does not receive additional incomes, and moreover does not express the initiative in relation to development of many working processes. They also have no any additional income from growth of production income and they are passing gradually to the category of middle and low profitable levels of population, and HR-managers have not enough power and insufficient budget allocated to work with the personnel.

All this cannot enhance the enterprise on the higher level

of human resource management, and personnel services cannot enlarge their possibilities to work with the personnel.

5 Conclusion

The oil and gas companies as the biggest production enterprises of Kazakhstan can be considered as the most developed ones concerning the efficient personnel management by means of motivation to productive working activity. Therefore limitations of the working activity of the oil and gas companies of the Republic of Kazakhstan concerning usage of labor resource are not typical for other industrial Kazakhstan enterprises in regarding ways of their overcoming. However searching for ways to improve staff management in these companies can be considered as strategic ones for all production enterprises of Kazakhstan.

The most striking weakness of personnel management in the oil and gas companies of the Republic of Kazakhstan, regardless to their forms of ownership, and the founders is the functional limits of the personnel service. They cannot fully influence on the adoption of specific management decisions in respect of the staff and poor participation in the development of incentive system to encourage employees to work effectively as well as the lack of funding the activities to develop training and education of future human resources for these companies

Many modern economists point out that the choice of objectives in terms of maximizing revenue growth in the conditions of market relations may be false. Preservation and development of the labor resources should be the priority. This fact requires new approaches to human resources management in Kazakhstan and the formation of a new concept of specialists training for the oil and gas companies in our country.

The formation of the rational construction of management structures takes a special place in the personnel management mechanism. However, while searching for methods of such system construction the certain principles should be realized and systemization of which should allow overcoming weaknesses of the given management at the Kazakhstan enterprises.

Kazakhstan's step system of economic stimulus which is connected with the quality and intensity of working activity is not used effectively. Almost everywhere they do not handle the social methods of management capable to support economic methods and to strengthen motivation system as a whole. Creation of similar system demands preliminary calculations because such incentives depend on budgets of the organizations and should assume not only the will of the top managers in the given direction, but also considerable improvement of planning work at the Kazakhstan enterprises.

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Potential and prospects of development of agro-, ecotourism, its role in the revival and sustainable development of rural areas of Belarus

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Abstract

The current state, condition and prospects of the development of rural tourism; reasons hindering the development of agro-, ecotourism, rural tourism in the Republic of Belarus; the role of rural tourism as a means of economic and social revival of rural areas are considered

Keywords: agrotourism, ecotourism, the development of rural tourism, the problems of entrepreneurship in rural areas

1 Introduction

Tourism is considered as one of the most profitable and intensively developing branches of the world economy. By the beginning of the third millennium 8% of the world export total amount and 30-35% of world trade by services fell to the share of the international tourism.

The tourism development plays an important role in the solution of social problems. In many countries of the world due to tourism new workplaces are created, the high standard of population living is supported, prerequisites for improvement of the country payments balance are created. Development necessity of the tourism sphere promotes education level increase, improvement of medical care system of the population, introduction of new means of information distribution etc.

Tourism has positive impact on preservation and development of historical and cultural heritage, conducts to the relations harmonization between various countries and people, make governments, non-state organizations and commercial structures to participate in preservation business and environment actively improvement.

The tourism development in any country, region depends on the whole complex of factors, conditions and resources. In spite of the fact that Belarus has no these resources, which are fundamental for tourism, it has a number of advantages in comparison with other countries. Among them:

- proximity to Western Europe, Scandinavia - to the tourist market with very high financial potential;

- the neighbourhood with the Baltic States, Russia, Ukraine is a serious resource to development of cross-border tourism;

- ancient and rich history, original culture (15 thousand objects having the historical, cultural and architectural importance);

- the rich natural potential including unique wetlands, the relic wood - Bialowieza Forest etc.

2 General

These A great role in the development of the tourism industry of a country has the development of agro- and ecotourism, or, in other words, rural tourism, which can provide in local areas the economic development of local communities while preserving and improving the quality of natural environment. The experiment has shown this in Poland, Lithuania and Scandinavian countries. Rural tourism is considered in most countries as a means of economic and social revival of rural areas. Agro-, ecotourism activity and its infrastructure are usually small-scale, but in general for the local communities which don't have alternative they can carry out a role of habitat forming branch, providing a shaft, workplaces, tax revenues, investments attraction.

Agro-, ecotourism should be:

- based on use of natural resources;
- ecologically steady that is not to do harm to environment;
- aimed at education and education of people;
- caring of preservation of the local welfare environment;
- ecologically effective and providing a sustainable development of regions.

Agro-, ecotourism components of this or that territory are:

- transport and economic infrastructure;
- existence of the prepared staff;
- information potential;
- the natural potential, where the natural objects, which kept a primitive(original) state, didn't undergo anthropogenous activity, have special value;
- historical and cultural value objects.

Rural tourism is a diversified concept, which includes, besides rest in the countryside, an acquaintance with cultural monuments and industrial heritage, as well as the elements of education, holidays, festivals, ecological attractions, theme parks and museums that is why rural tourism is the most polymorphic concept among all types of tourism. It is important to understand that the effective development of rural tourism is possible only in case of

"balance of interests" of all its components. In order to ensure the harmonious coexistence of all the components of rural tourism, it is necessary to take into consideration the interests of residents and tourists and take care of the environment.

The balance of these three components can ensure the realization of the basic principles of sustainable development:

- nature-oriented principles that protect the environment from destruction and that control acceptable load on rural areas;
- social principles that guarantee the protection and inviolability of cultural diversity and the local community's way of life;
- economic principles that contribute to the development of economic diversity of the region, the creation of jobs, the control of migration to the city;
- cultural and historical principles that ensure the beneficial influence of tourism on the local population and cultural variety [1].

The usage of the mentioned principles is extremely important in planning of the development of rural tourism. They should be the basis of the subjects: producers of rural tourism services, travel agencies, tourists, bodies of state authorities and a local government. This will ensure a harmonious and efficient development of rural tourism. Among the main advantages that it provides, following can be mentioned:

- The additional income possibility for local residents;
- Local services sector support and development without significant foreign investment;
- Strengthening social contacts and opportunities for cultural exchange with tourists;
- Towns and villages convergence, the society harmonization;
- Promote an attractive environment establishment, preservation and revitalization of historic buildings, scenic spots.

The Republic of Belarus has all the necessary resources for the rural tourism development: the beauty and unspoiled nature, friendly, hospitable people, the agricultural landscapes diversity, cultural and historical heritage uniqueness.

Notwithstanding the foregoing, the rural tourism development in Belarus is still in its infancy. This is confirmed by modern furnishings in the Bialowieza Forest, Braslav lakes in Naroch region, where homes are equipped to receive guests, but in most parts of the country there is no rural tourism infrastructure. Offer vacation in agritourism farms addressed mainly to individual tourists, families or small groups experiencing the need for new leisure forms.

It should be noted that the agrotourism - is not only a combination of accommodation and food in the farmhouse. The vast majority of agro-tourist services consumers offer expect a large package of recreation in the vicinity of the village, district, region. Bring additional revenue:

- Local products direct sale (without intermediaries and transport);
- Meals sale prepared from their own products;
- Handicrafts sale.

On tourism to earn not only the people who directly serve the guests, but also - trade, service stations, masters and other services, which in the tourists face acquire new customers. It accelerates the movement mechanism of the local economic infrastructure. As a result, revenues generated from tourism, cause an increase in the demand for other goods and services that go with it have nothing to do.

Expanding employment opportunities and generate additional income for the rural population, village tourism brings not only economic benefits.

A necessity of tourist services standards improvement contributes to the local infrastructure development: water supply, sewerage, roads, telephones, public transport, walking routes, all of which improves the rural life quality.

Thanks to tourism, rural families acquire new activities, learn entrepreneurship, establish contacts with new people, under the influence of which can change views to perceive different patterns of life.

Demand preliminary assessment for agro-detects is presence of a large market of potential buyers. First of all, it's urban population (6.9 million people), And particularly in large cities [3].

The main objective in the development of rural tourism is creation of a competitive tourist products (network of rural houses, educational and environmental excursions), followed by it promotion and consumer realization. Services sales can be carried out directly to tourists, through agents, travel agencies, non-governmental organizations (if this type of activity is, in its Charter).

Experience neighbors Lithuania, Poland and Ukraine can be used in our country. However, the rural tourism success depends on the coordinated work of the local population, government, non-governmental organizations, tourist agencies and international organizations.

Each of these actors plays an indispensable role. Local people interested in this kind of activity, ie. It provides extra income as estate owners and their neighbors.

Local authorities should support the idea of agro-tourism. It inflows additional money into the area, improving its infrastructure, create new jobs places. Local authorities can apply for the tax incentives provision, subsidies it receives certain persons involved in the tourism services provision.

The central authorities should support this initiative. It is the only form of tourism that does not require external investment, but improves our country tourist image. In addition, support for agro-tourism - is to support the rural population and agriculture in general.

Special role in the development of agro-tourism play associations. They bring people together, allow to defend their interests, improve their skills, teach(show) them how to contribute to the idea promotion of agro-tourism and tourist services directly.

The role of tourism enterprises is indispensable in the implementation and promotion of agro and ecotourproduct. A project success for the rural tourism development in Belarus largely depends on the relationship with the national parks. Between national parks and owners of rural houses, where tourists stop, may mutually beneficial cooperation. Park visitors can provide a range of services: excursions, restaurant meals, picnics on the meadow,

perhaps, fishing, hunting. Visitors can buy souvenirs in the park, and in future products such as herbal tea, honey and so on. The homes owners that will sell and advertise these services can work on commission basis or on mutually beneficial cooperation. For example, mutual advertising, information on accommodation availability in rural houses should be provided to visitors of national parks. And accordingly, the services of national parks will be promoted among those living in rural homes. Householders can also be trained in the national parks and get permission for excursions, show some objects.

The prospects of the development of rural tourism are largely defined by changes in the legal basis. It should be mentioned that the development of business activity in rural areas in the Republic of Belarus is slow and inconsistent, at a slower pace than the economic reforms realization and the private sector establishment. This situation is typical for each transition economy. And this is connected not only with the reasons and circumstances of an objective type, but also with a lack of attention and influence of patterns of a civil society, business, scientific and industrial associations to the problems of rural areas and in whole economy of small business.

At the moment, the promotion program of agro-, ecotourism in Belarus as a whole is particularly important. Its goal should be a rise of public awareness and the creation of a positive attitude to this type of recreation.

3 Conclusion

The modern state of the tourism industry in the Republic of Belarus indicates that it still does not take the same considerable position in the national economy, as in the developed countries. Despite the available tourist and recreational potential, an advantageous geopolitical position, the presence of rich historical and cultural heritage, the country takes a very modest place in the world tourism market and is far behind neighboring countries (out of 15 thousand objects of historical, cultural and natural heritage for tourism purposes is used less than 5%) [2]. The tendency to prevalence of outbound tourism over the entrance is going on (remains).

At present, the promotion of tourist product in Belarus are not efficient enough, as the main participants in the domestic tourism promotion in the foreign market are tourist firms engaged in the tourists reception and foreign services (foreign ministries) of the Republic of Belarus provide only general information about the Republic of Belarus.

Overcoming of the existing trends in the development of tourism involves activation of the state policy in this sphere, giving tourism a status of the priority direction in the economy, the creation of legal, institutional and economic foundations of the formation of the Republic of Belarus in the modern competitive tourist complex.

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Genesis of the Theory of Intellectual Capital and Its Importance in Modern Economy

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Abstract

Economic progress and scientific and technological revolution have led to the steady increase of the role of the intellectual component of both economic and social development in the recent decades. Innovative ideas, non-standard management solutions and inventions in all fields significantly affect not only the competitiveness of companies, but also social and economic progress and the life of humanity as a whole.

The first steps in the study of intellectual capital were performed in the developed countries of Europe and Northern America in the second half of the 20th century in response to the increasing trends of the growing role of intangible assets in economic relations and the transformation of production systems of these countries. By the end of the 20th century the proportion of intangible assets in the structure of capital of European and American companies grew up to 50 %, in Japan it started to approach 60% [15, c. 103]. The EU countries are the leaders by the Knowledge Economy Index (KEI), developed by the World Bank to assess the ability of countries to create, receive and disseminate knowledge [19]. In the EU countries, expert research has shown that the companies, which use intellectual capital only partially, receive on average only 14% of contingent gain, those that use intellectual capital more actively, receive 39%, and the companies, which consider intellectual capital to be basis of their development, receive 61% of contingent gain. Even in the developed countries only 20-30% of investments in innovation are made by the state and most of them are related to government business. The remaining 70-80% is the investment of private business, for which innovation is the means to survive in competition [26]. Therefore, the intensification of the theoretical and practical research of intellectual capital is one of the major tasks of modern economic science.

It is important to note, that there is no single, unambiguous definition of intellectual capital in the scientific community, as the multidimensionality of this notion, its conceptual fullness and the diversity of approaches do not let to work out the unambiguous definition. Nevertheless, at different historical stages of the study, specific aspects of intellectual capital were emphasized, which determined the dominating approach to the interpretation of this category.

Respectively, the majority of the existing definitions of intellectual capital can be considered from the viewpoint of several approaches. Having analysed the existing approaches (Table 1), the conclusion can be made, that the exaggerated emphasis to the resource approach does not allow to take full account of those aspects of intellectual capital which are considered by other approaches (synergetic, integrated).

TABLE 1 Approaches to the definition of intellectual capital

Approach	Content
Resource approach	Intellectual capital is studied from economic perspective, namely, capital as national wealth. This approach to the definition of intellectual capital is reflected in the work of researchers from different countries (T.Stewart, A.Brooking, L.Edwinsson. M.Malone, P.Sullivan, V.Belokon, I.Zlotnikov, F.Nikolaev). In the framework of this approach the researchers generalize human, structural, consumer, organizational, process, innovation and cultural capital in the concept of "intellectual capital". Herewith, in the framework of the resource approach the category of human capital did not exceed the status of "resource", which can be used in a company to gain advantage over competitors.
Synergetic approach	Intellectual capital is considered as the knowledge, skills and practical experience, which are implemented through the intellectual activity of persons; appear to be the form of intellectual, moral- and cultural-oriented skills in the creation of new, previously unknown knowledge, which provides intellectual rent and various competitive advantages. Unlike previous, this approach considers intellectual capital as national wealth only in the process of intellectualization of labour.
Integral approach	This approach involves the consideration of intellectual capital as the aggregate amount of knowledge of all the individuals of society, who ensure its competitiveness. Therefore, under this approach intellectual capital is viewed through the integrating complex of intellectual, creative, innovative and other abilities of all individuals, who are united in one or the other team, organisation, nation, but not as the sum of characteristics of individuals.

Note: Composed by the Author based on [14, 16].

To create conditions for innovative economic development it is essential to search for mechanisms of the attraction of perspective resource in the form of knowledge, information, and intellectual potential. Intellectual capital was first studied by Drucker P. F. in his work "The Concept of the Corporation" on general issues of management [2].

Drucker P. introduced the concept of "knowledge worker" [3] as well as the more generalized concept of "knowledge society". Drucker makes the conclusion that it is knowledge that becomes the main factor of production in the post-industrial society, and therefore the main task of management is the transformation of knowledge into a productive force of society and the improvement of production efficiency through the use of knowledge.

Later this topic was studied by John Kenneth Galbraith in his work "The New Industrial State" (1967) [17]. The concept was studied in the context of the growing role of knowledge-intensive industries in the modern economy of his time. Galbraith was the first scientist who used the term "intellectual capital" as something more than "pure intellect" and including "purposeful intellectual activity" of an individual. Thus, for the first time to describe knowledge the concept of capital was used, being the value, which generates profit or helps in the creation of other values. Anyway, knowledge and human intellect are the main and determining resource of the concepts of both Drucker and Galbraith. In the conditions of modern economy, on the growing global market and competition where technologies are continuously substituted by more advanced ones and products and services become obsolete within a short period of time, only those companies can be successful, which constantly create new knowledge, disseminate it in the entire organisation and rapidly implement this knowledge in new technologies and products. Intangible assets – information, new knowledge and objects of intellectual property, which constitute the intellectual capital of an individual, company or organisation, – are the most valuable ones for these companies. This is also attested by the fact that the proportion of new knowledge, which is implemented in technologies, equipment and organisation of production in the economically developed countries, is responsible for 70-85% of GDP growth [18, p. 36].

Thomas A. Stewart, who is considered to be one of the most prominent scholars of the intellectual capital of an enterprise, defines this concept as the aggregate of knowledge which provides personnel's competitiveness. The researcher notes, that intellectual capital is the intellectual material, which includes knowledge, experience, information, and intellectual property and participates in the creation of values. Intellectual capital is collective mental energy, including a company's organizational structure, information technologies in use and its business reputation [12, p. 14]. Thus, intellectual capital not only ensures the competitive position of a company on the market, but also generates profit. This type of capital exists in the form of dynamic system of knowledge, and at the same time in the way of aggregate tools, which assist in the constant increase of aggregate knowledge. Intellectual capital is purposefully formed around a certain task, person or an enterprise.

A. Brooking [1, p. 37] points out that "intellectual capital" is the term for intangible assets, the components of which are human assets, intellectual property, infrastructure and market assets. B. Leontiev provides similar definition [25, p. 45]. He considers intellectual capital as the aggregate value of existing intellectual assets, including intellectual property, natural and acquired intellectual abilities and skills, as well as accumulated bases of knowledge. Regarding these definitions it should be noted that aggregated intellectual assets become intellectual capital only when they are used efficiently and generate profit.

TABLE 2 Definitions of intellectual capital

No.	Author	Definition
1	Butnik-Siverskij A.B. [14, p. 43]	Intellectual capital – knowledge and intellectual potential of an enterprise, which are the new criteria to determine a company's competitiveness.
2	Virchenko V.V. [15]	Intellectual capital – the aggregate of the results of intellectual activity, which ensure the creation of new value due to advances in production, allow to increase the effectiveness of economic activity, gain additional profit and ensure competitive position on the market.
3	Grishnova E.A. [19]	Intellectual capital – the unity of structural capital, consumer (client) capital, qualification, professional skills of employees, and a company's achievements in the field of effective organization of the work of personnel.
4	Duffy D.[21]	Intellectual capital – the body of knowledge, which is available to an organization through its employees, as well as in the form of methodologies, patents, architectures and communications.
5	Efremov V.S. [22]	Intellectual capital – knowledge that is available to an organization and expressed in clear, unambiguous codified form, allowing to share it.
6	Petrash G. [8]	Intellectual capital – aggregate knowledge of a company's employees, the effective management of which allows to increase its profit.
7	Klein D. [6], Prusak L. [7]	Intellectual capital – intellectual material of an enterprise, which is formalized and fixed in its assets and ensures the increase of market value.
8	Meshcherjakova M.A. [14, p. 133]	Intellectual capital – the interrelation of a company's brand strength, its relationships with partners and customers, as well as employees' intellectual potential and relationships with the company's partners and customers, which ensures the generation of additional value and company's competitiveness on the market.
9	Swart J. [9]	Intellectual capital – tangible result of a company's activities in the form of goods and services offered on the market, which embodies the unique individual and group knowledge and skills of its employees
10	Sudarsanam S. [10]	Intellectual capital – knowledge, which is represented in the form of a company's assets and extremely enhances its competitiveness, generating added value for shareholders.
11	Tobin J. [13]	Intellectual capital – positive difference between market valuation and the book value of a company.
12	Toffler A. [27, p. 5]	Intellectual capital – intangible capital, which, unlike the traditional forms of capital, includes knowledge, is inexhaustible, available to the unlimited number of users simultaneously and exists in the form of information flows, symbols and electronic signals.
13	Fortune T. [28]	Intellectual capital – the body of employees' knowledge, which creates a company's competitive advantage on the market.
14	Chuhno A.A. [29, p. 282]	The structure of intellectual capital includes knowledge, which is inseparable from an individual, as well as specific conditions for the application of this knowledge in order to increase the competitiveness and effectiveness of a company. Intellectual capital accumulates scientific, professional and technical knowledge of workers, combines intellectual labour and intellectual property, and information networks – everything that defines a company's reputation and ensures the formation of wealth of modern society.

Note: Composed by the Author

L. Edvinsson – practitioner in enterprise knowledge management, Board member of insurance company Scandia – worked out a report on the factors, which influence market value of companies and made the conclusion that intellectual capital plays the crucial role in this case. Together with M. Malone he published the work "Intellectual Capital: The Proven Way to Establish Your Company's Real Value by Measuring Its Hidden Brain Power" [4], where it is pointed out that intellectual capital is the set of structural elements produced by human knowledge and determining the hidden sources of value, which are capable to endow companies with non-traditionally high price.

Nowadays intellectual capital has become an important object of scientific research. V.L. Inozemtsev [24, p. 132] defines intellectual capital as information and knowledge, which participate in production process. In his opinion, intellectual capital is a sui generis "collective brain" of an enterprise, which accumulates the scientific and everyday knowledge of workers, intellectual property and accumulated experience, communications and organizational structure, information networks and company's image.B.B. Leontiev [25, p. 39] considers intellectual capital as the value of a company's intellectual assets, which include the objects of intellectual property, natural and acquired abilities and skills, as well as accumulated bases of knowledge and beneficial relationship with other business entities – clients, marketing channels, long-term commercial agreements. Wherein the value of intellectual capital is determined by the effectiveness of its use in the production process, and its main function is to accelerate the growth of profit due to the formation and implementation of the system of essential knowledge in order to ensure a company's efficient economic activity. As the scientist notes, intellectual capital is the system of a company's sustainable intellectual advantages on the market.

Let us consider some other definitions of intellectual capital proposed by scientists at different times (Table 2).

Thus, the analysis of authors' approaches to the study of the essence of intellectual capital shows that the majority of scientists consider intellectual capital to be a company's valuable intangible asset, which, when used efficiently, ensures competitive advantages and generates income. The specificity of intellectual capital is in the fact that its use leads to the creation of new intellectual products, carriers of added value, which are embodied in the new knowledge, skills, innovative consumer and production goods.

Critical analysis of the main theoretical approaches to the representation of the concept of intellectual capital allows to formulate the following definition: intellectual capital is the aggregate of human, structural, consumer, organizational, process, innovative and cultural qualities of society, which are acquired through learning, skills and experience, applied in intellectual activity by each member of society individually or collectively and increase work efficiency. Unlike the existing definitions, the one we offer not only considers all the key elements of the concept, but also provides the theoretical foundation for the research in this field. The efficient management of a company's intellectual capital as well as the conceptual features and methodological problems of the evaluation of intellectual capital on micro level will be considered in the framework of further research.

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Authors index

Baigazina N	54
Dehtjare J	7
Dyakona V	68
Fedartsova T	65
Koryuhina C	12
Kulmagambetova Zh	16
Kurmanov N	60
Kussainov A	32
Kutyrieva L	21
Riashchenko V	7, 21
Sabitova S	38
Shamshina T	12
Tultabaev S	27, 38, 45
Tutkusheva Zh	27
Uteubayev T	60
Zhivitere M	16, 21, 27, 38