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КИЇВСЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ  
ТЕХНОЛОГІЙ ТА ДИЗАЙНУ**

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## THE MODEL OF EVALUATING THE EFFICIENCY OF EDUCATIONAL SERVICES MARKET BASED ON THE BALANCED SCORECARD

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### Keywords:

educational services market, balanced scorecard, financial and non-financial indicators, the efficiency of educational services market.

### ABSTRACT

There has been considered in the article the issue of evaluating the efficiency of functioning of the educational services market under the conditions of national economy formation. There has been analyzed the educational services markets of Ukraine and China. There has been suggested the model of evaluating the effectiveness of functioning of educational services market based on the tools of the balanced scorecard.

**Statement of a problem.** Raising the **efficiency** of educational services market as well as functioning of higher education institutions (HEIs) and its evaluation is one of the most significant problems of modernizing the higher education in Ukraine. Therefore, the problem of developing the quantitative assessment of the efficiency of educational services market becomes a very topical one. Under the conditions of mass activity aside this problem the very important fact is that well-known indicators which are used in business as well as in non-commercial organizations are usually not interrelated (or correlation is not essential). For instance, these are the income from rendered services, the size of expenses, profitability, proceeds, consumers' contentment etc. Each of them reflects different information about the efficiency of organization. Therefore, such a scorecard is needed which will feature the efficiency of organization more comprehensively.

**Literature overview.** A lot of famous scientists-economists such as R. Lanch, K. Cross, K. Adams, P. Roberts, L. Meisel, M. Meyer, R. Kaplan, D. Norton dedicated their works to investigating the problems of measuring and evaluating functioning of enterprises and organizations.

Under new market conditions of providing the consuming market with goods and services the innovative tool for Ukrainian economy is the modern concept of evaluating the business efficiency called **the balanced scorecard (BSC)**. It was designed in 1992 by Robert Kaplan and David Norton, the professors of Harvard school of economics [5]. The BSC is founded on the usage of financial and non-financial indicators of activity. **Its gist** is in organization management by means of achieving the quantitatively determined strategic aims for each separate subsection. BSC is the modern tool of quantitative evaluation of enterprise performance that also can be used for higher education institutions (HEIs).

The system provides **balanced scorecard of financial and non-financial efficiency indicators** that deal with additional information about economic performance. The search of necessary indicators and their combinations for determining the performance of specific organization is a complicated issue, especially calculating different formulae for paying salaries to the workers according to the results of their work.

Recent years witnessed many scientific papers and examples of using the balanced scorecard. The disputes about the problems of evaluating the efficiency are to be continued (Meyer, Marshall [7]). Most of researchers consider that the modern **assessment of efficiency consists in evaluating income received by a company that exceeds its costs** (Kalenyuk, Kuklin [4]; Kremen' [6]; Meyer, Marshall [7]). In our opinion, for comprehensive understanding the efficiency of educational services market, both financial and non-financial measures are to be analyzed.

During the time of its existence the concept of BSC has been constantly improved, but has not been changed dramatically. For instance, the system of analyzing HEI development management comes from the fact that the balance of indicators means evaluating in 4 areas of efficiency: finances; employers/students; education process and potential; infrastructure/ employees (Bakharev, Burgonov [1]; Gedro, Kosova [2]). It allows raising the efficiency of training future professionals.

**The main results of research.** One of the BSC peculiarities is that it is based on the systemic approach as the indicators have to be interrelated with HEI strategy. Each indicator should be the part of the cause-effect relations that provide information about the implementation of the strategy. Besides, all the indicators should be consistent with financial aims of education market as the systemic approach permits to discover the essence of the educational services market as a socio-economic system and to give a comprehensive assessment of economic phenomena and processes that occur at the market. Therefore, the adaptation of BSC for evaluating the efficiency of educational services market is topical [3].

We have developed the model of evaluating the efficiency of educational services market of Ukraine and China based on 4 main components of indicators [8]:

- financial component of HEI activities indicators;
- scorecard that deals with consumers;
- indicators that deal with learning and growth of staff;
- indicators that deal with business processes.

In methodology suggested by us 4 key perspectives are taken: finances, consumers, business processes and learning and growth of staff. Each perspective is defined by corresponding indicators (Fig. 1).

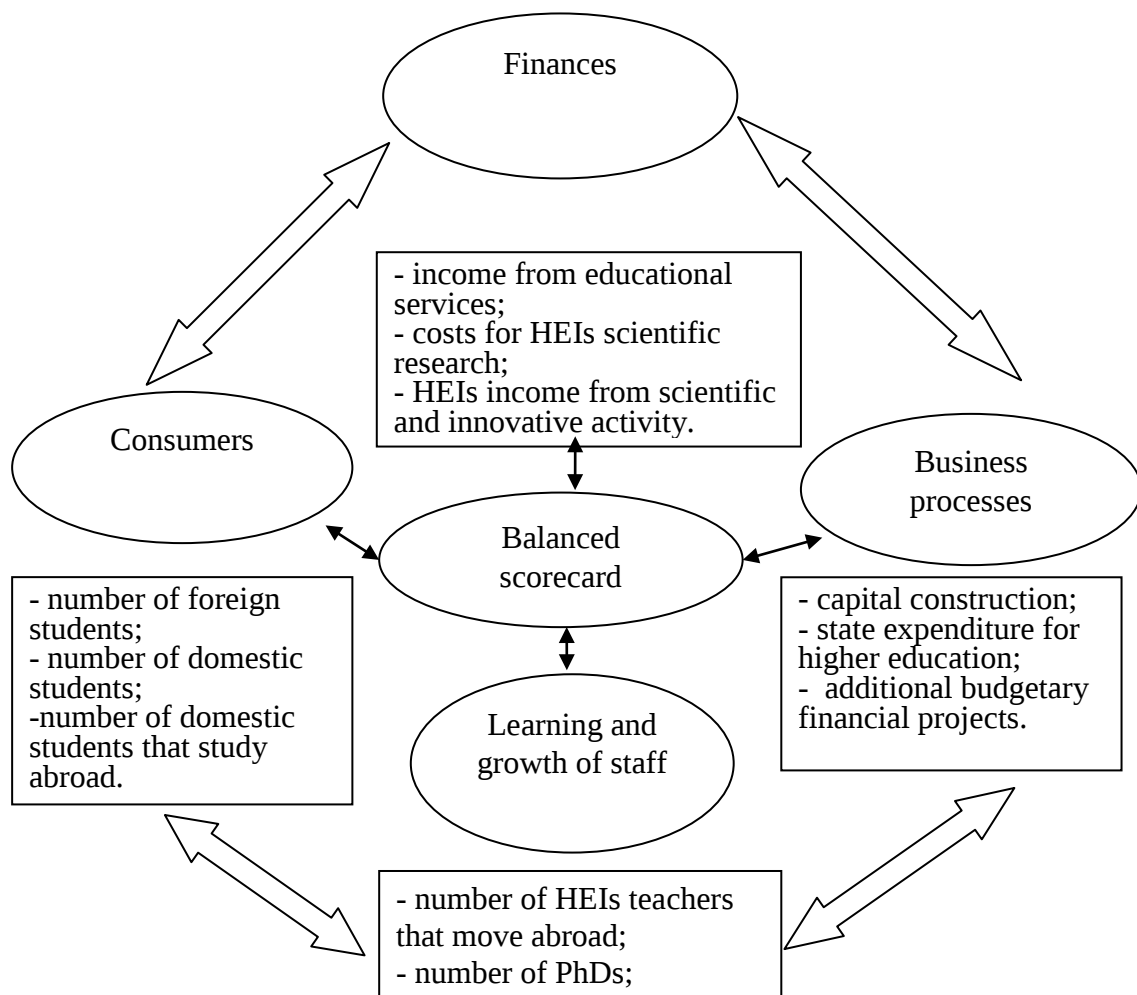


Figure 1. **The model of evaluating the educational services market based on the balanced scorecard**

We suggest including 3 indicators to financial perspective:

- income from rendered services at the educational services market;
- costs for scientific research of HEIs;
- HEIs income from scientific and innovative activity.

Income from educational services means HEI income obtained from providing paid services at the educational services market. Paid educational services include fees for pre-university training, basic training programs (tuition contracts with individuals or entities, fees for obtaining the second higher education), additional programs of vocational education (improving qualification) and programs of postgraduate vocational education (getting the second higher education, postgraduate tuition contracts with individuals, etc.) (Gryshchenko [3]).

Data on the income from educational services are presented at Table 1 [9; 10; 11; 12; 13].

*Table 1*

**Income from rendered services at the educational services markets of Ukraine and China**

| Year | Income from rendered services at the educational services market in Ukraine (million US dollars) | Income from rendered services at the educational services market in China (billion US dollars) |
|------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 2004 | 347,17                                                                                           | 16,28                                                                                          |
| 2005 | 384,24                                                                                           | 18,78                                                                                          |
| 2006 | 398,91                                                                                           | 19,90                                                                                          |
| 2007 | 539,76                                                                                           | 29,19                                                                                          |
| 2008 | 413,49                                                                                           | 34,55                                                                                          |
| 2009 | 393,54                                                                                           | 36,99                                                                                          |
| 2010 | 423,76                                                                                           | 39,89                                                                                          |
| 2011 | 435,06                                                                                           | 42,97                                                                                          |
| 2012 | 418,29                                                                                           | 44,51                                                                                          |

*Compiled by the author on the basis of statistical data of Ukraine and China*

It is worth mentioning that the peculiarity of higher education in China is the low part of centralized budget financing. By economists' estimations, 53% of HEIs costs are covered by budget, the other 47% by implementing educational services (China Statistical Yearbook 2012, 2013). From the one side, that makes higher education institutions aim at the real needs of the market and take into consideration the requests of employees. From the other side, that makes HEIs strive for income maximization as well as save capital costs.

According to statistical data, in Ukraine 55% of higher education financing are covered by providing paid educational services, the other 45% - by state financing (Ukraine Statistical Yearbook 2012, 2013).

Costs for HEIs scientific research are state expenditures for scientific and research activity at higher education institutions.

In China universities are centers of national science. Each university must support high level of scientific and innovative activity; otherwise its status will be questioned.

Chinese universities have founded about 230 technology parks and techno polis, where extensive research and innovative projects are carried out with real budget or private financing (Education in China, Internet resource).

Data on the state costs for scientific research in Ukraine and China are presented at Table 2 [9; 10; 11; 12; 13].

Table 2

**State costs for scientific research in Ukraine and China**

| Year | State costs for scientific research in Ukraine (million US dollars) | State costs for scientific research in China (billion US dollars) |
|------|---------------------------------------------------------------------|-------------------------------------------------------------------|
| 2004 | 273,49                                                              | 22,29                                                             |
| 2005 | 338,85                                                              | 29,63                                                             |
| 2006 | 399,49                                                              | 38,50                                                             |
| 2007 | 557,50                                                              | 50,82                                                             |
| 2008 | 553,01                                                              | 67,88                                                             |
| 2009 | 426,42                                                              | 85,32                                                             |
| 2010 | 465,36                                                              | 107,01                                                            |
| 2011 | 483,07                                                              | 137,89                                                            |
| 2012 | 589,37                                                              | 162,54                                                            |

*Compiled by the author on the basis of statistical data of Ukraine and China*

The indicator of income from scientific and innovative activity features income of HEIs from carrying out scientific and innovative activity.

Data on the income from scientific and innovative activity at the educational services markets of Ukraine and China are presented at Table 3 [9; 10; 11; 12; 13].

Table 3

**Income from scientific and innovative activity**

| Year | Ukraine HEIs income from scientific and innovative activity (100 million US dollars) | China HEIs income from scientific and innovative activity (100 billion US dollars) |
|------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 2004 | 5,38                                                                                 | 9,66                                                                               |
| 2005 | 5,64                                                                                 | 9,74                                                                               |
| 2006 | 7,28                                                                                 | 10,39                                                                              |
| 2007 | 10,11                                                                                | 11,17                                                                              |
| 2008 | 8,56                                                                                 | 12,02                                                                              |
| 2009 | 5,32                                                                                 | 12,05                                                                              |
| 2010 | 5,80                                                                                 | 12,45                                                                              |
| 2011 | 7,43                                                                                 | 13,06                                                                              |
| 2012 | 6,43                                                                                 | 13,10                                                                              |

*Compiled by the author on the basis of statistical data of Ukraine and China*

Basing on the compiled statistical data we are able to build the dynamics of indicators “Finances” at the educational services markets of Ukraine and China (Fig. 2, 3) [9; 10; 11; 12; 13].

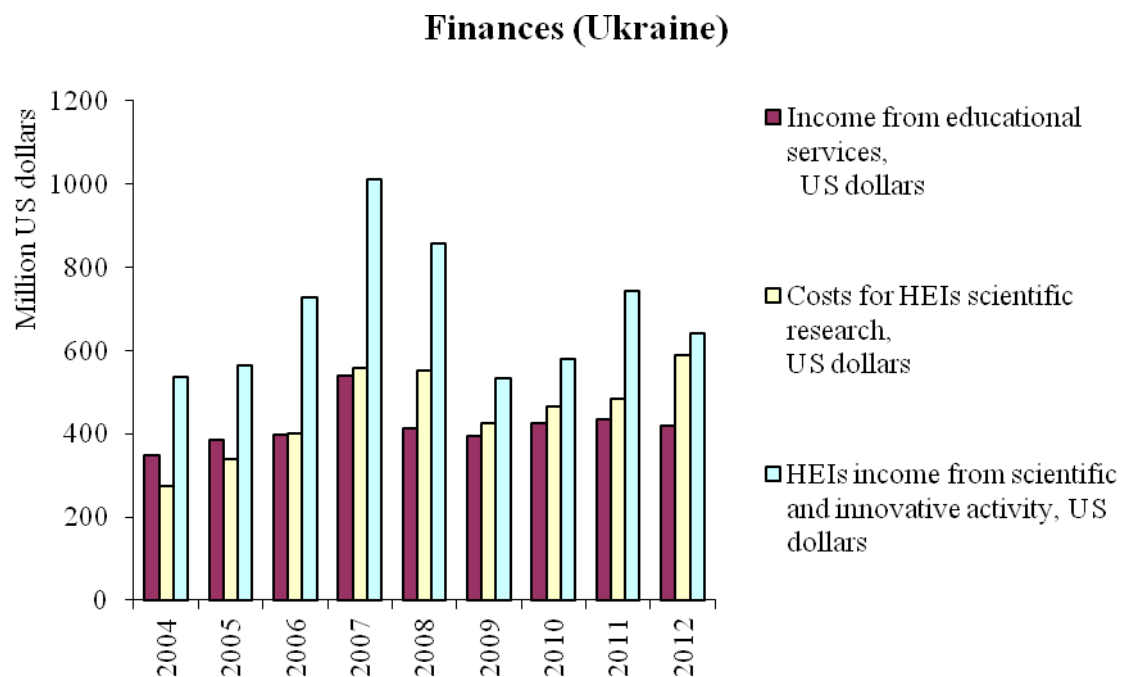


Figure 2. Dynamics of the main indicators of perspective “Finance” at the educational services market of Ukraine

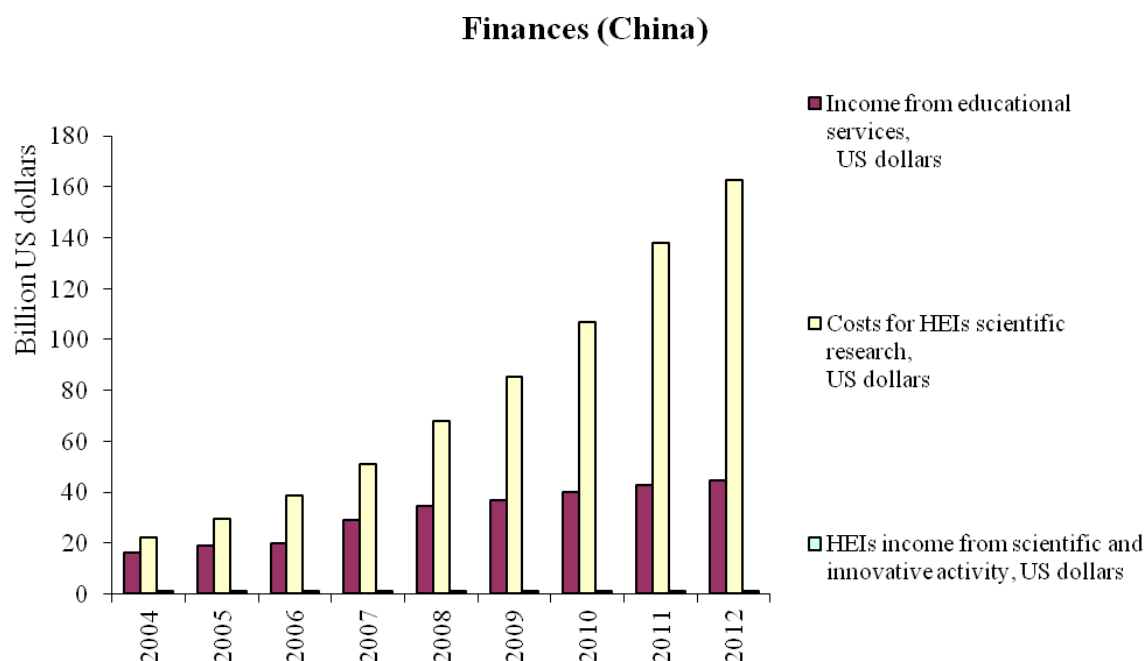


Figure 3. Dynamics of the main indicators of perspective “Finance” at the educational services market of China

It is expedient to refer the following indicators to perspective “Consumers”:

- number of foreign students;
- number of domestic students;
- number of domestic students that study abroad.

These indicators evaluate the part of a higher education institution at the educational services market; show its level of popularity among domestic and foreign consumers.

The separate direction of Chinese higher education development is admission of foreign students. About 450 higher education institutions in China have a right to admit foreign citizens. Today citizens of more than 180 countries of the world (including the USA, Canada, Great Britain, Australia, Russia, EU countries) study in China. Chinese authorities carry out very active policy of involving foreign students. In 2012 more than 160 thousand students from 180 countries studied at Chinese higher education institutions. It is expected that in 2020 number of foreign students in China will reach 500 thousand people (China Statistical Yearbook, 2012, 2013; Education in China, Internet resource).

Data on the number of foreign students at HEIs of Ukraine and China are presented in Table 4 [9; 10; 11; 12; 13].

*Table 4*

**Number of foreign students at HEIs of Ukraine and China**

| Year | Number of foreign student in Ukraine (thousand people) | Number of foreign students in China (thousand people) |
|------|--------------------------------------------------------|-------------------------------------------------------|
| 2004 | 32,12                                                  | 131,00                                                |
| 2005 | 35,78                                                  | 132,49                                                |
| 2006 | 37,40                                                  | 133,24                                                |
| 2007 | 39,68                                                  | 135,16                                                |
| 2008 | 42,78                                                  | 138,98                                                |
| 2009 | 44,08                                                  | 140,58                                                |
| 2010 | 38,2                                                   | 145,50                                                |
| 2011 | 43,00                                                  | 147,55                                                |
| 2012 | 49,00                                                  | 160,29                                                |

*Compiled by the author on the basis of statistical data of Ukraine and China*

Not taking into consideration the growth of absolute indicators regarding number of domestic students, the contingent of students in China regarding its population is relatively not high. That supports the prestige of higher education, promotes the high contest (for some specialties – 200 people for a place) (Educational Statistics Yearbook of China 2012, 2013), enables to choose the best applicants.

Data on the number of domestic students at HEIs of Ukraine and China are presented at Table 5 [9; 10; 11; 12; 13].

*Table 5*

**Number of domestic students in HEIs of Ukraine and China**

| Year | Number of domestic students in Ukraine<br>(million people) | Number of domestic students in China (million people) |
|------|------------------------------------------------------------|-------------------------------------------------------|
| 2004 | 1,99                                                       | 13,36                                                 |
| 2005 | 2,17                                                       | 15,62                                                 |
| 2006 | 2,28                                                       | 17,39                                                 |
| 2007 | 2,33                                                       | 18,85                                                 |
| 2008 | 2,32                                                       | 20,21                                                 |
| 2009 | 2,20                                                       | 21,45                                                 |
| 2010 | 2,09                                                       | 22,32                                                 |
| 2011 | 1,91                                                       | 23,09                                                 |
| 2012 | 1,78                                                       | 23,91                                                 |

*Compiled by the author on the basis of statistical data of Ukraine and China*

In their turn, Chinese students study at higher education institutions of 100 countries of the world. For many years China has been the world leader for number of students who study abroad. Annually the number of foreign students studying in China is increasing (Educational Statistics Yearbook of China 2012, 2013).

Data on the number of Ukrainians and Chinese that study abroad are presented at Table 6 [9; 10; 11; 12; 13]

*Table 6*

**Number of Ukrainians and Chinese that study abroad**

| Year | Number of Ukrainians that study abroad<br>(thousand people) | Number of Chinese that study abroad<br>(thousand people) |
|------|-------------------------------------------------------------|----------------------------------------------------------|
| 2004 | 18,378                                                      | 114,68                                                   |
| 2005 | 20,939                                                      | 118,52                                                   |
| 2006 | 22,100                                                      | 134                                                      |
| 2007 | 24,600                                                      | 144                                                      |
| 2008 | 26,036                                                      | 179,8                                                    |
| 2009 | 28,081                                                      | 229,3                                                    |
| 2010 | 31,249                                                      | 284,7                                                    |
| 2011 | 33,500                                                      | 315,6                                                    |
| 2012 | 37,102                                                      | 378,92                                                   |

*Compiled by the author on the basis of statistical data of Ukraine and China*

Basing on the compiled statistical data we are able to build the dynamics of indicators “Consumers” at the educational services markets of Ukraine and China (Fig. 4, 5) [9; 10; 11; 12; 13].

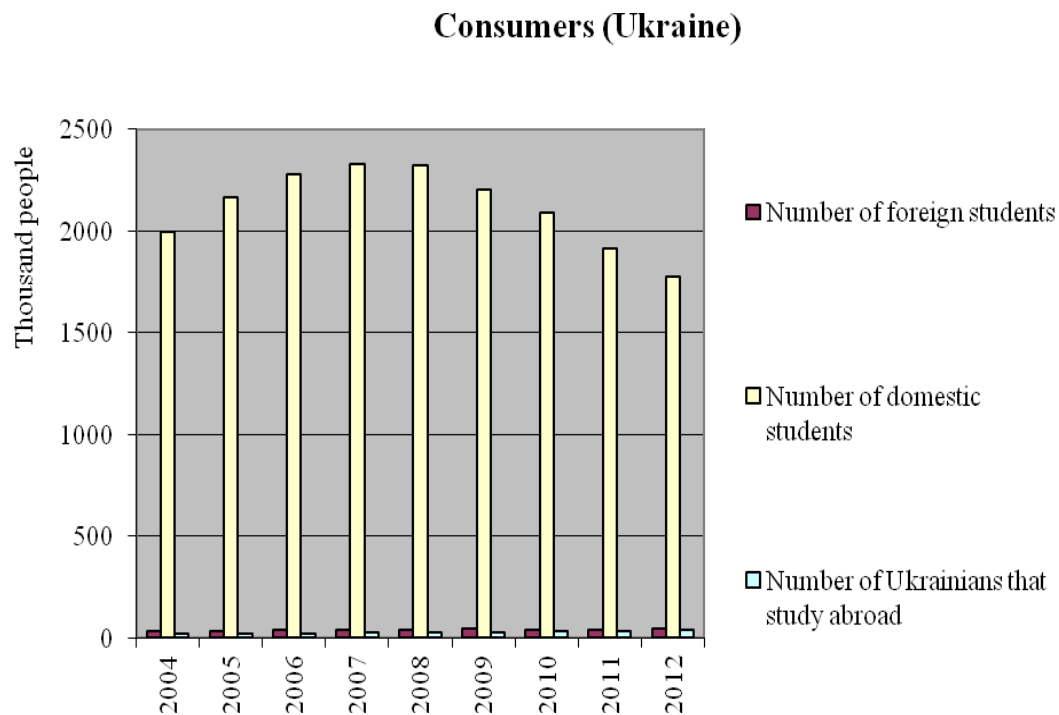


Figure 4. Dynamics of the main indicators of perspective “Consumers” at the educational services market of Ukraine

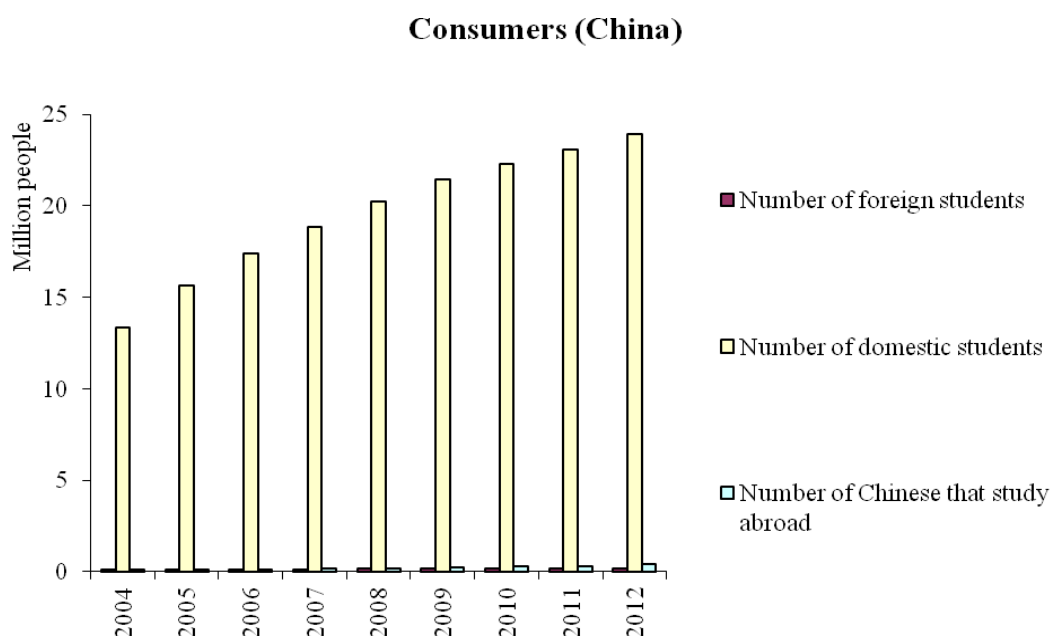


Figure 5. Dynamics of the main indicators of perspective “Consumers” at the educational services market of China

One of the state policy priorities at the educational services market is improving the quality of staff. For this reason, the important perspective of balanced scorecard is "Learning and Growth of Staff".

We suggest referring 3 indicators to the perspective "Learning and Growth of Staff":

- number of HEIs teachers that move abroad;
- number of PhDs;
- number of post-graduate students.

To our opinion, the indicators feature the state of HEI staff, its qualification and development perspectives.

Number of HEIs teachers that move abroad means candidates or doctors of sciences that temporarily move abroad in the framework of teachers exchange or internship in order to raise their qualification and acquire foreign experience.

Data on the number of HEIs teachers from Ukraine and China that move abroad are presented at Table 7 [9; 10; 11; 12; 13].

Table 7

**Number of HEIs teachers that move abroad**

| Year | Number of HEIs teachers from Ukraine that move abroad (person) | Number of HEIs teachers from China that move abroad (person) |
|------|----------------------------------------------------------------|--------------------------------------------------------------|
| 2004 | 60                                                             | 800                                                          |
| 2005 | 53                                                             | 890                                                          |
| 2006 | 58                                                             | 805                                                          |
| 2007 | 42                                                             | 817                                                          |
| 2008 | 30                                                             | 860                                                          |
| 2009 | 31                                                             | 865                                                          |
| 2010 | 35                                                             | 892                                                          |
| 2011 | 50                                                             | 901                                                          |
| 2012 | 56                                                             | 905                                                          |

*Compiled by the author on the basis of statistical data of Ukraine and China*

Data on the number of PhDs in Ukraine and China are presented at Table 8 [9; 10; 11; 12; 13].

Table 8

**Number of PhDs in Ukraine and China**

| Year | Number of PhDs in Ukraine (10 000 people) | Number of PhDs in China (10 000 people) |
|------|-------------------------------------------|-----------------------------------------|
| 2004 | 7,74                                      | 85,80                                   |
| 2005 | 8,03                                      | 96,60                                   |
| 2006 | 8,44                                      | 107,60                                  |
| 2007 | 8,70                                      | 116,80                                  |

*Continuation of Table 8*

|      |       |        |
|------|-------|--------|
| 2008 | 9,12  | 123,70 |
| 2009 | 9,50  | 129,50 |
| 2010 | 9,84  | 134,30 |
| 2011 | 9,99  | 134,40 |
| 2012 | 10,36 | 134,42 |

*Compiled by the author on the basis of statistical data of Ukraine and China*

Data on the number of post-graduate students in Ukraine and China are presented at Table 9 [9; 10; 11; 12; 13].

*Table 9*

**Number of post-graduate students in Ukraine and China**

| Year | Number of post-graduate students in Ukraine<br>(thousand people) | Number of post-graduate students in China<br>(thousand people) |
|------|------------------------------------------------------------------|----------------------------------------------------------------|
| 2004 | 29,68                                                            | 326,29                                                         |
| 2005 | 31,18                                                            | 364,83                                                         |
| 2006 | 32,67                                                            | 397,93                                                         |
| 2007 | 33,92                                                            | 418,61                                                         |
| 2008 | 34,82                                                            | 446,42                                                         |
| 2009 | 35,58                                                            | 510,95                                                         |
| 2010 | 36,21                                                            | 561,01                                                         |
| 2011 | 35,82                                                            | 661,22                                                         |
| 2012 | 35,45                                                            | 684,94                                                         |

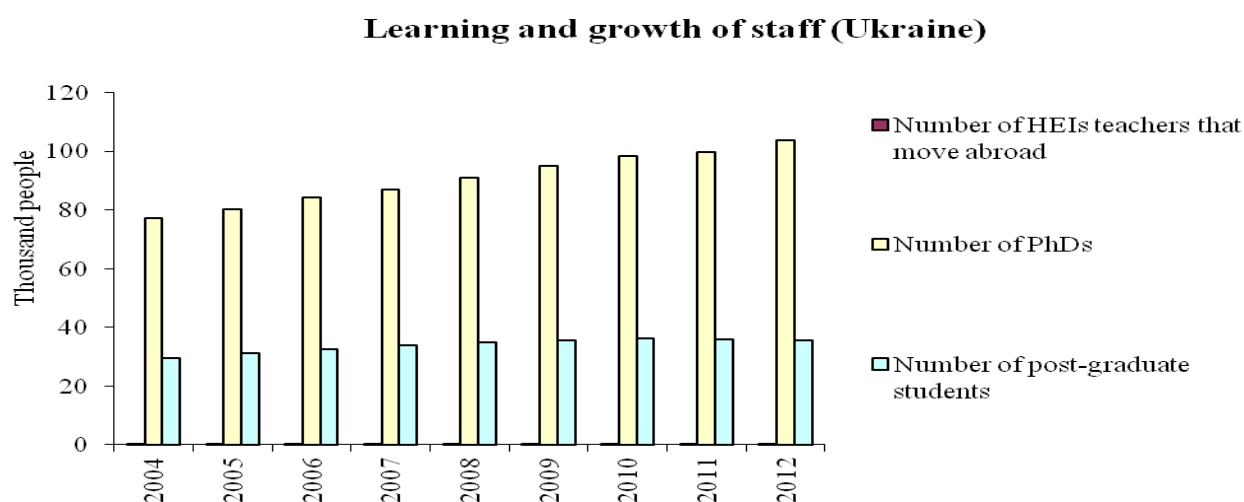
*Compiled by the author on the basis of statistical data of Ukraine and China*

Business processes of HEIs may include:

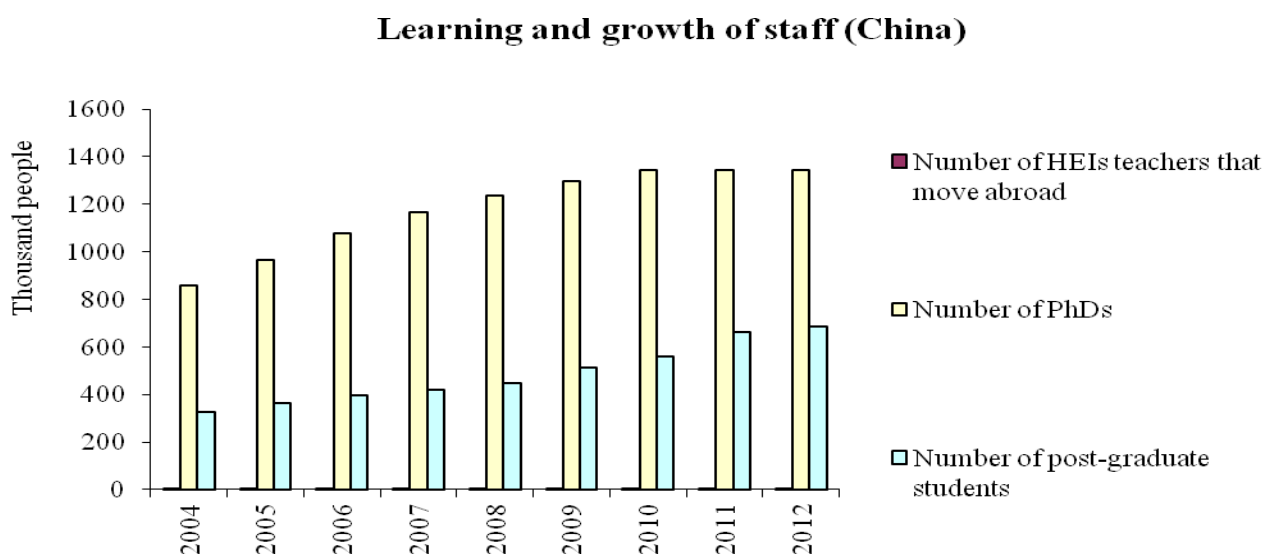
- capital construction;
- state expenditure for higher education;
- additional budgetary financial projects.

Capital construction at the educational services market includes financial investments allocated for construction and repair of HEIs buildings, purchase of equipment for tuition, scientific and research activity.

Basing on the compiled statistical data we are able to build the dynamics of indicators of perspective “Learning and growth of staff” at the educational services markets of Ukraine and China (Fig. 6, 7).



**Figure 6. Dynamics of the main indicators of perspective “Learning and growth of staff” at the educational services market of Ukraine**



**Figure 7. Dynamics of the main indicators of perspective “Learning and growth of staff” at the educational services market of China**

Data on the capital construction at the educational services markets in Ukraine and China are presented at Table 10.

*Table 10*

**Capital construction at the educational services markets  
in Ukraine and China**

| Year | Education capital construction<br>in Ukraine (million US dollars) | Education capital construction<br>in China (billion US dollars) |
|------|-------------------------------------------------------------------|-----------------------------------------------------------------|
| 2004 | 179,81                                                            | 7,52                                                            |
| 2005 | 172,28                                                            | 7,61                                                            |
| 2006 | 230,5                                                             | 8,19                                                            |
| 2007 | 326,93                                                            | 8,70                                                            |
| 2008 | 328,43                                                            | 9,62                                                            |
| 2009 | 186,20                                                            | 9,92                                                            |
| 2010 | 241,21                                                            | 10,66                                                           |
| 2011 | 273,47                                                            | 11,89                                                           |
| 2012 | 186,73                                                            | 12,79                                                           |

*Compiled by the author on the basis of statistical data of Ukraine and China*

Additional budgetary financial projects mean state financial resources given for special development programs in order to raise competitiveness at the national and international levels.

In 1993 the national aim program was approved in China which stipulated modernizing the higher education system and reaching the international standards. There has been chosen 100 leading universities which should join the list of 500 best world universities (according to ARWU ranking). The program budget is 20 billion US dollars.

During the first phase of the program there has been chosen 10 universities of so-called “elite group” which began the transformations (the main mechanism – financial grants for implementing specific projects). In 1994 the list was added with 36 higher education institutions. Later some universities left the program having implemented the projects. At the beginning of 2013 the program included 23 Chinese universities.

The leading universities include Peking University, Tsinghua University, Fudan University. Other well-known in the world universities include Shanghai Jiao Tong University, University of Science and Technology of China, Nanjing University, Zhejiang University, Beijing Normal University and others (Jianmin Gu, Xueping Li, Lihua Wang [13]).

Table 11

**Additional budgetary financial projects for HEIs of Ukraine and China**

| Year | Additional budgetary financial projects for HEIs in Ukraine (million US dollars) | Additional budgetary financial projects for HEIs in China (billion US dollars) |
|------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 2004 | 1,42                                                                             | 2,20                                                                           |
| 2005 | 1,49                                                                             | 2,20                                                                           |
| 2006 | 1,58                                                                             | 2,20                                                                           |
| 2007 | 1,58                                                                             | 5,80                                                                           |
| 2008 | 1,98                                                                             | 5,80                                                                           |
| 2009 | 1,25                                                                             | 5,80                                                                           |
| 2010 | 1,51                                                                             | 6,30                                                                           |
| 2011 | 1,75                                                                             | 6,30                                                                           |
| 2012 | 1,81                                                                             | 6,30                                                                           |

*Compiled by the author on the basis of statistical data of Ukraine and China*

State expenditures for higher education are financial resources allocated by state in order to cover some HEIs operating costs: salary, scholarship and partially utilities.

In the framework of state policy implementation there is financing of higher education activities as well as some programs and projects (both state and private HEIs).

In China the GDP part of state expenditure for education is rather low - 3% (in Ukraine - 7%, in EU countries - 4,5-7%) and the GDP part of state expenditure for higher education - 0,7% (China Statistical Yearbook, 2012). But the amount of higher education financial resources is annually growing.

The higher education budget consists of 2 parts: operating costs and capital construction. Appropriations for “capital construction” reach 50% of the total costs and are allocated for construction and repair of institutions, equipment purchase and implementing new education technologies.

The important problem of higher education development is financing limit. From the one side, the significant funds from centralized budget are allocated to education. From the other side, these funds are not enough taking into consideration the ambitions of Chinese authorities to make Chinese universities the world leading higher education institutions. The most of Chinese technological HEIs do not possess modern scientific equipment which is expensive.

Basing on the compiled statistical data we are able to build the dynamics of indicators of the perspective “Business processes” at the educational services markets of Ukraine and China (Fig. 8, 9) [9; 10; 11; 12; 13].

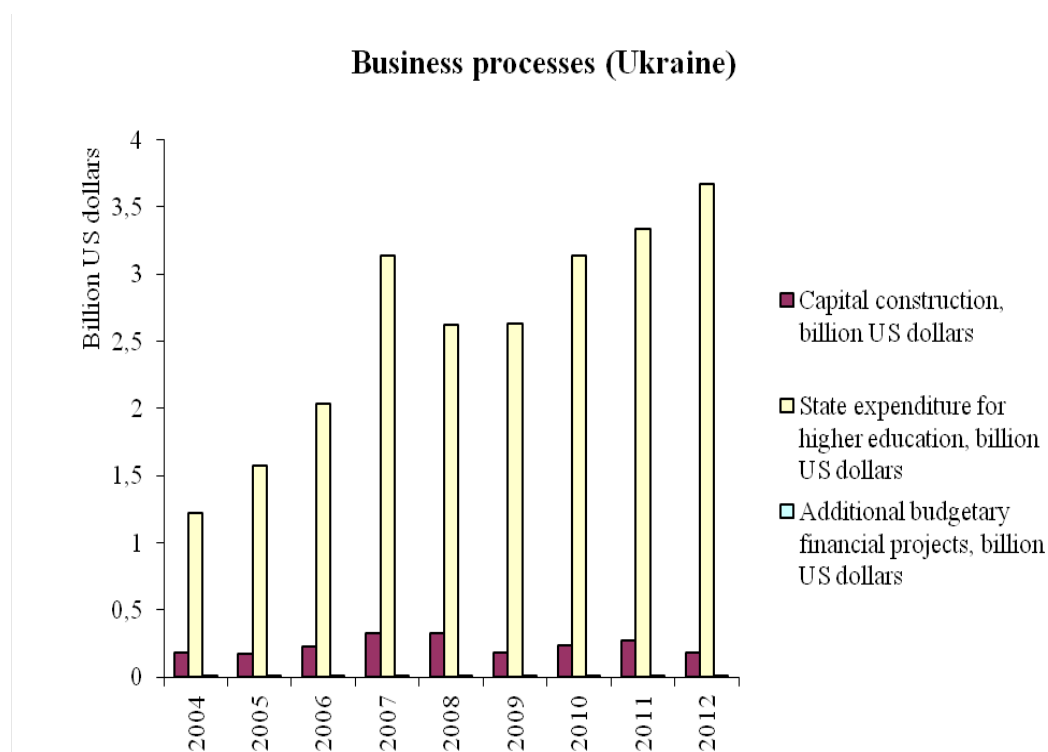


Figure 8. Dynamics of the main indicators of perspective “Business processes” at the educational services market of Ukraine

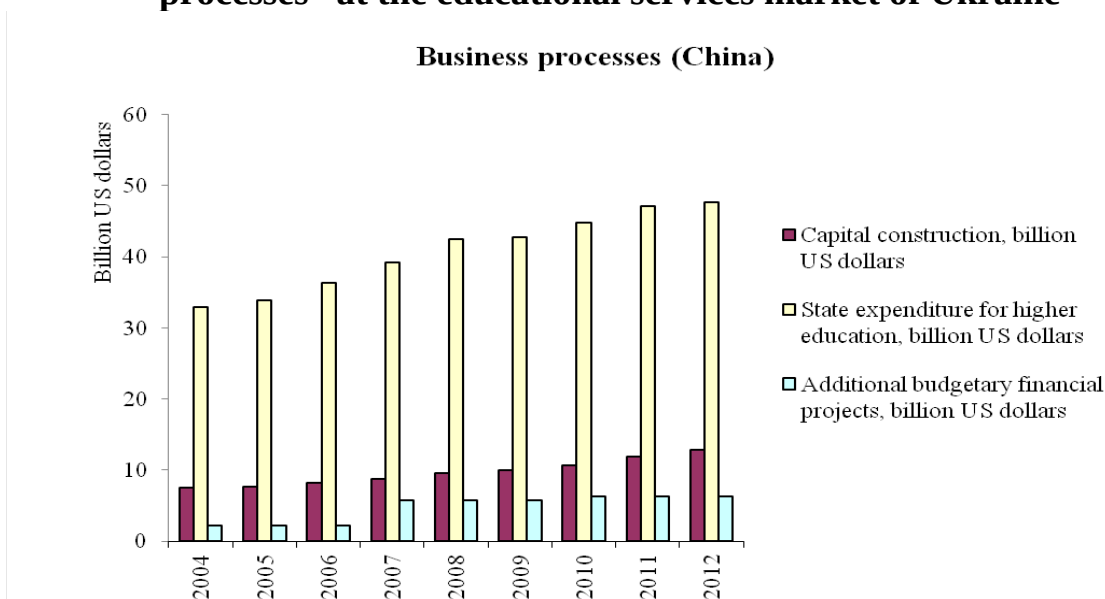


Figure 9. Dynamics of the main indicators of perspective “Business processes” at the educational services market of China

Data on the state expenditure for higher education in Ukraine and China are presented at Table 12 [9; 10; 11; 12; 13].

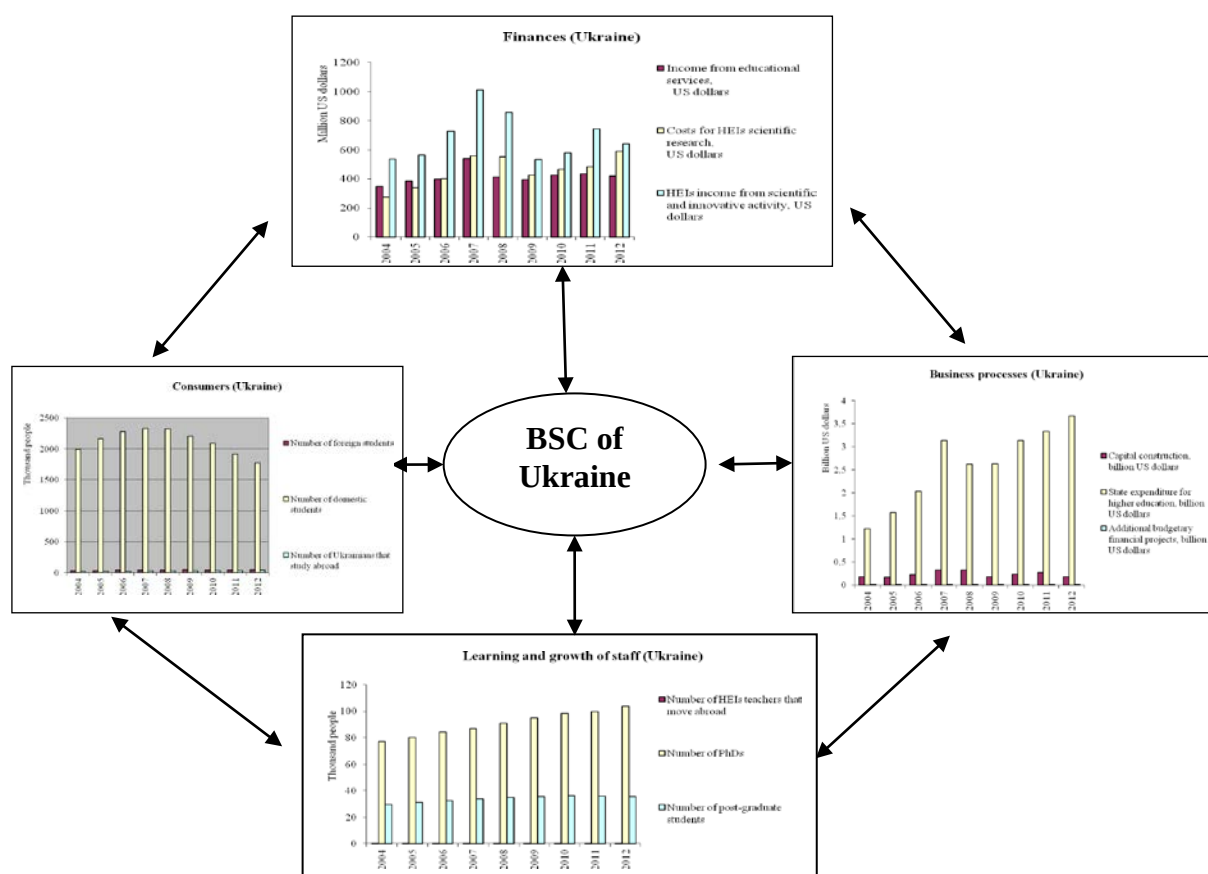
Table 12

**State expenditure for higher education in Ukraine and China**

| Year | State expenditure for higher education in Ukraine<br>(billion US dollars) | State expenditure for higher education in China<br>(billion US dollars) |
|------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 2004 | 1,22                                                                      | 32,95                                                                   |
| 2005 | 1,57                                                                      | 33,87                                                                   |
| 2006 | 2,04                                                                      | 36,32                                                                   |
| 2007 | 3,13                                                                      | 39,17                                                                   |
| 2008 | 2,62                                                                      | 42,42                                                                   |
| 2009 | 2,63                                                                      | 42,74                                                                   |
| 2010 | 3,14                                                                      | 44,77                                                                   |
| 2011 | 3,33                                                                      | 47,07                                                                   |
| 2012 | 3,67                                                                      | 47,72                                                                   |

*Compiled by the author on the basis of statistical data of Ukraine and China*

Basing on the compiled statistical data we are able to build the dynamics of the main indicators at the educational services markets of Ukraine (Fig. 10).



**Figure 10. Dynamics of the main indicators at the educational services market of Ukraine**

Based on the compiled statistical data we are able to build the dynamics of the main indicators at the educational services markets of China (Fig. 11).

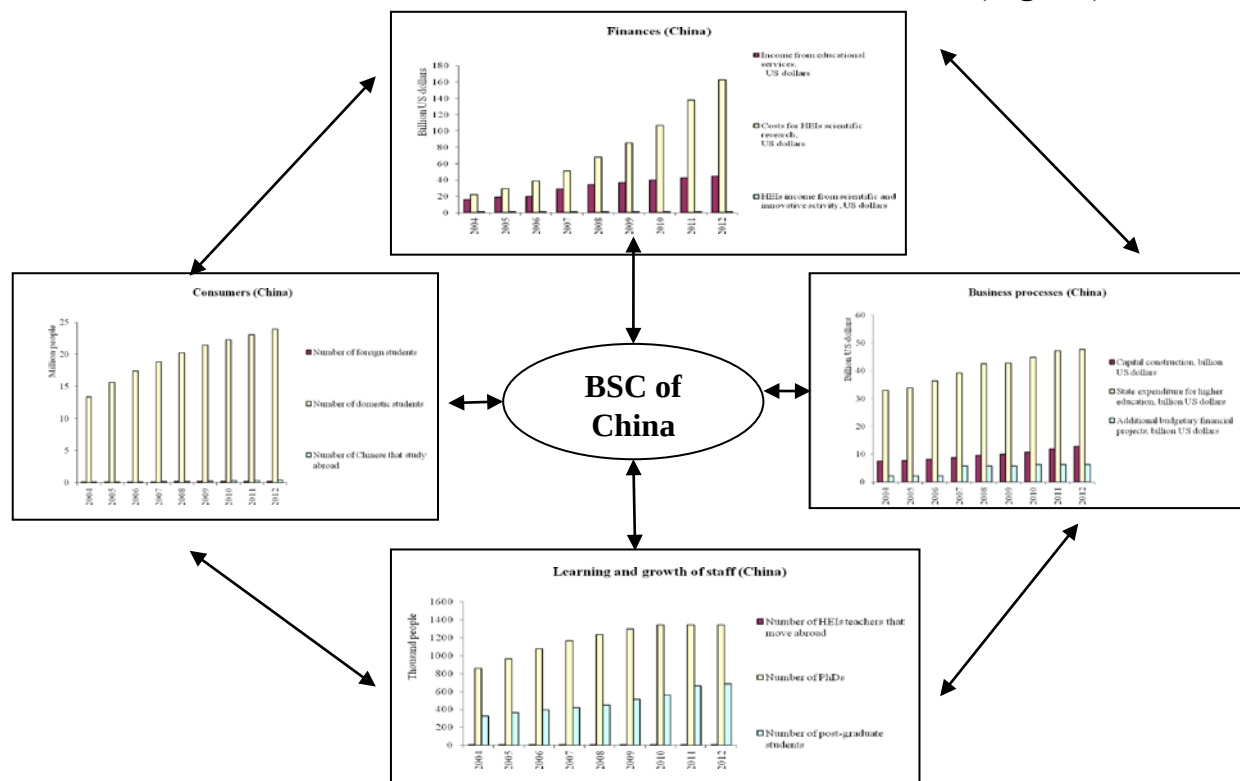


Figure 11. Dynamics of the main indicators at the educational services market of China

**Conclusions.** Used indicators are not considered to be the only indicators of the activity of educational services market which define all essential aspects of activity. But they permit to build the comparative dynamics of development of the education markets in different countries and form the mechanism of implementing the strategic aims.

Applying development indicators does not provide the background of raising the quality of educational services. The priorities of “efficiency of educational services market” should be correlated under the parity conditions with “educational services quality” monitoring all the processes, evaluating the function of each higher education institution (subsection or worker).

Under the conditions of market economy there are new opportunities for higher education institutions that promote quick reacting to the changes at the educational services market. The developed model of evaluating efficiency of educational services market based on the balanced scorecard promotes raising the competitiveness of educational services market of Ukraine at the global educational services market.

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**FUNDING FOR THE OPERATION AND  
DEVELOPMENT OF HIGHER EDUCATION IN  
UKRAINE: TRENDS, PROBLEMS AND PROSPECTS**

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**Keywords:**

higher educational system,  
management, higher  
educational institution,  
educational policy.

**ABSTRACT**

This article analyzes the process of the development of the higher education in Ukraine. Organizational, economic and financial conditions of the higher educational functioning system were defined. Suggestions for the further optimization of the higher educational system were grounded.

**Statement of a problem.** Higher education should provide the national economy with highly skilled and creative professionals who will be able to solve the challenges of the technological development. The higher education is one of the areas that provides long-term national competitiveness.

Consequently, the government should take measures to optimize organizational, economic and financial conditions of the higher educational functioning system. This explains the relevance of the study.

**Review of the literature.** With the current problems of the higher education in Ukraine appears a lot of scientific works (I. Kalenyuk [4]; T. Bogolib [1]; O. Komarova [4]; V. Lugovoy [3]; I. Grischenko [2]; V. Andrushchenko). Scientists deeply analyze the economic conditions of the higher educational development using proven scientific methods.

However, in the modern terms, which are characterized by the exhaustion of the traditional sources of the funding for the higher education institutions, organizational, economic and financial conditions of the higher education operating system has to be identified and assessed, as well as the perspectives of the strengthening the competitiveness of the universities. During the study, the following methods were used such as: logic synthesis, abstraction, induction and deduction, economic modeling, statistical analysis, peer reviews, analytical comparisons etc.

*The purpose of the article* is to present research results upon the organizational, economic and financial conditions of the higher education in Ukraine analytical evaluation.

**The main results of research.** During the years of the independence of Ukraine since 1991 the scope of the higher education has evolved faster pace that was manifested primarily in the growth of the higher education institutions and a corresponding increase in the number of students.

The specified process was a natural consequence of two factors: independence (the need for training specialists in the new institutions, which previously did not exist in Ukraine) and radical socio-economic reforms (the possibility to create private ownership institutions). In addition, in the field of the higher education began to appear institutions of I-st-II-nd accreditation levels (college, technical and vocational schools), which were the part of the secondary special education in Soviet times.

During 2000-2011 trend of the reducing the number of institutions continued. This depends on high growth rates of institutions in the previous period (until 2000), and aggravation of the competitive situation in the market of educational services, as a result unattractive institutions to consumers have to cease to exist.

Data on the number of the higher education institutions and the number of students (trainees) are presented in Table 1 [7].

Table 1

**Higher education institutions and the number of students (trainees)**

| Indicators                                                  | 1995<br>/1996 | 2000<br>/2001 | 2005<br>/2006 | 2010<br>/2011 | 2013/<br>2014 | 2014/<br>2015 |
|-------------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Number of institutions, all units                           | 1037          | 979           | 951           | 854           | 767           | 664           |
| Number of students - total, thousand                        | 1540.5        | 1930.9        | 2709.2        | 2491.3        | 1992,9        | 1689,2        |
| The average number of students in one institution, thousand | 1,48          | 1,97          | 2,84          | 2,92          | 2,60          | 2,54          |

The source of the information (Government service of statistics of Ukraine, 2015), is expected by authors.

As a result of a decrease in the number of educational institutions and the simultaneous increase in the number of students and trainees grew the average number of students in one school (from 1.48 thousand in 1995/1996 academic year to 2.92 thousand in 2010/2011 academic year). This is a positive trend because it allows concentrating the possibility on preparing students and thus accelerating the process of creating powerful universities with modern physical infrastructure (Government service of statistics of Ukraine, 2015).

Slight fluctuations in the number of the higher educational institutions with III-rd-IV-th accreditation levels were observed (from 345 in 2005/2006 to 353 in 2008/2009 academic year). At the same time significant variations in the number of students and trainees were fixed - an increase to the 2008/2009 academic year (2364.5 thousand) with some decrease in the next period (1689,2 thousand in 2014/2015 academic year).

Moreover, the reduction in the number of students and trainees is observed for all forms of learning (Government service of statistics of Ukraine, 2015). The average number of the students in a high school of III-rd-IV-th accreditation was 6.10 thousand people in 2010/2011. At the same time, the average number of students in universities in the EU-15 countries varies in the range of 14 thousand (Greece) to 23 thousand (Italy) (Recognized Analytics Education Provide, 2013).

The indicated evidence shows the feasibility of a decreasing number of higher educational institutions with III-IV accreditation levels, which is key to the further concentration of scarce resources and creating the opportunities for the formation of powerful institutions that are using modern educational technology (T. Bogolib [1]).

One of the features of higher education system is that it prepares foreigners (export of educational services). According to the State Statistics Service, in the higher educational institutions of Ukraine at the beginning of 2011 /12 studied 38,166 foreign students, including institutions of III-rd-IV-th accreditation – 37848 foreign students (Government service of statistics of Ukraine, 2013), representing 1.78% of the total student number.

Interestingly, the largest number of the foreign students doesn't study in the capital, but in the Kharkiv region (over 10 thousand), which can be explained by more high-quality work of Kharkiv universities in terms of attracting foreign customers (consumers). Leadership positions in the number of foreign students who get higher education in higher educational institutions of III-rd-IV-th accreditation levels occupy Kiev, Odessa, Lugansk, Donetsk regions.

The largest number of students in higher educational institutions of Ukraine study from the following countries: China (4.7 thousand), Turkmenistan (4.5 thousand), Russia (3.5 thousand), India (2.4 thousand), Jordan (2.2 thousand), Iran (1.2 million people) (Government service of statistics of Ukraine, 2013).

Analytical data indicate a territorial uneven distribution of higher education institutions. Most institutions are concentrated in areas with high population (Kyiv, Donetsk, Dnepropetrovsk, Kharkiv region), which is justified in terms of the orientation of educational institutions to accommodate up to potential consumers. At the same time the number of the universities in leading positions occupies Lviv and Odessa regions, which is a consequence of the acquired human and scientific potential in previous years. Industrialized regions – Kyiv, Donetsk, Dnipropetrovsk, Luhansk, Kharkiv, Odessa region keep leadership in the number of higher educational institutions of I-st-II-nd accreditation levels (technical college), which concentrate a large number of industries that use skilled labor .

During 1990 – 2012, the number of universities grew rapidly, exceeding the pace of the scientific and pedagogical workers for higher education training, including highly qualified specialists. This has led to that some schools do not meet the demand in terms of the provision with higher qualification teaching staff. This fact affects adversely the quality of teaching and reduces the research and innovation potential of the higher education.

One of the negative factors that hinders the human resources development of the higher education is insignificant (lack of) wages of teaching staff, low level of social security and low prestige of teaching work (Greece and etc, 2006).

One of the defects of higher education in Ukraine is the orientation of higher education to meet the needs of consumers who want to receive the so-called "fashion" or "rating" specialty (economist, lawyer, manager, psychologist, etc.). Great part of higher education institutions prepare non-core professionals, not having the proper personnel, scientific and methodological support [8].

According to specialists of the Institute of Higher Education NAPS of Ukraine, our country is at least 2.5 times remains behind with the share of graduates, while the surplus trains specialists in social sciences, business and law (41%) (V. Lugovoi [3]).

One of the economic factors that hinder the transition of the higher education innovation development model is the lack of funding. Because of several factors: general economic crisis, demographic trends, the lack of sufficient competitive educational products, weak mechanisms of interaction of educational institutions and employers, foreign partners and international organizations, etc. (D. Kucherenko [9]).

Higher education financing is uneven. After the growth in absolute volume of the consolidated budget for the financing of education and higher education in 2005-2009, because of government revenue and expenditure increase, in 2010 funding for education and higher education decreased, which was due to the rapid drop in income and expenditure budgets of different levels as a result of the financial crisis (S. Gala [8]). Financing of education in general and higher education in particular from the budget is presented in Table 2 [7; 10].

Significantly, in 2009, the worst period of the crisis, the total expenditures of the consolidated budget decreased, while expenditures on education and higher education increased. This shows the efforts of the Government of Ukraine to make adequate funding for educational activities in accordance with the commitments on priority principles (I. Grischenko [2]).

Table 2

**Education and higher education financing  
at the expense of the consolidated budget, mln.hrn**

| Indicators                              | 2000    | 2005     | 2010     | 2012     | 2014     |
|-----------------------------------------|---------|----------|----------|----------|----------|
| Expenditures of the consolidated budget | 48148.6 | 141989.5 | 377842.8 | 492454.7 | 364087.7 |
| Including: education                    | 7085.5  | 26801.8  | 79826.0  | 101560.9 | 71767.9  |
| Including: higher education             | 2285.5  | 7934.1   | 24998.4  | 29335.9  | 20483.0  |

The source of information (Government service of statistics of Ukraine, 2015), is expected by authors.

The level of the budgetary financing of higher education relative to GDP and total expenditure during 2008-2010 compared to 2000-2007 has increased slightly. For example, in 2000-2007, the expenditure on higher education amounted to 1.3 - 1.8% of GDP and 4.7 - 5.7% of total expenditure, in 2008-2010, these figures increased to 2.0 - 2.3% of GDP and 6.0 - 6.8% of budget expenditures (Government service of statistics of Ukraine, 2015). Table 3 presents the calculated and analytical indicators on higher education funding in Ukraine [7; 10].

Table 3

**Analysis of higher education financing  
at the expense of the consolidated budget, mln.hrn**

| Indexes                                 | 2000 | 2005 | 2010 | 2012 | 2014 |
|-----------------------------------------|------|------|------|------|------|
| Spending on higher education:- % of GDP | 1.3  | 1.8  | 2.2  | 2.1  | 2.0  |
| % of total expenditure                  | 4.7  | 5.7  | 6.5  | 5.9  | 5.6  |
| % of total education expenditures       | 32.3 | 29.6 | 30.7 | 28.9 | 28.5 |

The source of information (Government service of statistics of Ukraine, 2012), is expected by authors.

Significantly, in 2010 the financial ratios of higher education from the budget slightly decreased, which was a natural phenomenon of substantial limitations on many budget programs, including in higher education due to the need to carry out expenditure to finance the protected items.

From these data it appears that during 2008-2014, continued downward trend in the number of students in higher education, including in the context of available funding sources (other than local budgets). This is explained by demographic problems (rapid decrease in the number of young people, born in the first half of 1990) and the lack of financial resources as a result of economic crisis (S. Zakharin [11]).

In the higher education the amount of the allocated budget goes to salaries and charging for it, as well as scholarships. Social expenditure is mainly financed ("wasting paper"). At the same time investment costs for new construction, new educational technologies, purchase of teaching equipment, carry out advanced research ("development") almost are not financed. One of the main reasons for this troubled situation in Ukraine is a large number of higher education institutions and their extra-structural units. Experts have repeatedly pointed to the excessive expansion of higher education in Ukraine, which produces "useless" experts to society and market. Paradoxically, the licensed number of enrollment in 2012 for undergraduate programs amounted to 1.2 million people, twice exceeded the number of people who have finished secondary school. The state order for training specialists in higher educational institutions of different ownerships is held transparently, without regard to the quality of educational services.

Higher education in Ukraine cannot demonstrate the high quality of international origin system that is proved in particular by the independent ranking of higher education institutions, carried out regularly by influential international organizations (O. Komarova [5]).

Special feature of higher education in Ukraine as an economic activity is the presence of educational institutions (universities) of state and municipal ownership in the market area, which simultaneously serve as public institutions (that receive funds from the budgets of different levels for the production of public goods), and as entities of economic activities (focused on achieving management positive results by developing educational services and its sales in a competitive market).

The basic challenges, which face the higher education system of Ukraine were distinguished with regard to the need of systematic transformations in this area, namely: the need for refusal of old teaching methods; overcoming the isolation of Ukrainian higher educational achievements in the world science and real market needs, strengthening the skills of the staff members, retraining those who have no computer skills, interactive teaching methods, and foreign languages (special attention is needed to coaches of retirement age, representing more than 28% of the universities staff in Ukraine); ensuring the educational infrastructure development; improving the quality of educational services, the adaptation of higher education in Ukraine to demographic challenges (i.e., to reduce the number and to change the age of students); achieving a balance between the educational services market and the needs of a dynamic labor market development in Ukraine (taking into account the trends of internal and external migration).

Orientation of higher education on the target (professional) employment of young specialists; the need for use of continuing education ("education for life") in Ukraine, which is consistent with the objective of building an innovative society, the formation of "knowledge economy", etc.

**Conclusions.** As a result of this research we can draw the following conclusions and generalizations:

State policy of higher education development should be clearly defined by law and provided with adequate financial resources (budget and off-budget). The specified policy must be designed to support scientific research capacity of higher education institutions and to preserve the best university traditions and ensure the training of qualified personnel.

It is extremely important for the education market development to determine the needs of the labor market and the formation of the state order for training in terms of specialties and levels of education. However, this task is complicated by the lack of actual research and relevant forecasts for medium- and long-term demand for professionals.

Increased funding for higher education is necessary, but not sufficient condition for receiving high-quality educational services, and thus a high level of graduates' competitiveness of higher education institutions. It is necessary to carry out a number of fundamental structural and organizational, financial and economic events and change management techniques.

It is necessary to restore proper competitive level of teaching staff salaries.

Financial resources should be concentrated in higher education by reducing the number of higher education institutions and their consolidation. This is important in terms of improving the quality of education and its role in ensuring the development and competitiveness of Ukraine on world markets.

It is reasonable to hold the "inventory" of existing universities and reduce the number of licensed training. One of the main criteria for issuing licenses for educational activity should take into account the profile of higher education.

It is necessary to clearly define the basic concepts of higher education as an economic activity, including the term "educational service", "educational product", "educational services market" and others. The guidelines for determining the cost of educational services provided by universities should be developed. Effective models of public-private partnerships should be established in the area of training process financing.

**Prospects for further researches.** In the future, the research should be done on the developing econometric models that enable you to predict the economic characteristics of higher education.

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## MODERN CONCEPT OF SERVICE MANAGEMENT

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### Keywords:

*customer-oriented,  
customer, needs, customer  
value, loyalty, customer  
experience, service  
management.*

### ABSTRACT

The article deals with the essence of customer focus as a new approach to company service management that caused a shift in the service management paradigm. The scientific novelty is the author's definition of "client-oriented" in the context of the service management modern concept. The practical value is presented by generated advantages of client-oriented approach implementation into company service management, conditions and primary actions of the transfer to the new management model.

**Statement of a problem.** The globalization of markets and the information revolution, the liberalization of the world economy, the development of mobile technologies and information networks have provided manufacturers by cheap personalized channels of communication with consumers. Simultaneously, consumers have the opportunity to access virtually any information at any convenient time. In many areas there are conditions, similar to the perfect competition model, customer loyalty has become more important. Increased competition led to lower product prices, rising cost of attracting customers and, consequently, a sharp decline in the customers profitability. The main possibility of preserving profitability for many firms is to increase the intensity of their products usage by each customer that led to the necessity to maintain long-term relationships with them [1].

Thus, the company management has to re-focus again on creating a new management paradigm. At the time of goods-oriented management where key objects were technology and product quality, management crossed over to marketing, and competitors took the focus at that time and rapid promotion tools as well as selling the goods. However, nowadays public production and marketing techniques can no longer provide the company with long-term leadership, they are necessary, but they are no longer enough. Now it is important not just to create a product and find customers necessary for business, but also to orient business on strengthening cooperation with the most valuable of them.

**Literature overview.** The numerous works mainly by foreign and sometimes by native authors are dedicated to the issue of client-oriented company. These include the works of theorists and practitioners in the field of management and marketing such as V. Busarkina, M. Vasha, T. Hoky, M. Johnson, B. Kobzeva, A. Kulinich, P. Losev, A. Novikova, F. Newell, I. Patlakh, B. Ryzhkovsky, R. Rudnev, M. Fuzyeyeva, K. Kharsky, A. Herrmann, P. Cherkashin, A. Yurchak.

The approaches to the definition of this concept are very different. Despite of its popularity, the client-oriented concept has no sustained scientific definition. Mostly scientists liken this concept to the business strategy, management tools, service philosophy or culture etc.

So in specialized forums and websites you can see the definition of client-oriented concept as a strategic approach to the organization development, which enhances its competitiveness and profitability growth, implying mobilization of all its resources to identify, attract and retain customers, including most profitable of them, improving the quality of customer service and meeting their needs [2]. Whereas A. Novikov determines the client-oriented concept as the business characteristics, that reflects the client interests in the system of owners and management priorities [3].

From the standpoint of management tools B Ryzhkovsky gives his own definition of the concept as a tool for customer relationship management, aimed at obtaining sustainable profits in the long run and based on three criteria: a key competence, target customers and equity positions [4]. The core competence is defined as the ability of the company to achieve certain results more efficiently. It should be lengthy, leader conscious and timely used (staff should be able to repeat their successful action). Target customers mean a limited number of customers or customer groups, prioritized for the company in the long run. Positions equity (partnership) shows the relationship between the supplier and the customer in which there is no dominance (deliberate or accidental) by one of the parties at any stage of the relationship.

By using this tool the company can earn additional revenue by understanding and meeting customer needs effectively. But it should be just extra profit (tangible or intangible), otherwise, any shift of attention towards the client, including quality service, can also be considered as a client-oriented approach [5].

K. Kharsky gives exactly different from the other point of view to determine the client-oriented company. The author proposes to define the essence of the concept as an assessment of the client visible part of the company, that's what customers really think about us. No matter what the company thinks about its own client-oriented approach, if the client believes that there is none. To understand the level of client-oriented approach it is necessary to know the clients' opinion, according to the author [6].

So nowadays, the shift of the production process and quality of the goods (services) to the efforts of meeting the needs of the consumer, the replacement of product / market-oriented approach by a client-oriented strategy, the development of efficient algorithms for client relations are in great demand.

**The main results of research.** Companies want to make people more likely to buy their products and services, and therefore spend millions trying to understand consumers and get them to spend more. But today it is not enough to track just common indicators - and the satisfaction level and the level of consumers churn. To keep valuable customers is becoming more and more difficult, although the cost of various programs of increasing loyalty are constantly growing. And this trend is evident in almost all sectors [7].

The essence of client-oriented enterprise can be expressed in terms of the characteristics of this approach [1; 8]

1. A thorough understanding of their customers. It is implied the existence of a process developed segmentation and targeting (marketing mechanism which allows extracting a target audience meeting specified criteria). Understanding means having the processes of obtaining regular feedback and setting up a permanent dialogue that leads to developing long term relationships, measuring satisfaction and loyalty.

2. Customer retention approach. Since the increase in market share and attraction of new customers is more expensive, more profitable businesses exploit the potential of existing customer base and provide sales growth by increasing the intensity of consumption of its products existing customers.

3. Individual communication with customers. To account the personal needs of each customer and the formation of more product value it is necessary to provide personal interactivity between the customer and the company. With the development of information technology solutions to this problem has become possible.

4. Cooperation based on relationships rather than on the product. The basis for the conservation and development of cooperation between the company and its clients are relationships that are formed as a result of service. Loyal consumers began to perceive the company as a carrier of an idea (brand), with a special value for them.

5. Client experience management. Consumer value as an offer, a service or relationship is neither a panacea nor something fixed once and for all. It is always in dynamic and subject to external and internal negative impact. Only when measuring customer experience at various points of contact with the enterprise at different stages and in different channels of interaction you can be sure that the customer really gets the best experience.

The formation of client-oriented approach led to the necessity of developing technologies retention with regard to their value for the company and led to expansion of the complex management functions directed to customer relationship management.

The whole world experience managing relationships with clients that use different enterprises is assembled in a complex multi-level system called CRM (Customer Relations Management). According to F. Newell, CRM - a change from a product-oriented strategy, to the strategy focused on positive experiences, to create values that make life easier for customers [9]. Developed countries widely practice the usage of innovative systems such customer relationship management as Business Intelligence, Customer Synchronized Relationship Planning, Employee experience management, Customer Intelligence, Enterprise feedback management etc. This has become a prerequisite for the successful business operation in the market.

Summarizing the results of the study are a number of advantages of client-oriented approach to enterprise activity [10; 11]:

- increasing competitiveness through market orientation enterprises, that is required by modern market trends and requirements ;
- increasing profitability (ascending spare frequency and/or the amount of purchase services);
- cost cutting (the study of consumer behavior and needs leads to cost cutting of their maintenance and at the same time detects low-income customers, reducing budgets to marketing, advertising, promotion);
- enterprise awareness (client supplies the information which helps to develop business);
- increase customer loyalty by creating the positive client experience;
- business promotion - the increase of customer base and the number of new customers (loyal customers are the source of new contacts; client recommends the company to other consumers);
- stability (developing relations with customers, directed to their loyalty and retention, long-term relations as a contrast to one-time sales);
- keeping the balance of interests of the enterprise and the client (on the basis of studying consumer demand and customer needs as well as the behavior of competitors an enterprise offers different program for the customers depending on the significance of a customer to a company and the stage of their relationships at the moment);
- decrease of the complaints number in the areas with the highest complaints contingency;
- positive image of an enterprise (good reputation) .

Based on the above it can be concluded that the main success factor of a service company is the ability to meet customer requirements. Therefore, its strategic orientation should be directed to the consumer. Thus, the new basis of a paradigm of service management is the client-oriented approach in enterprise management.

Customer-oriented approach, above all, should become the philosophy of business, by which the company directs all its efforts on customer satisfaction, in order to transform it into customer loyalty. The main priorities for the company in this regard should be:

*First*, collect information about customers to understand their material needs and system values to their satisfaction by providing appropriate services. It should include actual and potential customers. Information gathering is a complex process that relies on both traditional and non-traditional methods. Also it requires organizing, storing and rapid access which all can be provided by the innovative customer-oriented information systems;

*Secondly*, the company must distribute customer information among staff of all departments that are directly or indirectly involved in meeting customer needs. The goal is to transform customer information into a guide to effective action. It is important that information is used only as a mean of exploring individual units with the state of the client. On the contrary, such information should play an active role and serve as the basis for determining the tasks, the performance of which will help the company to improve its economic performance;

*Thirdly*, the company should make changes to their production programs on the basis of this information to be able to provide customers with new and / or improved services. First of all, the company should improve its quality, to ensure the development of new services using the information about customer requests. It is important to emphasize that service improvement is achieved if the analysis of the needs and demands of the client is a continuous, systematic process.

Thus, according to the modern concept of Service Management, business administration should be directed to: maximum customer satisfaction by providing a quality product; creating a positive customer experience that forms consumer loyalty and encourages client return; providing conditions and opportunities for continuous improvement of a service product at an enterprise; creating a positive company image to provide its stability.

**Conclusions.** Having investigated the nature and different views of customer-oriented approach it is now possible to clarify the definition from the position of a new management paradigm :*customer-oriented approach* is a scientific approach that changes the concept of modern enterprise management and is based on the knowledge of customers and their needs, allowing you to create a positive customer experience, consumer loyalty, maintain regular and attract new customers by interesting suggestions for all the parties.

Applying the concept of service management based on the customer-oriented approach an enterprise should rely on the long term prospect. The transition to the new management model requires significant costs that do not give instant results. To be customer-oriented, a service company should, above all, know their customers, to be able to identify target groups and to identify their unique needs, develop key competencies (ability to repeat the successful experience with the best result) to prioritize short-term profits to benefit. And always remember that customers are the vital source of an enterprise, and it is necessary to respect, appreciate and take care of them!

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**ORGANIZATIONAL ASPECTS OF STRATEGIC  
MANAGERIAL ACCOUNTING WITH  
CONSIDERATION OF INTERNATIONAL PRACTICE**

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**Keywords:**

*strategy, managerial  
accounting, strategic  
managerial accounting,  
efficiency, control.*

**ABSTRACT**

In the article has been considered the issue of identify factors in the organization of strategic managerial accounting, considering internal and external environment of the modern enterprise. There has been analyzed the essential characteristics and specific features of strategic managerial accounting, as well as the differences between strategic and traditional managerial accounting. The research resulted in determination of informational aims of strategic managerial accounting, realized in the decision-making system.

**Problem statement and it's relation to significant scientific and practical issues.** Success and competitiveness of domestic enterprises within current dynamic conditions is impossible without management efficiency increase, its activity monitoring, forecasting and precaution of problem situations, combination of measuring figures of strategic and operating management. These can be achieved through implementation in the current practice of domestic entities of strategic managerial accounting as an integral, flexible, multifunctional system of data, oriented to satisfy specific informational managerial requests to make efficient managerial decisions.

**Analysis of the latest publications, related to the problem.** General aspects of organization and methodology implementation as well as strategic managerial accounting keeping were disclosed in papers of domestic scientists – Bolduiev M.V. [3], Vachrushina M. A. [4], Kuzik P.O. [6], Ozeran V.O., Boichuk T.V. [7], Panchenko Y.V., Buflon L.Y.[8], Plikus I.Y. [9], Pushkar M. S. [10], Shevchuk V.R. [11] etc.

Approaches, principles and methods of information appliance of strategic managerial accounting are presented in the papers of experts in the field of analysis Suvorova S.P. [12], Yurasova I.O. [14], Chaia V.T., Chupakhina N.I. [15], Yarkova I.V. [16] etc. Among foreign experts, who consider the problem of managerial accounting formation, the papers of E. Andersen, K. Grude, T. Haug [1], E.A. Adkinson, D.R. Banker, R. C. Kaplan, M.C. Ian [2], K. Druri [5], B. Rayan [11], Johncon H.T. [18], Yarugova A. [17] etc.

Performed research of the papers of domestic and foreign authors shows off, that certain discussing issues are still unsolved: directions, means and elements of strategic managerial accounting system implementation, its place and structural scale in the structure of generally accepted accounting keeping, its relation to the other types of economic information in the general informational system of enterprise managements. At the same time, scientific and practical recommendations, directed to improve the managerial accounting quality, its strategic accounting subsystem, the current phase of economic development do not contain total systematization of scientific theory.

Insufficient development of the theory, methodology and methodic instruments of strategic managerial accounting implementation in the accounting process of Ukrainian enterprises has determined the significance of further research.

**The purpose of research** refers to complex assessment of the system of managerial processes, determination of theoretic and methodological aspects of strategic managerial accounting implementation within current economic terms with consideration to requirements of international practice of accounting keeping and domestic legal documents for enterprises in the field of production. On the basis of performed research the authors substantiate conclusions related to strategic managerial accounting implementation at the enterprise.

**Presentation of the results.** Strategic managerial accounting is related to the term “strategic management” as the system of registration, generalization and presentation of the data, significant for strategic managerial decision-making by the managers of the enterprise. Considering its peculiarities, it is important to notice that in a same way to the system of traditional managerial, the strategic accounting is not regulated in domestic legislation; managers of the enterprise determine parameters of its objects classification and informational provision. Information of strategic managerial accounting, specified for managers of the enterprise, is a trade secret and has confidential character.

As known, comparing to financial accounting, the managerial one doesn't only present retrospective facts of manufacturing and financial activity, which have already been performed, but also gives wide possibilities to create the system of calculated forecasting figures of development of the enterprise. Basing on such statements and the role of the strategic accounting at the enterprise management, most experts in the field of informational provision determine strategic managerial accounting as forecasting, prospective one [5, 11, 12].

Thus, strategic accounting is entitled with certain features. K. Druri suggests, that traditional managerial accounting doesn't disclose financial information, which is necessary to monitor current strategy of the enterprise, or in order to create such strategy [5].

S. T. Johnson, R. Kaplan, criticizing current state of managerial accounting, notice that managerial accounting doesn't response to its title and focuses on internal problems of the enterprise, pays little attention to external conditions and doesn't create information flows for the higher level of enterprise management, which is necessary in current business-environment [18]. Using performed by A. Yarugova similarity test of traditional and strategic managerial accountings, the authors developed their comparative characteristic of differences [17] (Table 1).

Table 1

**Comparative characteristic of strategic and traditional managerial accounting\***

| №  | Figure                                             | Managerial accounting                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                              |
|----|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                    | Traditional                                                                                                                                                                                                                                                                                                                                                   | Strategic                                                                                                                                                                                                                                                                                                                                                                                    |
| 1. | Aim of accounting                                  | Assistance of managerial department in planning, control, accounting, analysis and forecasting.                                                                                                                                                                                                                                                               | Assistance in strategic aims achievement in favor of its owners, shareholders, client and other business process participants demand satisfaction (managerial decision making).                                                                                                                                                                                                              |
| 2. | Orientation                                        | Internal processes of the enterprise.                                                                                                                                                                                                                                                                                                                         | External business-environment analysis (competitors' profitability, market position etc.).                                                                                                                                                                                                                                                                                                   |
| 3. | Source of information                              | Data of financial, statistical, tax accounting and internal information.                                                                                                                                                                                                                                                                                      | Internal and external information, other unofficial information.                                                                                                                                                                                                                                                                                                                             |
| 4. | Main targets                                       | Informational provision of assessment and analysis of certain structural departments activity;<br>Informational provision and report preparation on deviation and their interpretation by certain structural units;<br>Alternative managerial decision analysis;<br>Possible consequences analysis;<br>Recommendations on certain managerial decision choice. | Informational provision of taken strategy realization;<br>Analysis of the effect of the strategy alter, assessment of the efficiency of such alternations;<br>Competitors profitability analysis;<br>Customer profitability analysis;<br>Evaluation of strategic decisions, related to their influence on the production process;<br>Informational provision of core factors of success etc. |
| 5. | Objects of accounting                              | Products, goods, services                                                                                                                                                                                                                                                                                                                                     | Manufacturing process phases                                                                                                                                                                                                                                                                                                                                                                 |
| 6. | Directions of the cost analysis                    | Cost analysis, which depends on concrete managerial requests (activity expenses assessment and products cost calculation).                                                                                                                                                                                                                                    | Cost analysis, which depends on the accepted strategy (calculation of the whole manufacturing process).                                                                                                                                                                                                                                                                                      |
| 7. | Approaches to calculation and analysis of expenses | Choice of the calculation method depending on specificity of structural department activity.                                                                                                                                                                                                                                                                  | Analysis of own activity results of manufacturing enterprises with competitor results.                                                                                                                                                                                                                                                                                                       |

\*- developed by the authors

Regardless the determined differences, the strategic managerial accounting is considered as a separate direction of managerial accounting development, which is related to the necessity of moving out of the enterprise borders and its integration with the external environment [7].

Basic specific peculiarities of strategic managerial accounting are disclosed on the figure 1.

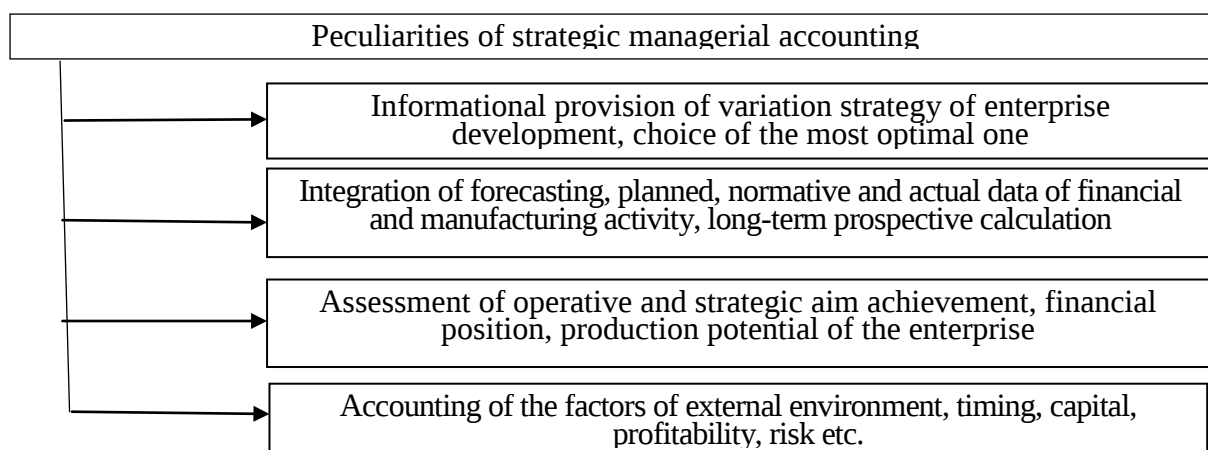


Figure1. **Peculiarities of strategic managerial accounting** [12]

On the basis on peculiarities of strategic managerial accounting the authors distinguish the following groups of the most important informational purposes, which can be solved with the help of created system:

1. Assessment (of enterprise activity efficiency, certain units, stuff, types of products etc.);
2. Control (of expenses, cash flows etc.);
3. Planning and budgeting (profit maximization, strategic planning and managerial decision-making, business-strategy implementation );
4. Interpretation and presentation (of business activity results, business activity types);
5. Cost calculation (of products, goods, services).

Peculiarities of strategic managerial accounting determine the field of its appliance through wide informational provision of enterprise management, taking into consideration the influence of external environment. Strategic managerial accounting implementation, with reference to its peculiarities, provides strong informational effect in the field of informational provision of enterprise management. But implementation of strategic managerial accounting on domestic enterprises is a slow process. It can be explained by possible destroy of existing type of informational relations and the structure of responsibilities on the first phase of its implementation, which can be critically risky for enterprises, working in terms of crisis economy with low level of profitability.

Also strategic managerial accounting implementation in domestic enterprise activity, as usual, is followed by the absence of motivation of top managers, low professional skills of specialists in the field of strategic aims formation and execution. The whole process of implementation of strategic managerial accounting system should be performed deliberately, step by step, with assessment of efficiency of every phase and accurate planning of the following one, because expenses on improvement of management informational system should provide significant effect for manufacturing enterprise.

Nevertheless, the process of appliance of both traditional and strategic managerial accounting includes not only accounting as fixation of business activity facts, but also performance of the processes of analysis, planning and control on the basis of extended or newly created informational basis. Accounting, analysis, auditing and taxation are united in a unified system in accordance with general target strategic direction of managerial function realization: informational basis preparation, analysis, assessment, decision-making and control after their execution with consideration of internal and external factors. Implementation of strategic managerial accounting enables to take into account position of internal and external factors of influence on decision-making process. Strategic managerial accounting is an important informational system for rational managerial decision making in the terms of uncertainty and risks, which is inherent to current economic environment of domestic manufacturing enterprises.

**Conclusions and recommendations.** Implementation of strategic managerial accounting extends informational basis of managerial decision-making, which can lead to increase of business activity efficiency. Enterprises should pay more attention to efficient ways of informational data formation with the assistance of strategic managerial accounting.

Traditional practice of managerial accounting keeping and its role are still of extreme importance, but current tendencies of economic challenges stimulate functional extension of informational provision of decision-making process, through the system of strategic managerial accounting, directed to further development of managerial function execution through appliance of long-term analytical and assessment methods. Using of both external and internal information, strategic managerial accounting satisfies requests of enterprise development forecast, performing business activity analysis and taking into account of both current and long-term aims. Phased implementation of strategic managerial accounting should be considered from the point of its influence on efficiency of business activity results of the enterprise and substantiated decisions for the long-term prospect.

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JEL Classification: I230

УДК 658.532:658.27

**GENESIS OF CREATION AND DEVELOPMENT OF  
BRAND-CAPITAL OF KYIV NATIONAL  
UNIVERSITY OF TECHNOLOGIES AND DESIGN**

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**Keywords:**

multilevel model of brand promotion, university, education market, the level of brand capitalization of universities.

**ABSTRACT**

A study of the formation genesis of multilevel model for brand promotion of modern institution in the educational market is performed. The proposed system of institution brand management based on the evaluation of capitalization and assets of the brand.

**Problem statement.** The functioning of the educational market contributes to the creation of highly skilled professionals, ensures the creation and development of human capital, human resources and has a significant impact on economic growth. According to the Ministry of Education and Science of Ukraine, despite the growing demand for higher educational institutions in the country within recent years, unfavorable demographic situation significantly reduced the number of potential applicants. In this regard, there are economic incentives to schools to compete for students and graduates providing demand in the labor market.

In modern conditions of modernization of our educational system, elements of brand image of higher educational institution are specific rational and symbolic values of educational service, significant part of which is associated with the use of modern information and communication technologies, using marketing strategy to promote the brand of the university, university reputation and image creation in the educational market.

**Recent research analysis and part of the unsolved problem.** Leading local and international experts in the fields of economics, marketing and strategic planning, such as Azoev A., Becker G., Gamble P., Grishchenko I. [2], Gordon J., Doyle P., Drucker P., Kotler F., Krakhmalova N. [1], Lambe J., Levitt T., Porter M., Simon B., Hussey D. etc. were interested in communication and marketing support of higher education.

The analysis of scientific literature on the research topic proved insufficient level of study on university brand promotion in modern conditions of economic knowledge creation in terms of methodological issues disclosure of technology related to market target segments determination, developing unique product offering and strategy of university brand promotion, new interactive technologies introduction to educational process.

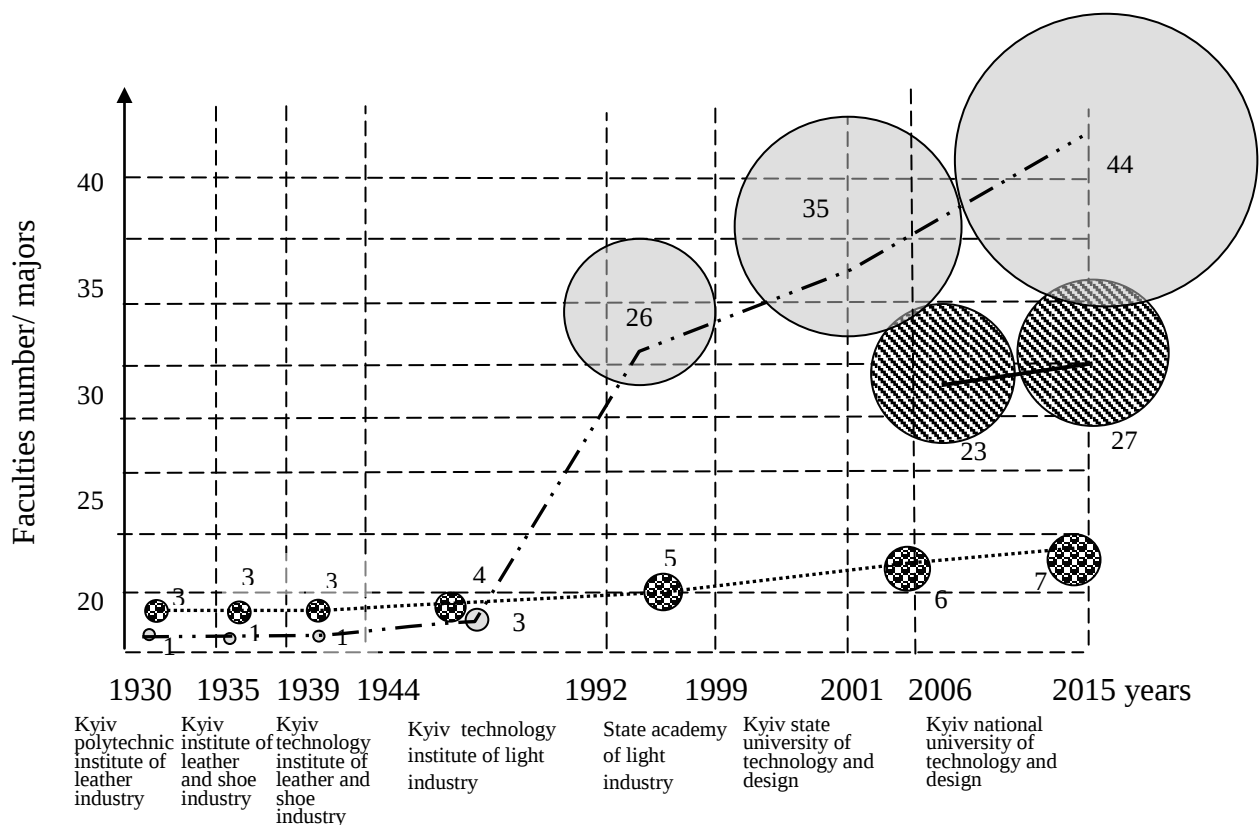
**The goal** is to study the genesis of the multi-level model creation of brand promotion of modern institution of higher education in the educational market.

**Research results.** Kyiv National University of Technology and Design (KNUTD) is a multi-profile educational, culture, scientific and innovation complex with well-developed infrastructure and modern logistical support, carrying out multi-level training for qualified professionals in different areas. It consists of 7 faculties, 3 institutes and 3 colleges. To date, the University provides training in 16 disciplines, 13 undergraduate majors with "junior specialist" title, 29 courses for RVO "Bachelor" title, 36 majors for "specialist" title and RVO "Master" and 40 professional courses and specializations; retraining of professionals from four majors title "junior specialist" and 11 majors for title "specialist". Total number of students enrolled in engineering, design, computer, economic, chemical and other fields and professions comprises approximately 10 thousand.

In conditions of global educational market creation competition level in higher education increases to gain more applicants not only between Ukrainian universities, but also between foreign parties that offer educational services in the market [1]. Universities have to defend their competitiveness, conduct management innovations and achieve quality standards [2]. In these condition, it is impossible to handle without marketing, where one of its instruments is reasonable brand concept use, which means strong brand equity creation. A strong brand, which includes not only educational services, but also a specific set of perceived consumer associations and characteristics, allows the university to deal not only with domestic competitors in the Ukrainian market, but also with foreign players, which is extremely important in the process of globalization of education space [3].

The creation and development of the brand is a synergistic combination of the following components: 1) creation of individual brand features; 2) the creation of brand attributes; 3) positioning; 4) management of brand equity; 5) brand promotion.

Brand KNUTD was formed and developed throughout the historical period of its existence (1930-2015.), But the most intensive growth started from 1992 mainly due to internal activation of own resources, the development and implementation of comprehensive programs to enhance training activities, implementation of comprehensive measures to move from losses to competitive durability (Figure 1).



**Fig. 1. Epistemological analysis of KNUTD brand**

*Explanation:* - ⊗ - number of faculties; ○ - number of majors; ⊕ - number of undergraduate Bachelors training majors

As illustrated by Figure 1 breakthrough in the KNUTD development happened in 1992 when Kyiv Technological Institute of Light Industry was accredited by the fourth (the highest) level of special training and was renamed to the State Academy of Light Industry of Ukraine (SALIU) and then in 2001 - to Kyiv National University of Technology and Design (KNUTD), indicating university's national and international results recognition and its significant contribution to the development of national education and science.

During KNUTD brand individual features development, its mission, values, core competencies, philosophy, image and corporate culture were defined. Mission is described as a common goal, the meaning of high school existence. According to the Law of Ukraine "On Higher Education" the principal mission KNUTD is a flexible and innovative educational system to meet society needs in the preparation of competent, competitive professionals of European level, corresponding to the demands of the information society, the needs of international and national labor markets, integrated into the global educational space and oriented to democratic values. KNUTD brand development is depicted in the unique competencies creation (Figure 2).

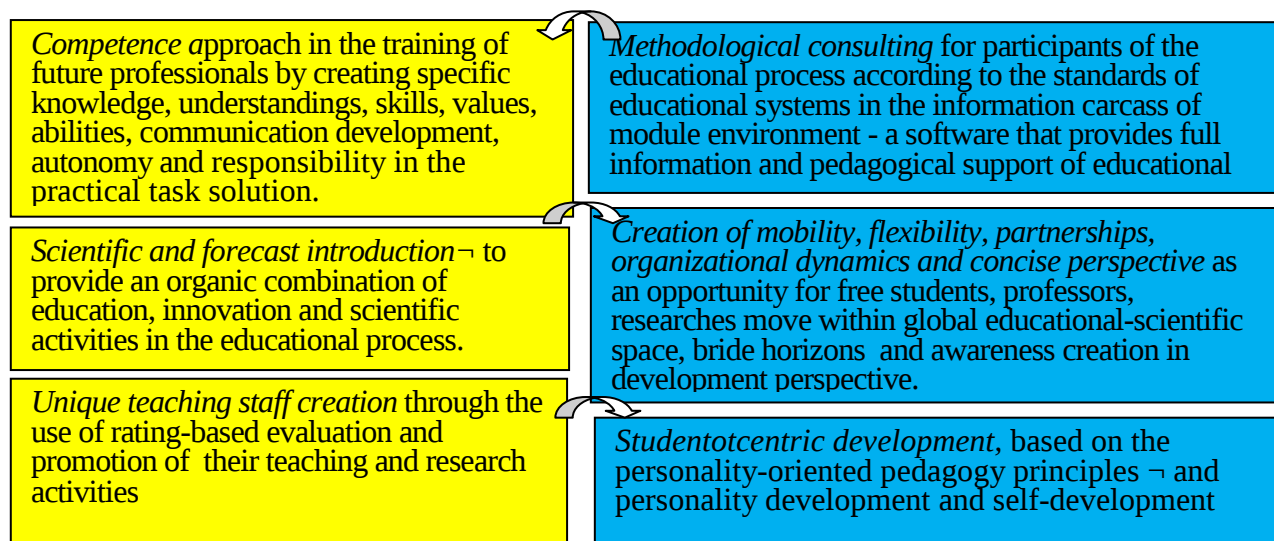


Fig. 2. Synergetic combination of KNUTD competencies

University brand placing happens the in the minds of consumers compared to competitors at positioning stage. Important components of university positioning can be the following: trust (correspondence between consumer expectations and the actual university state), value (perceived benefits for consumers), fitness (strengths of the university) and stability (the period of time during which position is maintained). Positioning is used as a basis for building communications and brand development strategy (Figure 3).

| Perceived brand KNUTD value                    | Internal factors affecting brand KNUTD |
|------------------------------------------------|----------------------------------------|
| 1. KNUTD in international and national ratings | 1. Curriculum and teaching quality     |
| 2. KNUTD the eyes of students                  | 2. University infrastructure           |
| 3. KNUTD according Employers evaluation        | 3. University International Relations  |

Fig. 3. External and internal environment impact on KNUTD brand positioning

One of the key indicators of educational services quality is different kinds of university rankings that serve as a measure of competitiveness level between higher education institutions (HEIs), where the place occupied by a particular university reflects its prestige, a clear university brand positioning institution in the eyes of international and domestic community [4].

One of the most famous universities rankings is Webometrics – global universities ranking, also known as web-ranking of universities [5]. This is a

global system of universities ranking, where university place is determined by the level of university presentations online. Since 2004, the ranking of the universities around the world presence online takes place twice a year. At present performance of about 13 thousand universities among 18 thousand enlisted in the World Higher Education (WHED) is analyzed.

Visibility of changes that take place in the KNUTD brand positioning according to the evaluation system Webometrics, showed by Figure 4.

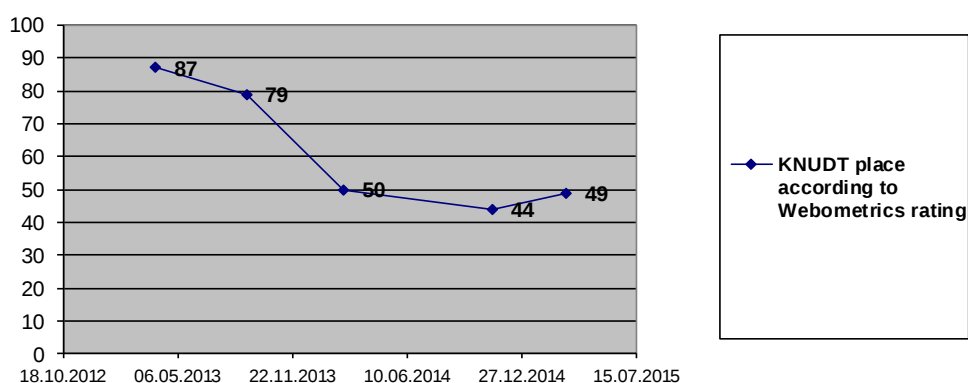
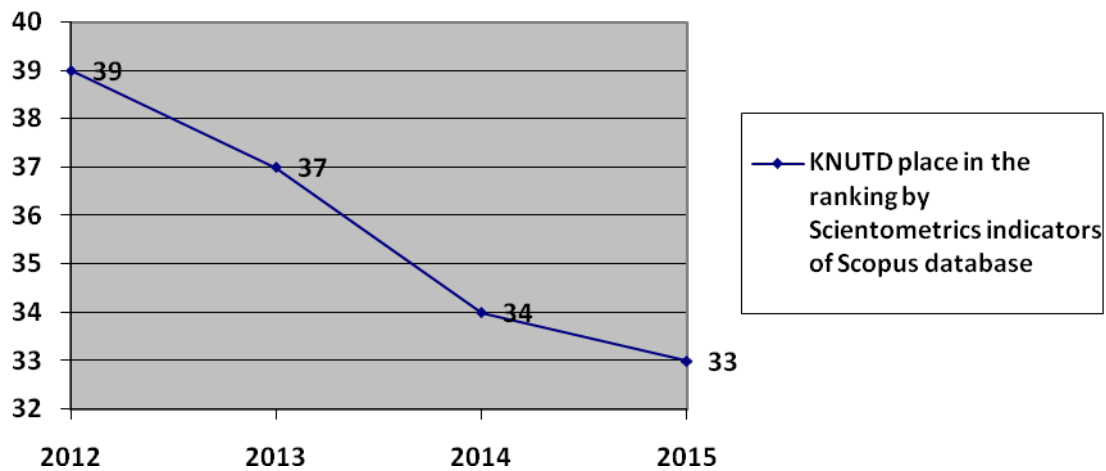


Fig. 4. KNUTD Brand Positioning by Webometrics ratings [5]

As illustrated by Figure 4. KNUTD brand presence in the global information space has recently significantly increased (almost twice over studied period - 44%).

Brand positioning in global university rankings citation is determined by the following systems: THES-QS 2009 Citation / Faculty (Scopus); ARWU - frequently cited studies (HiCi); the number of articles published in the magazine Science and Nature (N & S); the total number of items included in the scientific citation index: SCIE and SSCI (SCI) [6; 7]. KNUTD ratings dynamics compared to higher educational institutions of Ukraine by indicators Scientometrics database Scopus is shown in Figure 5.



**Fig. 5. KNUTD brand positioning in the ranking by Scientometrics KPIs, Scopus database**

As illustrated by Figure 5 in the higher education institutions of Ukraine ranking by Scientometrics KPIs, Scopus database, KNUTD is consistently improving its position among the best 112 universities: from 39 place in 2012 to 33 in 2015. This indicates a 15% increase of scientific activity of the university's faculty and professors and the number of publications of own research. The directions of further KNUTD brand development and its external positioning strengthening might be: publications in international scientific magazines, publications in English, publications in electronic magazines, in e-libraries of own content, online publications, fix of their affiliation to the university, KNUTD colleagues' citation.

As for the national rankings, it is worth to note that May 30, 2015 Centre for International Projects "Eurosvita" in partnership with the international team of experts presented the 8th Academic Rating of Ukrainian universities "Top 200 Ukraine" (Figure 6).

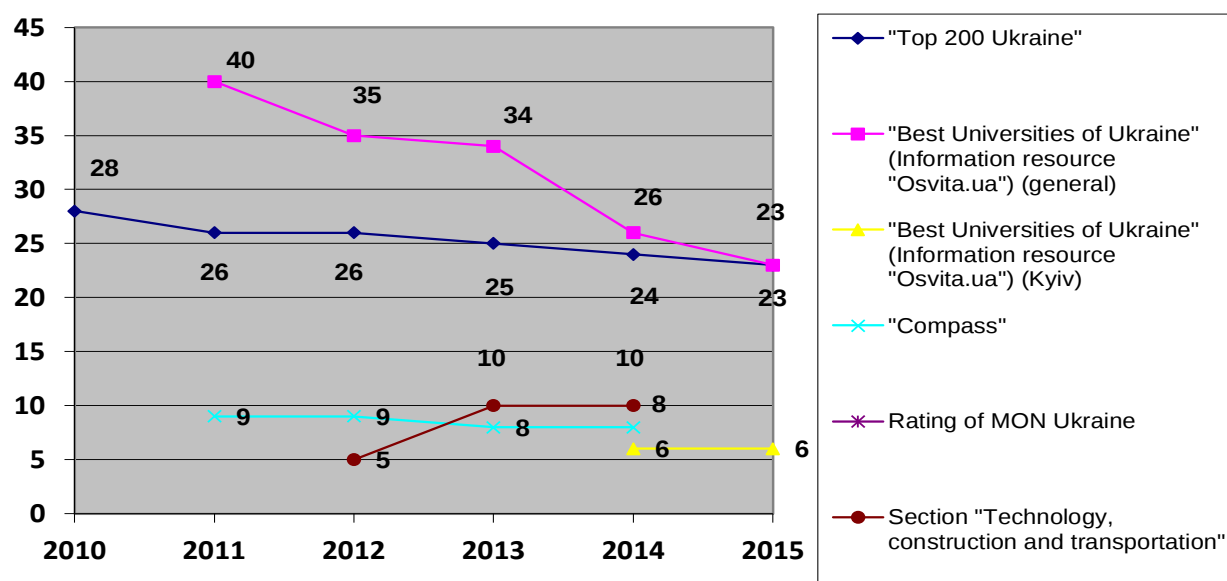


Fig. 6. KNUTD brand positioning in national rankings

The rating calculation method "Top 200 Ukraine" universities' activities are evaluated using aggregated index (integral index), which is comprised of basic indicators of direct measurements (80%), expert assessment of the graduates quality by the employers and the academic community (15%), and also using international scientometric and web metric data (5%).

According to the results of this evaluation KNUTD got the following ratings places: according to "Top 200 Ukraine" – 23<sup>rd</sup> place, «Scopus» - 33<sup>rd</sup>, «Webometrics» - 49<sup>th</sup> place, general ranking – 23<sup>rd</sup>, total score – 105<sup>th</sup>. Given data shows that KNUTD is dynamically developing under rapidly changing requirements of time.

The indicators of university brand loyalty are the following: high competition for scholarship and paid places; consistency of students body; number of graduates who want to enter the Masters and Postgrad programs; university satisfaction level (Figure 7, 8).

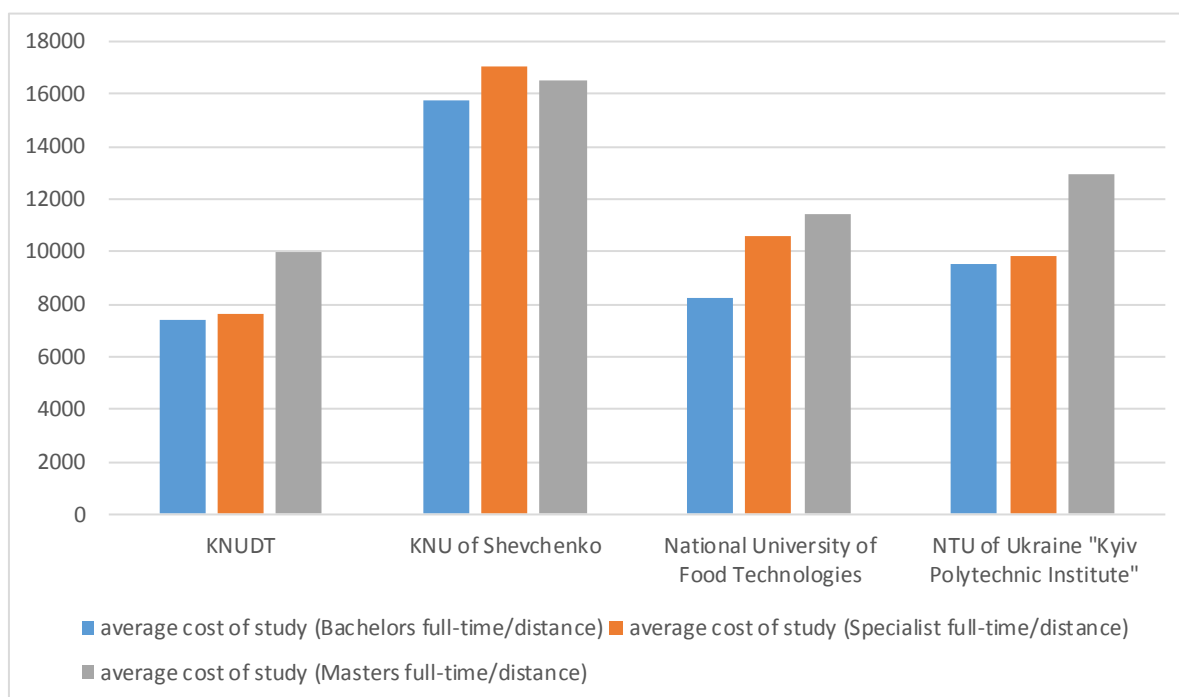


Figure 7. The average training cost compared to key competitors

Brand management allows the university to manage the brand assets, to improve and increase its capital. The results of effective brand management are the following: higher sales volumes and prices vs competition; ability to minimize the promotion cost; stability in crisis situations; corporate culture strengthening. Brand management is also aimed to build customer loyalty.

The integrated index is represented by three components: quality of scientific and pedagogical potential, quality of education, international recognition [8; 9; 10]. According to the results of this evaluation, KNUDT is ranked 23rd (compared to: 2012 – 26<sup>th</sup>, 2013 – 25<sup>th</sup> and 2014 – 24<sup>th</sup> place). Apart from that, a consolidated rating of Ukrainian universities was compiled by information educational resource "Osvita.ua" in 2015, where the most competent experts and mass media of national and international rankings of Ukrainian universities were used such as "Top 200 Ukraine" «Scopus» and «Webometrics», each of them uses different criteria for evaluation of higher educational institutions.

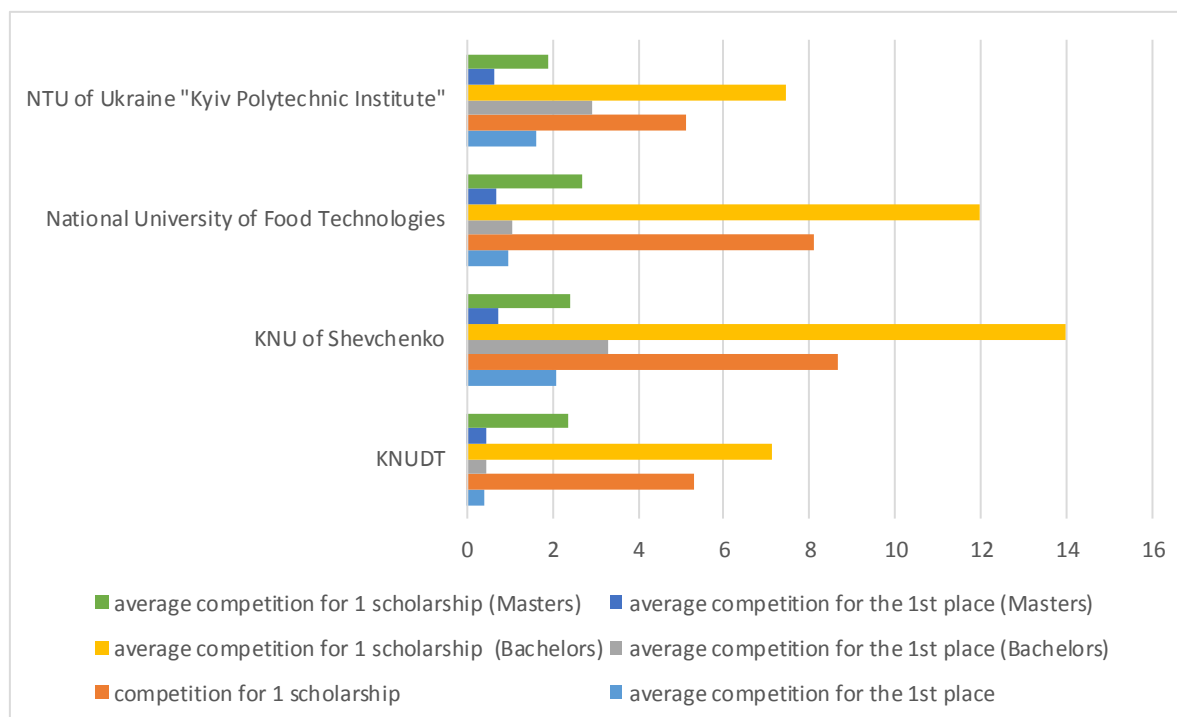


Figure 8. Competition for the 1st place among key competitors

According to fig.7,8: the cost of training of key competitors is on average 60% higher (Kyiv National University T. Shevchenko) and 50% higher (National University of Food Technologies), competition for one place in general as well as for 1 scholarship is 1 - 2 times higher (KNU. Shevchenko) and 1.5 times higher (National University of Food Technologies).

The cost of training and competition for one place in KNU and NTU of Ukraine "Kyiv Polytechnic Institute" are practically identical. This proves that KNU brand is very strong, well-known, widespread and popular. It is needed to use interactive methods of brand promotion by choosing the most effective communication channels and promotion methods in accordance to the positioning and target audience specific. It should be noted that there is some difference between the concepts of "brand" and "brand equity", the latter is slightly wider, so that the brand itself serves as the core of brand equity, reflecting to a greater extent its emotional essence in the perception of the consumer, while brand - equity practically reflects the results of its implementation in the market, supported by appropriate logistical and intellectual ground. The proposed approach to University's brand equity can be determined based on the degree of utilization of organizational capacity. In essence it is systematic and formalized university competence plus systems that enhance the effectiveness of its creative and organizational capabilities aimed at providing educational services of high quality and value. Calculation of University's brand equity was made using the application package STATISTICA7 (Fig.9).

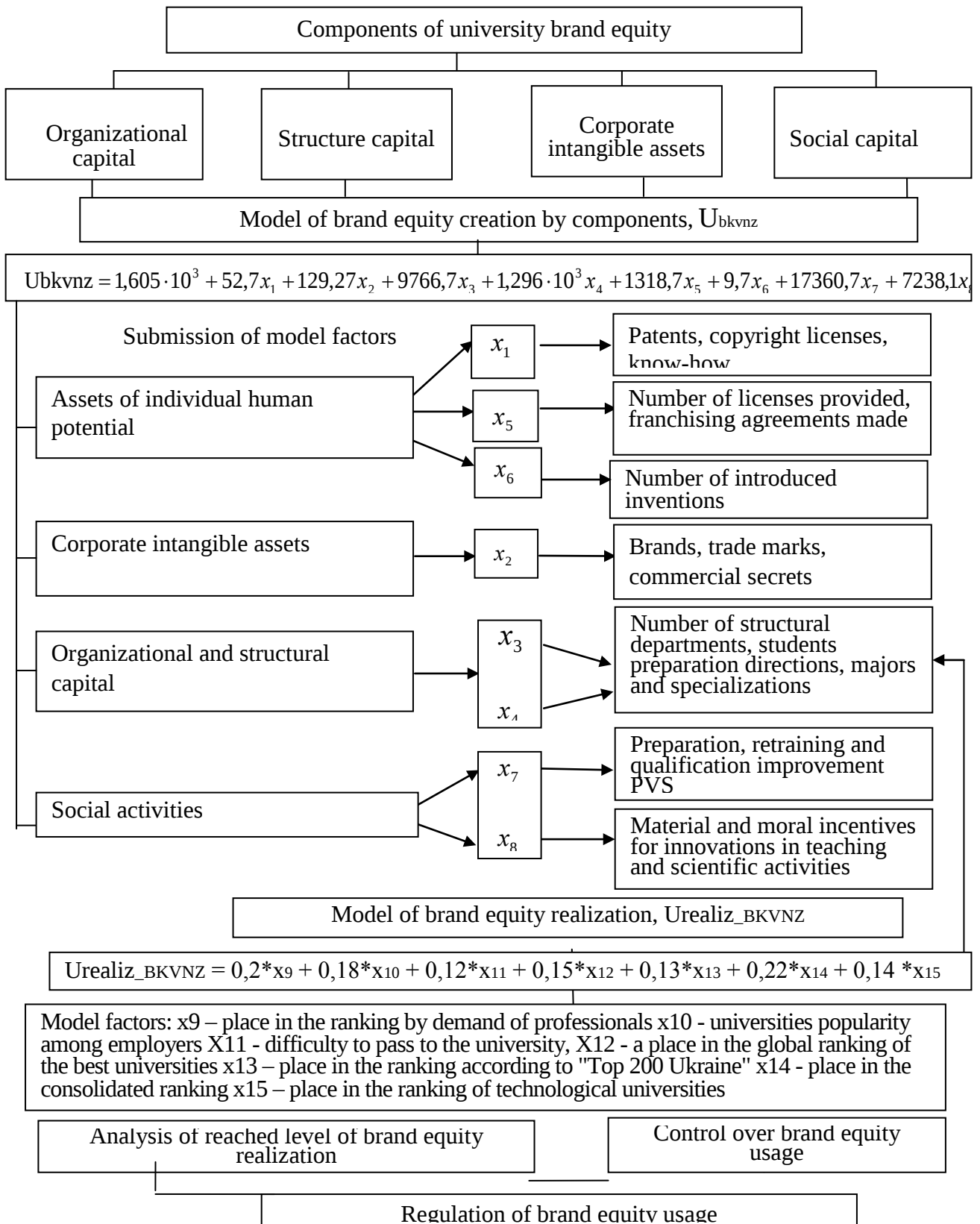


Fig. 9. The model of University brand equity and its implementation level evaluation

According to Fig.9 first model reflects the development of University brand equity of 4-defined components, and the second one reflects the results of its implementation from potential consumers point of view, as well as in the external environment (employers, public and scientific community). Here, the weights were significance levels of a place in a particular rating for determination of competitiveness in the emerging informational society, and scores were data on university place in the proper rating or experts estimation of the educational sector and labor market (for university entrance difficulty and university popularity among employers and recruitment agencies). Detailed information on the calculations results of 68 best capital universities in the universities consolidated ranking of Ukraine is presented in Figure 10.

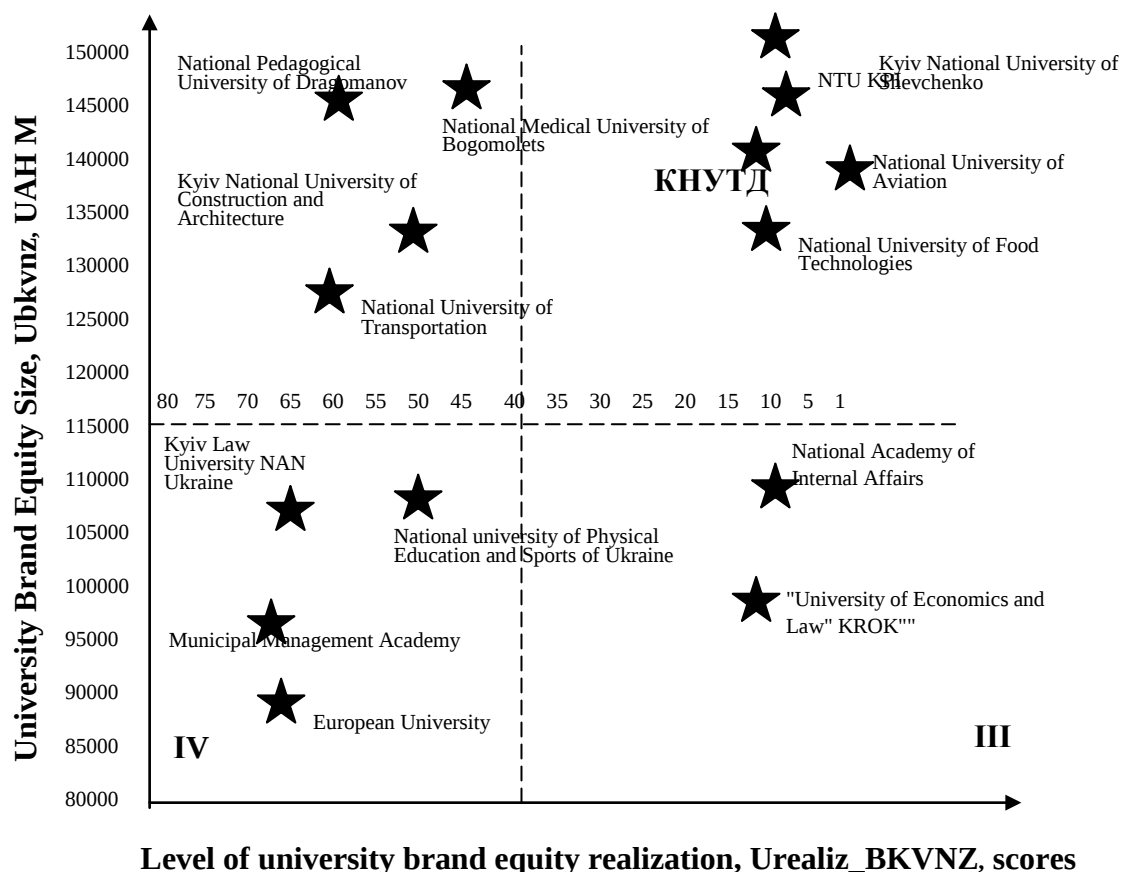


Fig. 10. Map of brand positioning of capital universities in the educational market

Therefore, we propose the following definition of "University's brand equity " (UBE) – it is a set of intangible and virtual assets in the form of "goodwill" that create exclusive competence of the university in a particular field of education and research activities, image and reputation of the institution of higher education and reinforces its organizational capabilities.

According to the given brands' positioning map (Figure 10) KNUTD is also in the elite segment among famous leaders of higher education (Kyiv National University. Shevchenko, "National Technical University of Ukraine" Kyiv Polytechnic Institute", National University of Life and Environmental Sciences of Ukraine, National Aviation University), however it is required strengthened its reputation among employers to reach the most popular universities.

The main distinguishing feature is the simultaneous promotion of university activities on two markets - the education market and the labor market. The university provides consumers with two types of products: a variety of educational programs in the educational service market and skilled graduates in the labor market. It is therefore necessary to promote educational programs as well as graduates themselves.

So, the second model displays a comprehensive assessment of competitiveness of the most popular universities brands as employers choice. Assessment of brand implementation was carried out by experts' estimations.

**Conclusions and proposals.** This way it is possible to formulate effective product offerings of KNUTD brand: innovative university that introduces modern information technologies of trainings, has a high reputation among employers and ensures success of graduates in the labor market.

High image in the labor market and educational market will improve the success of graduates as well as training cost in order to increase investment volume into development and implementation of new information technologies in educational process.

In order to create a favorable attitude toward the university and high brand image of KNUTD it makes sense to choose public relations methods among all possible means of marketing communications, taking into account specifics of each target audience that are needed to be directed to the desired response development - a favorable attitude to university brand and the desire to work, study or cooperate with KNUTD.

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JEL Classification: O110

УДК 330.341.1

## MEASURINGS OF GLOBALIZATION: ESTIMATION OF PROBLEMS AND WAYS OF PROVIDING OF STEADY DEVELOPMENT OF UKRAINE

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### Keywords:

Globalization, global problems and threats, degree of remoteness from the global threats, steady development, index of steady development, measurings of steady development, government special purpose program, strategy of development.

### ABSTRACT

In the paper the modern trends of quantitative evaluation of level of globalization are examined, degree of countries remoteness from the global threats and index of steady development with recognition of foreign and domestic experience. Achievements on a way to steady development are examined and problems, which on the modern stage appeared before postsocialistic countries, including Ukraine, are determined. It is determined that the problem of providing the steady development of Ukraine needs complex decision both on state and regional, industrial and micro levels. For providing steady development of national economy on the whole and of separate industries of national economy the necessity of development of complex of measures (special purpose programs), which must be inferior to the decision of three basic blocks of questions - economic, ecological and social is grounded.

**Introduction.** The irrepressible aspiring of people to provide economic and technological development became the characteristic feature of the last century. Thus the criterion of quality of development mainly was an increasing of gross national product of country. At the same time such spheres as economy, environment and society connected between itself were examined and function isolated one from another. As a consequence, at the beginning of XXI century world faced global ecological problems, hunger and impoverishment of majority of population of earth, degradation of moral, growth of regional and ethnic conflicts, terrorism.

Activation of process of globalization was conducted by passing of the developed countries in to the postindustrial stage of development and familiarizing of achievements of informative revolution by other countries. While the leading countries of the world widely use the possibility of innovative economy and form postindustrial society, industry of Ukraine is based mainly on traditional technologies, based on the early stages of industrialization.

The processes of globalization require strengthening of stimulation of innovative activity in Ukraine, familiarizing of new culture of production, approaching of conditions and payment for labor to the European standards.

**The present state.** The countries of postsocialistic space, including Ukraine, felt influence of globalization, when their economy and social sphere became opened for the world. The new phenomena brought these countries new possibilities and prospects. Access to cultural, intellectual and technological achievements of world society broadened. But, next to positive factors of globalizations which were full enough discussed in numeral literary sources, there are many problems and threats.

Risks of loss of national identity and culture of ethnic minorities, international criminality, corruption, terrorism, violations of copyrights on intellectual and industrial property, crimes in informative networks, etc.—all of this are displays of globalization.

Ukraine is one of countries with the most transformed natural environment in all of its displays (ground, air, water), as the „unique economy complex", which was the geopolitical doctrine of the USSR, but not financial viability, played a destructive role in development of economy, giving it all typical signs of colonial economy [1]. To the extent of development of technological and public progress the negative phenomena of globalization spread more quickly, and efforts on a fight against them grow and become more complicated - the chances of Ukraine to use advantages of globalization grow from one side, but from the other, Ukraine becomes more opened for new threats.

As a basis for development of triune conception of steady ecological-social-economical development, which united three main components, - economic, ecological and social, were the studies of V. Vernadskiy about noosphere [2]. Generalization of this conception was done on the world summits of UN in 1992th and 2002th, in which more than 180 countries of the world, international organizations and leading scientists of the world took part.

Such domestic and foreign authors devoted their researches to problems of globalization and steady development of world: O. Bilorus, U. Maceyko, D. Luk'yanenko, E. Libanova, N. Vlasenko, O. Vlasyuk, S. Sokolenko, B. Daniel, A. Gal'chinskiy, S. Levochkin, A. Fedotov, M. Moiseev, and also R. Barnet, J. Cavanagh, Z. Bauman, O. Boyd-Barrett, J. Brecher, T. Costello, M. Chossudovsky, etc.

However, subsequent study of such problems is needed: question of development in general and economic development in particular; research of its character in a new globalizing international economy; forming of the system of measurings of steady development on different levels and strategy which would provide steady long-term development at the harmonic balancing of three its components - economic, ecological and social.

With the purpose of prevention the negative consequences of globalization processes and for the sake of survival of humans must take control over these processes and to realize necessity and expedience of their prognostication and regulation. Development in the center of which stands production is now under a doubt, which stipulates the necessity of change of all paradigms - from ideology of accumulation of wealth on earth to ideology of „clever sufficientness”, from ideology of competition to ideology of mutual help.

The purpose of this article is eliciting of basic problems and threats which appeared before Ukraine and other postsocialistic countries on the modern stage, and also determination of basic directions of providing their steady development.

**Diagnosis of the problems.** Globalization, in obedience to determination of the American researcher Kelda Makgryu [3], is an expansion, deepening and acceleration of interconnections in the world in all aspects of modern human life. It incarnates the idea of integrating of countries in a world community and their general development. Engulfing the wide circle of spheres of human activity, from culture to criminality, from finances to spirituality, globalization causes the great number of discussions and disputes. Results of generalization of problems and threats of globalizations which are enlightened in labors [4; 5; 6] are presented at table 1.

Table 1

**Problems and threats of globalization  
(generalized from data [4; 5; 6])**

| Character | Problems and threats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| economic  | <ul style="list-style-type: none"> <li>- unevenness of distribution of financial streams in the world, control of the speculative capital over the financial markets;</li> <li>- process of transnationalization of large capital;</li> <li>- „unrestrained” expansion of world markets for the certain types of products, commodities and services, due to development of „electronic trade”;</li> <li>- continuation of increasing of wealth by developed countries, their removal from countries which develop (to which it is possible to take Ukraine);</li> <li>- the unfair distributing of benefits from globalization among poor countries, strengthening of their exploitation by hard usage of mechanisms of globalization through the discriminatory trade policy of the West;</li> <li>- development of world labormarket, which creates conditions for an outflow of skilled employees and young people from other countries of the world, as a result serious limitations are created in relation to the prospects of providing of the stable economy growing;</li> <li>- hard fight for the redistribution of both labor and natural resources with the purpose of support of living standards which were folded in these countries;</li> <li>- strengthening of unemployment and falling of level of profits, and relative or absolute impoverishment not only those, who lost the job, but also those people who work.</li> </ul> |

Continuation of Table 1

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| social     | <ul style="list-style-type: none"> <li>- distribution of drugs, growth of corruption, criminality, illegal use of intellectual property, illegal migration of people and money white-washing;</li> <li>- diminishing of availability of high-quality education, worsening of the medical providing of people;</li> <li>- forming of „global settlement” which means integration of national cultures in general world;</li> <li>- risk of losing or substantially change of the languages of small nations and people.</li> </ul> |
| political  | - international terrorism.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| ecological | <ul style="list-style-type: none"> <li>- exceeding of the possible technogenic load on a biosphere and a threat of loss of its firmness;</li> <li>- exhaustion of bowels of the earth, natural resources as a result of ineffective use of it;</li> <li>- transference of „dirty” production in countries which develop, and consequently, have cheap labor force.</li> </ul>                                                                                                                                                     |

For the quantitative estimation of positive and negative influence of globalizations on countries, which are overcome by this process, different methods are used. Most known are two systems of the quantitative and quality measuring of globalization. The first was developed by Swiss Institute of research of business (KOF Konjunkturforschungsstelle der ETH Zurich) [7], second is International organization of Carnegie Endowment for International Peace (CEIP) [8]. Both systems allow annually carrying out the quantitative estimation of index of globalization (*Ig*). After the first system (farther by the system of KOF) this index is accounted for 123 countries of the world, after the second (farther by the system of CEIP) – for 62.

The index of globalization allows to estimate the level of integration for any country in the world and to execute comparison of different countries by this index [4]. The index of globalization by system of KOF is determined by three measurings: *economic (Ige)*; *social (Igs)* and *political (Igp)* and calculated as a sum of the constituents (measurings) with the proper weight coefficients 0,34; 0,37 and 0,29 for economic, social and political constituents. By system of CEIP this index is determined by four measurings: *economic (Ige)*; *personal (Igper)*; *technological (Igt)* and *political (Igp)* and calculated as a sum of the indicated constituents with identical weight coefficients.

However, the considered methods do not take into account the ecological measuring of globalization, which, to our opinion, is one of most essential, as consequences of economic development of modern company, indisputably, there are ecological problems.

It is related to the progressive worsening of quality of natural environment, from one side, and stress and immunity lowering influence of the ecologically changed environment on the organism of humans, from another side. Taking it into account, approach in relation to dividing of the world by clusters after the level of remoteness from the global threats, developed by the Ukrainian branch of the World center of data [9] which foresee among other factors ecological factors deserves our attention.

Analysis of 69 countries of the world after the level of remoteness from the global threats, allowed to divide countries into 5 clusters, namely: cluster 1 (very large); cluster 2 (large); cluster 3 (middle); cluster 4 (small); cluster 5 (very small). For determination of rating and taking of countries to certain a cluster after an index „Degree of remoteness from the threats” are used such separate indexes: GNP per capita; TFC (consumption of traditional types of fuel in % from a general energy consumption); DI (demographic state which is characterized by correlation of GNP with closeness of population); index of GINI, which represents the measure of unevenness and used for determination of inequality of profits; index of HIV, which characterizes the percent of infected BULLOCK/AIDS in age from 15 to 49; index of TB, which characterizes intensity diseases of tuberculosis (amount of cases/100 thousand of population); index of CP, which characterizes the level of corruption; index of isolation; restrictive access to the water; CO<sub>2</sub>, that characterizes level of extras of carbon dioxide CO<sub>2</sub> (meter. tones).

Postsocialistic countries after the level of remoteness from the global threats (*Irgt*) are in the second and third clusters, namely: in the second cluster there are 10 countries, among them postsocialistic: Hungary – 0,783; Czech – 0,783; Slovakia – 0,773; Estonia- 0,743; Bulgaria – 0,737. Such postsocialistic countries entered to the third cluster (22 countries), as: Ukraine – 0,695; Russia – 0,676; Latvia – 0,674; Romania – 0,636 (others – are not presented).

An important problem on the way of embodiment of conception of steady development is forming of the system of measurings (indexes and indicators) for the quantitative and quality estimation of this difficult process. Main requirements to such system of measurings are its informative plenitude and adequacy of presentation triads of components of steady development.

By the Institute of the applied system analysis NAS of Ukraine and MES of Ukraine a method is developed [2], in accordance with which it is suggested to estimate the level of steady development by the proper index of *Isr*, which is calculated as a sum of indexes for three measurings: economic (*Iek*), ecological (*Ie*) and social (*Is*) with the proper weight coefficients. Thus each of indexes which form the index of steady development of *Isr* it is suggested to determine with the use of the indexes and indicators known in international practice.

All of indexes, built on the basis of indicators which are measured in different units, are led to the rationed kind and matter in a range from 0 to 1. It allows to expect each of indexes of *Isr*, *Iek*, *Ie*, *Is* as a middle sum from constituents with the proper weight coefficients.

It is suggested to form the index of the economic measuring (*Iek*) from two global indexes – index of competitive development (*Ik*) and index of economic freedom (*Ies*) [2]. The index of competitive development which was developed by the organizers of the World economic forum is determined for 117 economies of the world and promulgated in as so-called «Global report on competitiveness» [10]. An analysis displayed that most brightly strategy of economic development was demonstrated by such countries as Finland, Denmark, Iceland and Sweden.

It is explained by optimal combination of such factors of development of economy, as a level and quality of innovations, priority support of researches, considerable foreign investments, with the perfect legislation of countries in the sphere of taxation of business and high-tech, effective defense of private property, especially intellectual, low level of corruption, orientation of policy of countries on creation of economies after a model "welfare for all" in place of model "indifference to the elemental market".

The index of the ecological measuring (*Ie*) is estimated by the known index of *ESI* (Environmental Sustainability Index), which is determined by Center on ecological legislation and policy of Yale university (USA) for 146 countries of the world and formed by 21 ecological indicators on the basis of the use 76 sets of data about natural resources of country, level of contamination of environment in the past and nowadays, efforts of country in the field of management of the ecological state, by ability of country to improve ecological descriptions, etc [2, 11].

The analysis of the state of environment and level of economic development of countries which were examined, allowed making a conclusion, that between countries there are substantial differences both in a state of external environment and in long-term tendencies in relation to its changes [11]. Yes, level of economic development of country, shown by GNP per capita after the parity of purchasing power, not necessarily guarantees the improvement of the state of environment. In this plan appeared to be more substantial factors as: low closeness of population, economic feasibility to overcome ecological threats and quality of management of nature protection and mining, etc.

The index of the social measuring (*Is*) is the medium of three global indexes [2]: index of quality and safety of life (*Iya*), index of human development (*Ihr*) and index of society, based on knowledges, or K-society (*Iks*).

The index of quality and safety of life, which is developed by international organization Economist Intelligence Unit [12], is formed from such nine indicators as: GNP per capita after the parity of purchasing power; middle level of time life of population of country; rating of political stability and safety of country; an amount of the separated families on a 1000 of population; level of public activity (activity of trade unions, public organizations and others); difference after a geographical breadth between climatic more warm and by more cold regions of country; an unemployment rate within a country; level of political and civil freedoms in a country; difference in the middle salary of men and women.

The index of human development (*Ilr*) which is used by the program UN United Nations Development Program is formed from three indicators: middle level of time life of population of country; level of education and standard of life of population of country, which is measured by GNP per capita after the parity of purchasing power. The index of society, based on knowledge (*Iks*), is developed the department of UN on economic and social development – UNDESA [13], determined by such indexes as: intellectual assets of society; by perspective and quality of development of society which are formed by a set of 5 types of information, including the GINI index.

In table 2 information is presented about the indexes of steady development of postsocialistic countries, it was determined by the method of Institute of the applied system analysis NAS of Ukraine and MES of Ukraine [2; 14].

Table 2

**Indexes of steady development of countries of postsocialistic space**

| Country  | Index of the economic measuring<br>( <i>Ies</i> ) | Index of the ecological measuring<br>( <i>ESI</i> ) | Index of the social measuring<br>( <i>Is</i> ) | Index of steady development<br>( <i>Isr</i> ) |
|----------|---------------------------------------------------|-----------------------------------------------------|------------------------------------------------|-----------------------------------------------|
|          | Weight of constituent in a calculation formula    |                                                     |                                                |                                               |
|          | 0,43                                              | 0,37                                                | 0,33                                           |                                               |
| Estonia  | 0,533                                             | 0,582                                               | 0,657                                          | 0,660                                         |
| Czech    | 0,459                                             | 0,466                                               | 0,702                                          | 0,600                                         |
| Slovakia | 0,428                                             | 0,528                                               | 0,673                                          | 0,633                                         |
| Hungary  | 0,423                                             | 0,520                                               | 0,686                                          | 0,599                                         |
| Latvia   | 0,420                                             | 0,604                                               | 0,649                                          | 0,612                                         |
| Poland   | 0,400                                             | 0,450                                               | 0,664                                          | 0,557                                         |
| Bulgaria | 0,366                                             | 0,500                                               | 0,627                                          | 0,548                                         |
| Moldova  | 0,325                                             | 0,512                                               | 0,553                                          | 0,510                                         |
| Ukraine  | 0,319                                             | 0,447                                               | 0,554                                          | 0,508                                         |
| Russia   | 0,319                                             | 0,561                                               | 0,520                                          | 0,515                                         |

As seen from these table 2 groups of postsocialistic countries by the index of economic development, which at the beginning of the independence had approximately identical starting conditions, characterized by large disagreements of values of *Ies*. These countries are in the process of alteration of all of constituents of the economic and social systems, however that of them, which quickly transformed production, science, education and business to the market, innovative model of development, quicker attained positive changes (Estonia, Czech, Slovakia, Latvia, Poland) [14]. For Bulgaria, Moldova and Ukraine this process passes slower, what the proper values of indexes of steady development testify – 0,548; 0,510 and 0,508.

In addition, as an analysis shown, for the last 20 years substantial stratification of countries of postsocialistic camp took place by the level of social and ecological development [14, p. 20]. Ukraine among the countries of postsocialistic space has the lowest level by the index of steady development, that is caused by the lowest values of index of the ecological measuring ( $ESI=0,447$ ) and economic measuring ( $Ies=0,319$ ). Must be noticed that an index of the social measuring of Ukraine is also low ( $Is=0,554$ ) – Ukraine is passed ahead by all postsocialistic countries, except Moldova ( $Is=0,553$ ) and Russia ( $Is=0,520$ ). For Ukraine and Moldova: low rating of political stability, indefinite social and economic policy (both countries substantially yield to other postsocialistic countries practically by all of indicators, except a few educational indicators and indicators, related to civil liberties.

If to examine such country as Poland, it occupies 6 place in rating of postsocialistic countries, passing ahead by the index of steady development Bulgaria, Moldova, Ukraine and Russia. Will notice that Poland has strong positions by the index of the social measuring ( $Is=0,664$ ), yielding to only such countries as Czech, Hungary and Slovakia. Such situation is confirmed a «bitter paradox» [15]: growth of GNP was not represented on welfare of people of Ukraine – so, if at growth of GNP of Poland per capita on 1000 US dollars duration of life grew on one year (duration of life in this country was increased on five years), in Ukraine growth of GNP brought to the declining of duration of life to nine months; for five last years the population of Ukraine was abbreviated on 2,3 million persons (4,3%), and a difference in duration of life of Ukrainians and citizens of countries of ES is near 10-11 years.

To the basic Ukrainian national problems of the future, solving of which is needed already today, belong [15]: 1) degradation of environment; 2) state of energy; 3) demographic situation; 4) changes of climate; 5) ecocatastrophes; 6) acceptance by the state and society conception of steady development. Thus the last task is the most difficult, because it needs intellectual boldness, strategic thought and responsibility before next generations.

It is possible to draw a conclusion as a result of analysis, that the globalization processes of economic and technological development resulted in sharpening of international competition at the level of not only separate producers but also whole countries. And Ukraine here chronically falls behind from most countries almost on all macroeconomic indexes which determine competitiveness.

Participating of industry of Ukraine in the processes of globalization is minimum so far: practically the domestic transnational companies which would work on global markets doesn't exist, part of the associated companies of world producers is low, level of international cooperation connections is also low[16].

However scientific and technical, production and resource potential of industry of Ukraine enables to realize the spectrum of advantages of international economic cooperation, in particular participating of domestic enterprises in realization of large international projects, development of transfer of high-tech and sale of licenses, creation of joint ventures from the production of goods, which belongs to fifth and sixth technological modes, and multinational corporations, and also participating of our specialists in work of international organizations on questions of development of industry.

Solving of problems which appeared before Ukraine on its way to steady development is impossible without creating the proper strategy of development. The „Strategy of economic and social development of Ukraine” is a document in which basic principles of steady development of Ukraine are described [17, p. 11], in which marked particular, that substantial changes are needed in the mechanisms of transformation processes, their substantial update, including such model of market transformations, where self-regulation is combined with effective government control. Strategy is directed on claiming of European principles and mechanisms of the socially oriented structurally innovative model of economic development, deep modernization of the Ukrainian economy, increasing of its competitiveness, which must become determining pre-condition of realization of difficult tasks of steady development which are determined by world community as strategy of development in XXI century [17, p. 13].

**Remedies.** From foregoing follows, that for Ukraine problem of exit from a crisis and providing of steady development needs complex decision both on state and regional, industrial and micro levels. Among primary tasks – determination of principal reasons of country crisis in the cut of separate regions and industries by the constituents of steady development and development of needed measures on overcoming of existent disproportions. As Ukraine became on the way of providing of steady economic development, a decision of this problems is both at the level of the state and at the level of separate regions, industries and enterprises must be submitted to base positions of conception of steady development.

Steady development must be examined as mutual co-ordination in development of economic, ecological and social subsystems, and at development of strategy of development of country (region, enterprise, industry) it is necessary to take into account the existent state by separate constituents with the purpose of development of measures, oriented to the removal of disproportions, balancing of separate constituents of steady development and achievement of positive dynamics of the system in optimum way on the whole.

Taking it into account there is a necessity of development of methods of evaluation of steady development on different objective levels (regions, industries and enterprises) in accordance with the basic requirements of conception of steady development of country. It in same time needs forming of the system of indexes-indicators for the evaluation of constituents of steady development for the different objects of analysis (industries, regions, areas, enterprises) and weight coefficients, which would take into account criticism of that or other constituent (indicator) with the purpose of development of the system of the proper measures, determination of priorities and their account at proper program development. Detalization of every constituent through the system of indexes on national, regional, industrial or micro levels can be examined as a basis for detailization of the system of measures on achievement of the needed level of every constituent of steady development.

Thus, it is possible to make a conclusion about the necessity of solving the existent problems by programmatic method which can be realized, also, by having a special purpose programs which belong to the effective instruments of providing of development and are one of elements of the system of the special purpose planning and management. Special purpose program is a complex of associated tasks, incorporated by the unique purpose and systematic realization, system of address social, economic, scientific and technical and organizational measures [18]. Special purpose program, as a constituent of economic methods of management, should include: description of the state and analysis of problem which needs solving; multilevel system of aims of realization with determination of methods of their achievement, system of indicators and methods of quantitative estimation; description of sources of resources necessary for this purpose, concrete performers and terms of realization; system of indexes for the estimation of results of its realization and efficiency. In addition, taking into account that achievement of the same results is possible in different ways and with the use of different sets of resources and performers, special purpose programs must be checked for the presence of optimum combination of the noted factors.

For providing of steady development of national economy on the whole and steady development of separate industries of national economy it is necessary to develop the complex of measures (special purpose programs) which

must be inferior to the decision of three basic blocks of questions – economic, ecological and social, that it can be presented by separate subprograms. If to appeal to Conception of the National special purpose program of development of industry of Ukraine on a period to 2017 year [16], must be noticed that its strategic purpose is: increase of competitiveness of economy and accessing of Ukraine in the circle of the economic developed countries of the world due to creation of modern, integrated in a world production and able to innovative development industrial complex. Realization of this program must take place by such priority directions of industrial development: optimization of pattern of industrial production with strengthening of role of internal market and speed-up development of scientific and hi-tech types of industrial activity; innovative technological modernization of production with the increase of layer of industrial productions of the newest technological modes with the deep processing and issue of products of eventual consumption; realization of energy safe models of development with increasing the use of untraditional and refurbishable energy sources, diversification of energy supply and forming of effective structure of energy making facilities, introduction ecologically safe technological processes.

At the same time, the programs of development of separate industries not always match the requirements of conception of steady development. Yes, the analysis of „Conception of the Government program of development of light industry on a period to 2011 year” shows that purpose and basic tasks of the indicated Program and conceptions of steady development match mainly, at the same time, in Conception among directions of development of light industry the ecologization of industrial production, did not find the reflection, it acquire the special actuality, because without stabilizing of the ecological system in Ukraine it is not possible to provide steady long-term economic development [16]. Did not get a reflection in Conception (except determining the problem of low salary of workers and sharp diminishing of young personal) questions of development of skilled potential of industry, which is the purpose of the greatest level and one of results of solving a problem of providing of steady development.

However, the program of development of light industry matched the maintenance requirements of steady development except the questions of economic block (economic subprogram), which contains the commodity of programs of support of production, technological retooling, raw material providing, development of markets, etc., must be complemented also with questions of social and ecological blocks (social and ecological subprograms). To this blocks questions, directed on the increase of salary of workers of industry, creation of social packages, studies and in-plant training level and others, so question of nature protection activity, development and introduction

of newest resource saving and ecologically technologies, development of ecologically safe production must be included.

**Recapitulation.** Consequently there is a question about finding out the ways and mechanisms of management of steady development of country, its leading out on the new higher level of existence. And for Ukraine which is in the search of this way, crisis of national ideology and strategy of development, which is delayed, can play a positive role. It is a role of „blank page” on which Ukraine has a chance to put produced by the world the best experience – the steady development of society, in which welfare of people, environment, natural resources and human capital, is in achievements of science, education, breakthrough technologies, high moral values, are the inseparable categories, isometric and such, that mutually enrich and complement each other.

It is possible to make a conclusion as a result of the conducted analysis, that for Ukraine at global level the most substantial problems is: strengthening of export orientation next to the mainly raw material structure of export and insufficient developing of internal market; insufficient diversification of sources of import of power resources; restrictions of access to the consumer markets of the developed states; high level of wearing out of capital assets; high part of „dirty” productions; low level of „ecological” consciousness of population; vagueness in relationships with eastern and western partners on an economic union; worsening of quality of national scientific and technical personals and constantly growing rates of moving across the border of skilled specialists; sharpening of social opposition and property inequality in society. The marked problems are in that or other degree peculiar for most postsocialistic countries.

The decision of these problems is possible during realization of strategy of steady development, which must provide harmonization and combinations of social, economic and ecological aims, their realization in the unique social-ecological-economical system. Violation of balance between separate subsystems verifies disparity of development of certain object (country, region, industry, enterprise) to conception of steady development. The result of economic development (growth) in the social-ecological-economical system is not only material, but also a complex of all necessities of man, including spiritual, social, ecological etc. One of basic directions of solving of problems which take place in anecological-economical sphere is the forming of the balanced system of nature usage and ecologization of technologies in industry, energy, building, agriculture, on a transport that must be realized by proper program of development. The ideas of steady development must find a reflection in new Constitution next to the plan of European integration and to become one of constituents of national project of development on the nearest prospect.

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## THE DECISION-MAKING PROCESS IN REGARDS TO THE ECONOMIC INTEGRATION OF SMALL AND MEDIUM BUSINESSES

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### **Keywords:**

Economic integration, risks,  
types of integration,  
decision-making process.

### **ABSTRACT**

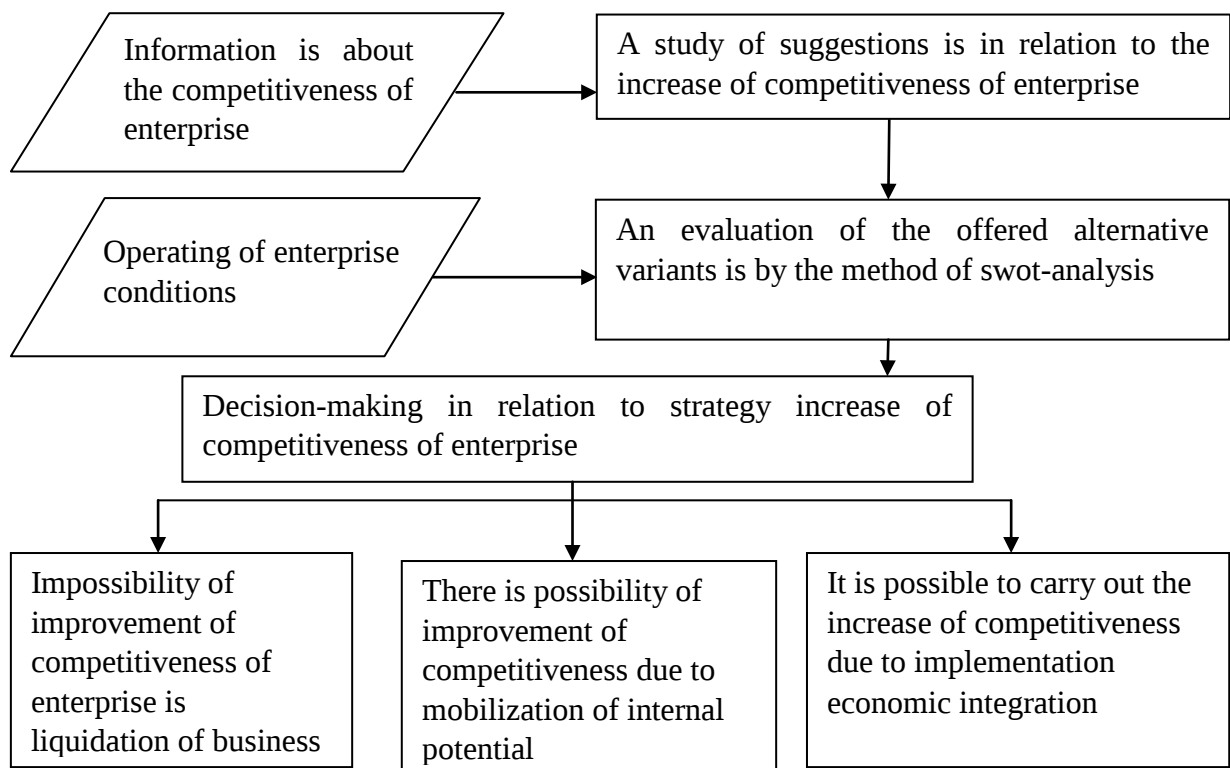
The article presents the results of the studies conducted on the economic integration formation processes for small and medium businesses; it also suggests a certain management algorithm of decision-making expediency in regards to integration development, and identifies positive and negative consequences of integration association development.

**Problem statement:** Increased competition makes an already tough business environment in a market economy more complex. As a result, Ukrainian businessmen associate various types of integration processes with the following perspectives: first of all, to minimize the risks of ineffective conduct of the case as a result of unforeseen short-term fluctuations; secondly, to strengthen their capacity for further development of small and medium enterprises in the context of globalization, financial crisis and other challenges.

**Unsolved problems:** The decision to join efforts with commercial partners and their specific forms turning in practice into a set of difficult analytical and strategic objectives, which are accompanied by the integrator in the first place (a private or legal person, whose initiative makes the problem rallying around the actual business project appear on the agenda), and then by other members of the future economic union.

**Analysis of recent research:** The key prerequisite for the approval of the participation in the economic integration is the evaluation of the competitiveness of small and medium businesses. Undoubtedly, the need for radical ways of its market position improvement proves to come in handy when it is recognized to be unsatisfactory. Under such conditions, the management led by the owner, based on the information that appears in their possession, formulates appropriate solutions to the challenges before them. One of the most attractive solutions is the association of business potentials which is being favored about 58% of managers of small and medium businesses.

**The key material:** Generalized decision-making process on the use of economic integration in order to improve the competitiveness of small and middle business in the sequence shown in Fig. 1. As you can see, the choice of competitiveness will depend on the existing set of alternatives.



**Fig.1. The consistency of the decision-making process in regards to the economic integration of small and medium businesses**

A specific set of measures in this regard to some key areas of success depends on the actual circumstances faced by small and medium businesses [1; 2]. Therefore, below is the outline of the prospects that can be expected in the context of economic integration:

Collective purchase of the materials, finished products and other inputs resources in increased volumes with the view of getting promotional discounts from producers or intermediaries;

The use of transfer pricing in mutual supply of parts and components within an integration arrangement;

The use of coordinated pricing on reclaimed markets without violation of applicable antitrust laws prohibiting cartel conspiracies;

Using temporarily freed capacity of economic partners and savings at the expense of their own investment funds;

Mobilization of temporarily unemployed labor and urgent conclusion of labor contracts with employees for fulfillment of contractors;

Getting big contracts from government agencies through coordinated action at consortium bidding or auctions;

Facilitating access to sources of funds by combining assets that are considered by financial and credit institutions as collateral object, etc. [10].

The checking procedures and improvement of the developed technology, the procedures that accompany its implementation, occurred during the execution of a number of consulting projects, commissioned by industrial enterprises in Ukraine. Since the solutions to the problems identified by internal reserves are not found, the owners were recommended to use the potential of economic integration [3; 4]. The decision at this point is to turn the preparation and organization of the company's cooperation with its elected business partner. Detailed analysis of economic practice has shown that it is bound to meet the expectations of the parties in case the following principles are precisely kept up with:

- voluntary choice of partner and the type of economic activity for optimization of integration, unification initiated by most household subjects without any pressure from outside;

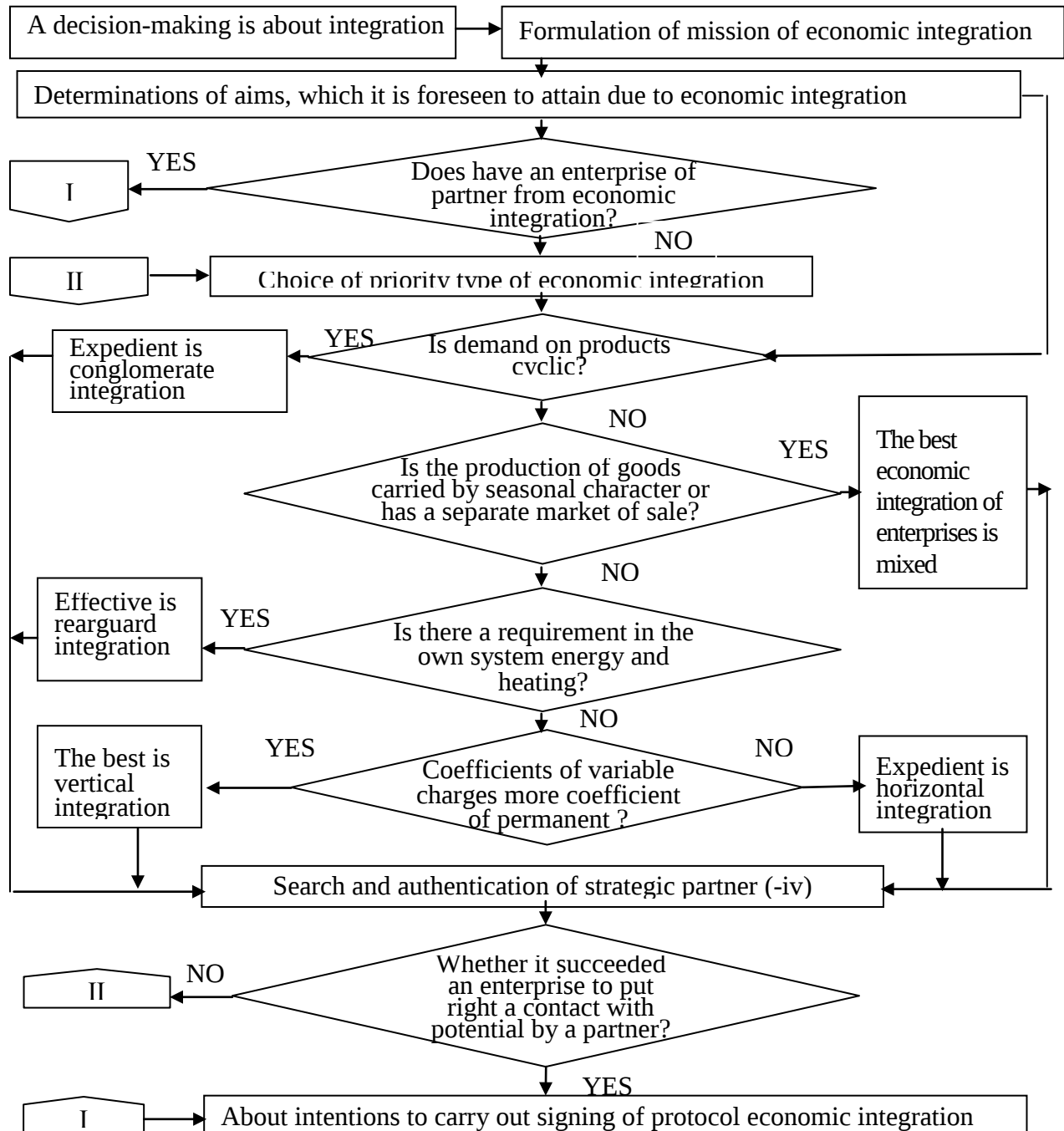
- organizational design of the integration interaction (the special design and analytical work that allows you to determine the effectiveness of future joint work). it was determined that during the development of organizational project the data to be obtained and analyzed has to have the following characteristics: a) goals and objectives of collective action, and b) the means and size of the combined financial and material resources to achieve stakeholder perspectives c) the legal form of a future integration, d) the content of competitive projects, including those whose content is mutually exclusive, and e) the total cost of implementation of integration measures, their structure and funding sources, f) the expected results of the cooperation [5; 6];

- continuous development of all aspects of business interaction. implementation of this principle include: deepening cooperation through periodic adjustments goals of integration and mechanisms to promote them, diversify, which manifests itself in expanding the circle of mutual service members integration process and a gradual increase in their level of complexity;

- information disclosure of the parties involved in the interaction. this provision requires institutional strengthening opportunities to get each side to the other information required to successfully implement its part of responsibilities within integration and provides a certain level of mutual trust;

- orientation of superior member enterprises to consolidate its final outcome and social responsibility [7].

The functional motivation of owners and staff members of the integration of education [8]. Based on the fact that the process of economic integration of the small and medium-sized businesses is rather complicated, it's required by necessity to divide it into certain stages: one that preceded the introduction of economic integration (pre-integration), integration and post-integration. The algorithm of this stage is shown in Figure 2.



**Fig.2. The algorithm of the implementation process of the pre-integration stage of economic integration of small and medium businesses**

The effectiveness of any management decision-making process that involves a radical change in the conditions and principles of doing business (especially when it comes to the prospect of regulation, coordination and even fusion structures was totally independent companies) is based on the principles of organizational design [9]. Therefore, it is considered appropriate to identify the following stage as the priority that should be achieved in the implementation of the first of these stages - formulation of its mission.

It is a guide for employees of small and medium-sized businesses in the definition of the causes and scope of its implementation, outlining in principle the range of duties and takes into account the interests of the major groups involved in the planning and implementation of economic integration. Moreover, the mission should consider sectorial specification of an entity's position in the market, the type of production, the behavior of competitors and consumer attitudes toward integration of planned actions.

Based on the above, it was most appropriate mission of economic integration was finalized, namely the conquest and retention of the leading competitive position on the market.

Later on, the goals small and medium-sized businesses seek are identified on the grounds of the mission, while still keeping up with the course of integration. It, in return, is an effective management tool if the following criteria are met. Firstly, the aim should be expressed in a precise form as abstract formulation is not able to be a guiding requirement to the activity and impede further control over it. The second criterion - the quantitative disclosure of the content purposes. This is clearly perceived by leaders at all levels, and performers, enabling the use of formal methods outlining the prospects for economic integration. Another requirement - the reality of achievement, which is caused by how the employees involved in the case agree with the proposed future for them, encouraged by the owner, physically or intellectually are able to translate plans into reality. Furthermore, formulating objectives to consider the features and compatibility of corporate cultures that emerge in enterprises that seek to joint action [10]. And this is nothing more than an additional characteristic goal - acceptability. The last criterion - flexibility (with time state of the business environment and attitudes of participants integration may change so that the target will require a minimum of clarification, if not require a full audit) [11].

On the grounds of evaluation of the competitive potential and outlined provisions of competitiveness the relevant objectives for the small and medium businesses economic integration were formulated. The most significant of them are given in Figure 3.

The next stage of introducing economic integration is the definition of a potential business partner. This issue can be solved in two different ways. The first is that in the external environment of small and medium-sized businesses there are already entities, the interactions with which are based on the principles of economic integration and the relationships with them only require formalization. Otherwise, as confirmed practice, it is difficult for management of small and medium-sized to immediately determine the best of them, since the beginning of the case is to identify a strategic partner (or partners - depending on the goal).

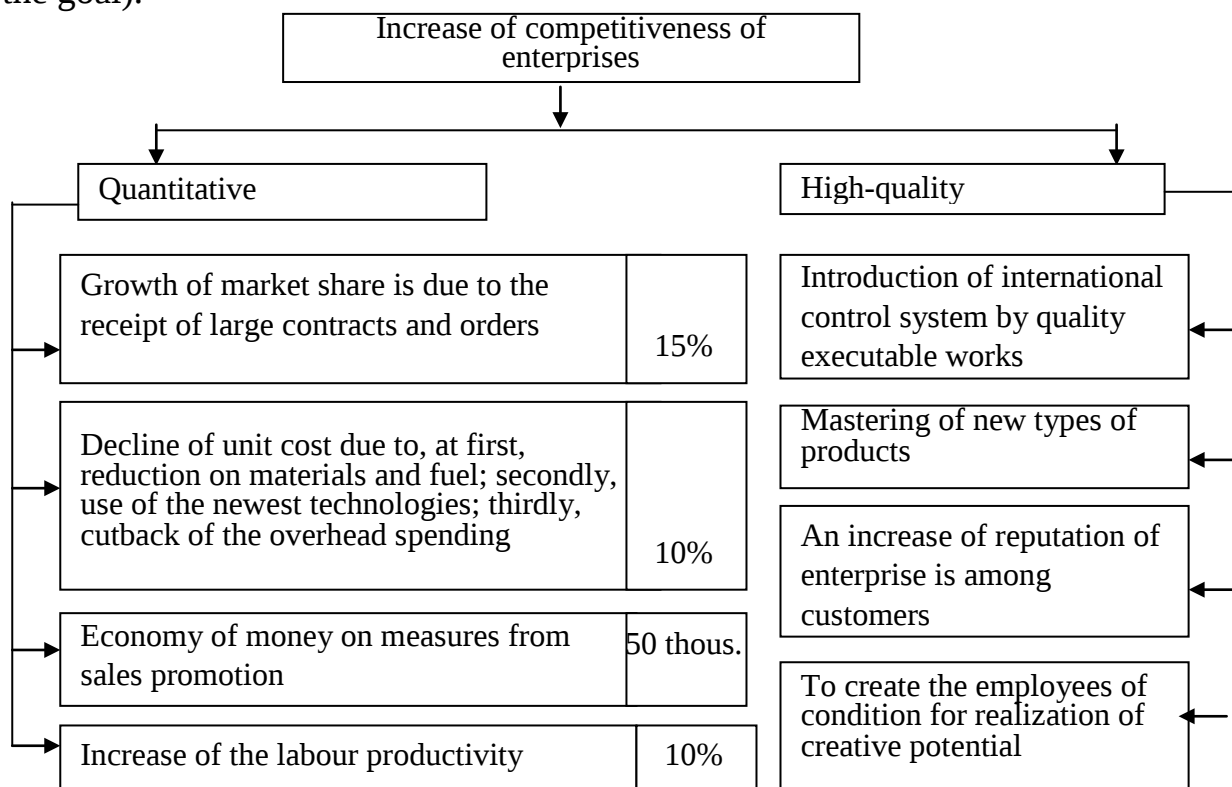


Fig.3. Target orientation for small and medium businesses

Analysis of companies from various industry specializations allows us to assert: for those of them that belong to the commercial sector and those providing domestic production services or even expedient to select the horizontal type of economic integration. Industrial enterprises SMEs effectively implement its principles conglomerate integration will minimize the risks of bankruptcy farms.

Equally important decision planned in the implementation of economic integration of a business policy - a set of values, regulatory requirements, criteria, constraints, and other components of the "rules" that treat all members equally consolidation.

In determining the appropriate boundaries of business activity, the policy in concentrated form reflects the views of the owners (and they are its authors) the conditions under which the possible implementation of the established mission - improving competitiveness.

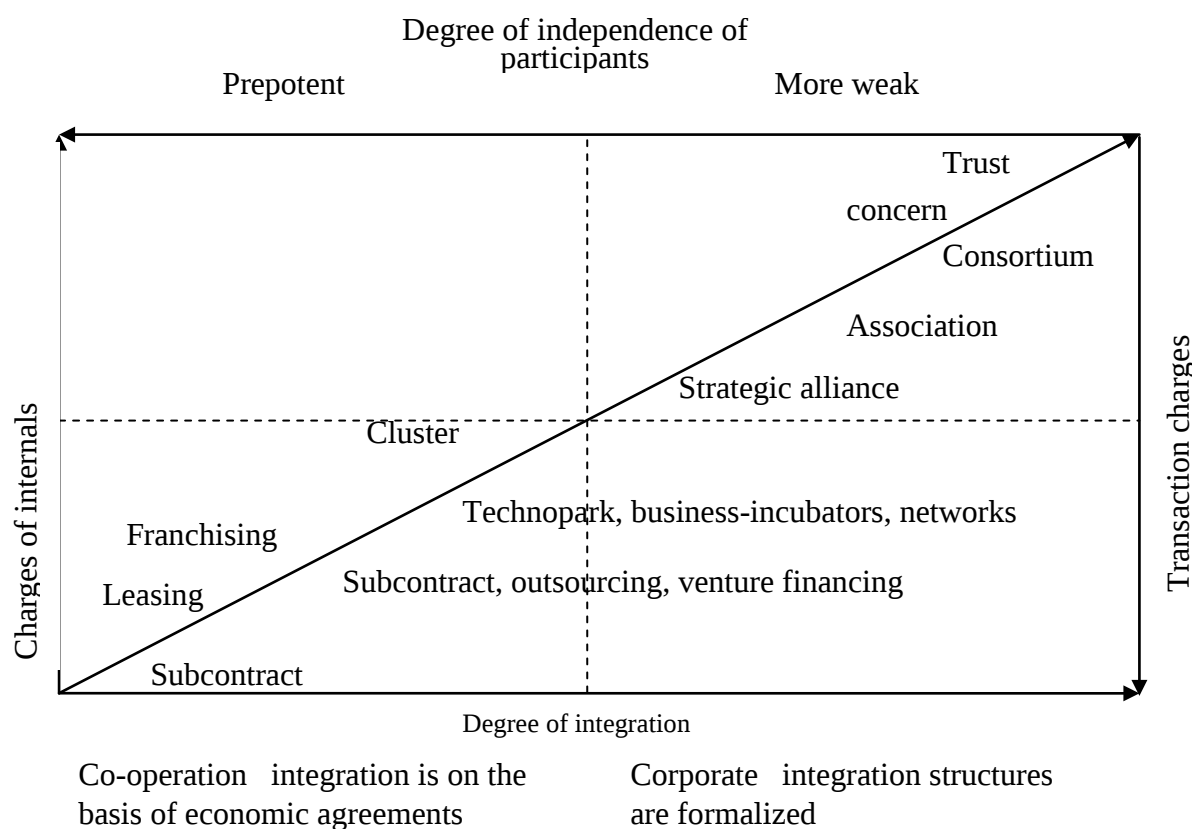
The crucial task of the second stage is to identify patterns of communication between partner companies. Constructive solutions in this regard are taken considering the prospects of achieving the goals, either by establishing joint activities without statutory "design relationship," or the creation of a legal entity. Developed about this classification is presented in Table. 1.

Table 1

**Characteristic patterns of integration relations of small and medium businesses**

| Integration model                |                            | Change of legal independence                          | Delegation of authority                                     | Tools for creating integration ties                                                                  |
|----------------------------------|----------------------------|-------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| With the establishment of entity | Merger                     | Both companies are losing their independence          | Shared authority                                            | Creation of a new company, which transferred the assets of companies that merge                      |
|                                  | Acquisition                | One company loses its independence, the other one not | Powers of one or more enterprises cease in favor of another | There is the elimination of one or more companies and their assets transferred to another enterprise |
| Without a legal entity           | Submission                 | Enterprises remain legally independent                | One of enterprises loses some powers                        | Gaining control is carried out by buying shares in other companies                                   |
|                                  | Consolidation              | Enterprises remain legally independent                | Companies lose some of their powers                         | The integration is carried out by buying corporate rights, or by their exchange                      |
| Without a legal entity           | Creating a holding company | Enterprises remain legally independent                | Part of the power is transmitted back ups                   | There is a transfer of shares of companies that integrate into a newly established enterprises       |
|                                  | Affiliate agreement        | Enterprises remain legally independent                | Powers delegated                                            | Signing contracts by parties involved                                                                |

The choice of a particular model of integration depends on the totality of the economic interests of its members, which in turn is determined by the consolidation of their property, the level of autonomy of participants, the degree of integration, the volume of transaction costs. In addition to the choice of organizational form of economic integration should also take into account the nature of the goals and possibilities for joint activities, frequency of interaction and involvement of participants in solving common integration problems; planned duration of cooperation. Given the stated criteria, the matrix of the economic integration alternatives selection of small and medium businesses is presented in Fig. 4.



**Fig.4. The matrix of the economic integration alternatives selection of small and medium businesses**

The process of designing economic integration is finalized by the prior agreement and clarification of the text, followed by the conclusion and (if necessary) the state registration of statutory documents between owners of small and medium-sized businesses - the initiator of intercompany collaboration, and selected business partner.

The main task of the next – post-integration - stage of the process is to develop a strategy for the integration of education. Its purpose is to achieve fundamental long-term goals and solving important problems of current enterprise by identifying areas of movement to them, and the sources of funds that provide continuity and positive dynamics of growth and development of competitiveness. Development strategy of economic integration based on established competitive potential of each participant consolidation and considers events that occur in the environment, the state of which the responsible person assessed in the dynamics. One of the main prospects associated with economic integration firms, is the ability to mix specific resources of the association. However, for effective exchange, leaders of small and medium enterprises should conduct appropriate reform business practices prevailing in the part that does not meet the new conditions of management. It is, above all, the organizational changes that in economic integration entities manifested through: changes in the structure and functions of the organization, improving marketing strategy, development of methods of management and personnel, upgrading the technological base, improving the mechanisms of motivation.

The success of the strategy of economic integration depends on the efficiency of communication systems of enterprises. Select the type of organizational structure formation requires integrated primarily to assess the possibility of their combination in order, first, to keep the unique administrative skills, knowledge, core competencies, quality and speed to achieve synergies and secondly, optimum combining organizational culture. Analysis of known agreements on economic integration of small and medium-sized businesses has provided grounds for the conclusion that the decision in favor of one or another type of organizational structure is based on the main function of selecting the type of integration (Table 2).

Table 2

**Types of organizational structure for the integration formations of small and medium businesses**

| Type       | Formation factors                                                   | Recommended structure type |
|------------|---------------------------------------------------------------------|----------------------------|
| Horizontal | Members of the integration process are scattered                    | Divisional-territorial     |
|            | Serviced by different market segments                               | Divisional-consumer        |
|            | Significant differences in production technologies                  | Divisional-products        |
|            | Different types of organizational structures                        | Divisional or matrix       |
| Vertical   | The level of technology integration:                                | Line-functional            |
|            | - total integration                                                 |                            |
|            | - partial integration                                               | Line-staff                 |
|            | Territorial branching of enterprises                                | Matrix                     |
|            | The degree of participation in the production of the final product: | Line-functional            |

*Continuation of Table 2*

|       |                                                                |                           |
|-------|----------------------------------------------------------------|---------------------------|
|       | - full participation                                           |                           |
|       | - partial participation                                        | Line-staff                |
|       | Different types of organizational structures                   | Matrix                    |
| Mixed | The need for coordination in the following areas:              | Holding                   |
|       | - financial                                                    |                           |
|       | - marketing or production                                      | Conglomerate              |
|       | The need for coordination of integrated affiliation in general | Coordination              |
|       | Focusing on complex projects and large orders                  | Project or program-target |

**Conclusions:** Based on the above information, it is important to stress the need for continuous monitoring of the process of economic integration (as during its creation and further the process of joint action), as well as implementation of its results of adjustment goals, objectives and ways to achieve them and solution.

Implementation of the above methods has confirmed its soundness. Based on the results obtained during the study concludes, the decision to merge even a fraction of their assets with commercial partner in the joint business projects for small and medium businesses is a complex and multistage process. Each of them has to be taken into account under a number of restrictions and formulated criteria. In their respect, constructive initiatives will improve the market position of partners, which simultaneously means of strengthening their competitiveness.

The tests confirmed the performance practice developed technology movement to the desired goal of economic integration of the idea to its implementation, through solving the problem of determining a strategic partner to the joint plan of action in the real world market segment.

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## STAGES ERFOLGREICHE MANAGEMENT VON ORGANISATORISCHEN ÄNDERUNGEN IN DER UNTERNEHMEN

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### STICHWORT:

Veränderungen im Management der Unternehmen, die Verwaltung von organisatorischen Veränderungen, Planungsänderungen, Organisation von Arbeiterteams Änderungen, die Motivation der Mitarbeiter zur Umsetzung, Überwachung organisatorischen Ergebnisse ändert.

### ZUSAMMENFASSUNG

Die Besonderheit der Verwaltungsabläufe ist es, das Interesse der Spezialisten zu erhöhen, um zu lösen spezifische Führungssituationen in einer sich verändernden äußeren und inneren Umgebung der Organisation.

Dies wird vor allem in der Tatsache manifestiert, dass Veränderungen in den Unternehmen erfordern sorgfältige Prüfung aller möglichen Situationen, um Managemententscheidungen treffen wissenschaftlich genau, dynamisch für ausgewogenen und nachhaltigen wirtschaftlichen Mechanismus. Unternehmen ist ein dynamisches System, und es ständig ändert sich ständig. Nach Änderung und alle seine Komponenten, dem Management und Steuerungstechnik, Ausrüstung, professionelle, Qualifikation und Altersstruktur der Mitarbeiter, Organisationsmanagement Struktur, Ziele, Produkte. Die Kenntnis der Ursachen für die Veränderung, können Sie Phasen für die erfolgreiche Einführung und Umsetzung zu entwerfen organisatorische Veränderungen im Unternehmen.

**Problemformulierung.** Unternehmen ist ein dynamisches System, und es ständig ändert sich ständig. Nach Änderung und alle seine Teile: Herrschenden und Beherrschten System, Technologie, Engineering, professionelle, Qualifikation und Altersstruktur der Beschäftigten Organisationsmanagement Struktur, Ziele, Produkte. Alle Änderungen sind dauerhaft, miteinander verknüpft und werden in der Regel mit der Teilnahme von der Organisation durchgeführt. Änderungen erfordern Innovationen, die oft zu einer Veränderung der Ziele der Organisation zu führen, Organisationsmanagement Struktur, Technologie, Prozesse, entwickelt Produkte, Verwaltung von Industrie und Wirtschaft.

Organisatorische Veränderungen - jede Änderung in der ein oder mehrere Elemente auf eine jedem Stadium des Lebenszyklus, der sich in der Umwandlungsspannung manifestieren Unternehmen und ändern Sie Größe, Umfang und Ziele der Aktivitäten [1, c. 12].

Interne Ursachen der Veränderung sind: die Notwendigkeit, die Managementstruktur zu ändern; Veralterung der Produkte, Engineering und Technologie-Unternehmen; verringern die Produktivität; Nicht vorläufige Transformation durchzuführen; wachsende Unzufriedenheit mit den bestehenden Mitarbeitern als Arbeitsorganisation; verringern organisatorische Effizienz (Wirtschaftlichkeit, Liquidität, Solvenz).

Externe Ursachen der Veränderung sind: die wirtschaftliche Lage und Zustand Regulierung; ändernden Gesetzen und Regulierungsbehörden; Wettbewerb; Kaufkraft Verbraucherprodukte; die Notwendigkeit, neue Lieferanten zu finden.

Offensichtlich wissen die Ursachen der Veränderung, können Sie Phasen für erfolgreiches Design Einführung und Umsetzung von organisatorischen Änderungen im Unternehmen. Es ist daher dringend die Frage der Verbesserung der Verwaltung ändert sich bei der Firma.

**Analyse der jüngsten Forschungen und Publikationen.** Auf der Basis von verschiedenen wissenschaftlichen Quellen es sollte angemerkt werden, dass heute die Lösung dieses Problems in wissenschaftlichen Arbeiten widerspiegeln Wissenschaftler wie A. Kuzmin, I. Petrov, V. Polishchuk, V. Pechenezhsky, Grün M. Shirokov, G., Nozdrina L., Yashchuk B., O. Polotay und viele andere. Allerdings sind die meisten Autoren zeigen as Wesen des Änderungsmanagement über Projektmanagement. Entwicklung und Umsetzung von Projekten nur ein Element eines komplexen Prozesses der Bewältigung des Wandels im Unternehmen. Geführt Studien haben ergeben, dass ein umfassendes Change Management-Prozess durch die Implementierung von Management-Funktionen an den inländischen Unternehmen wurden nicht untersucht und relevant sind, was die Wichtigkeit dieser Studie.

**Das Ziel dieser Arbeit** ist es, Technologien für die Verwaltung von organisatorischen Veränderungen zu entwickeln Unternehmensplanung durch diese Änderungen, die Organisation von Kollektiven und einzelne Arbeitnehmer Performer, motivieren Mitarbeiter, organisatorische Veränderungen Überwachungsergebnisse ändern und Regelabweichungen und Fehlschläge bei der Umsetzung der organisatorischen Veränderungen identifiziert.

**Präsenten Hauptmaterial.** Das Konzept der "Change-Management" ist mit gekennzeichnet Position bekannten Ansätze im Management [1, c. 45 – 46]:

1) bis Prozeption Ansatz Position ist Change Management als Prozess der Realisierung gesehen bekannt Managementfunktionen (Planung, Organisation der Interaktion, Motivation und Kontrolle) von denen jedes selbst ein Prozess sind;

2) mit dem Systemansatz, Change-Management - den Mechanismus der Aufbau von Beziehungen Unternehmensumgebung durch den Einfluss der Umwelt auf das Unternehmen, und im Gegenteil;

3) um Situationsansatz, Change Management zu positionieren - ein Prozess, bestehend aus den folgenden Elemente: das Verständnis der Notwendigkeit von Veränderungen in Richtung einer bestimmten Führungssituationen, die Fähigkeit Management bieten positive oder negative Effekte von Änderungen in dem spezifischen administrative Situation; Bestimmen der Richtung der Faktoren, die wesentlich in dieser Situation sind und wählen Sie die optimale Methode, die für die Erreichung der Ziele am wirksamsten sicherstellen würde diese Umstände;

4) aus der Sicht der Verhaltens Ansatz wird Change Management auf die Einheit der Arbeiter auf der Grundlage in den Prozess der Veränderung und Erfolg Änderungen durch das Verhältnis von Arbeitnehmern zu bestimmen ändern Ziele und Mittel der Umsetzung;

5) vom Standpunkt kontextuellen Ansatz beinhaltet Change Management Analyse externe und interne Unternehmens organisatorischen Kontext, definiert Chancen und die Richtungen der Veränderung des Unternehmens;

6) die Kompetenzansatz zu positionieren, Change Management einführt Arbeitnehmer haben die erforderlichen Fachkenntnisse und beruflichen Fähigkeiten, um diese Ziele zu erreichen, ändern;

7) Position adaptive Ansatz, Change Management - der Prozess der Anpassung der Unternehmen und die Dynamik der Umgebung zu verändern.

So Change Management - ein Verfahren, mit Druckfaktoren und verursacht heimischen Medien, einschließlich der Einleitung der Änderung: Definition der Notwendigkeit von Veränderungen, die Planung, Organisation (Gegründet Änderungen unterstützen Veränderungen) bilden ein System zu ändern, Steuerung, Regelung Veränderungen und deren endgültige motivieren Umsetzung.

Managing Organisational Change Management ist eine spezifische Funktion. Also Technologie-Management sollte durch allgemeine Verwaltungsfunktionen zur Verfügung gestellt werden, umfasst die folgenden Schritte: 1) Planung organisatorischen Veränderungen; 2) organisieren Teams Mitarbeiter und einzelnen Künstlern - die Teilnehmer der organisatorischen Veränderungen; 3) Motivation Arbeitnehmer - Mitglieder der organisatorischen Veränderungen; 4) Kontrolle der Ergebnisse der Organisationsänderungen und Regelabweichungen und Fehlschläge bei der Umsetzung der organisatorischen Veränderungen identifiziert. Betrachten jeder mit dieser Stufen.

I Phase. Planungsänderungen in der Gesellschaft abgedeckt zwei Ebenen - strategische und wirksam. Strategische Planung Änderungen - langfristige Planung, welche kodifiziert und mehr oder weniger viel versprechend Vollzugsaufgaben formalisiert das Unternehmen, die alle Aspekte seine Aktivitäten und zielt auf die Entwicklung, Organisation und Durchführung von Änderungen durch richtet strategische Pläne, Projekte und Programme.

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In den äußeren und inneren Umgebungen des Unternehmen gibt es bestimmte Bedingungen, die Unternehmen strategisch zu fördern Planungsänderungen [2, c. 84]:

- Die Notwendigkeit, auf wechselnde Bedingungen der äußeren und inneren Umgebung des Unternehmens zu reagieren;
- Die Notwendigkeit, unterschiedliche Bereiche des Unternehmens in Bezug auf die Dezentralisierung und Diversifizierung zu bringen;
- Die Notwendigkeit, neue Einrichtung oder Unterstützung bestehender Wettbewerbsvorteile, die Wettbewerbsfähigkeit der Unternehmen;
- Verfügbarkeit von qualifizierten Führungskräften in der Lage, mit dem System strategisches Management, komplexe Probleme zu lösen;
- Die Entwicklung von Beziehungen mit Unternehmen, die das System der strategischen verwenden Planung;
- Verfügbarkeit von Informationen zur Verfügung, um die Stärken und Schwächen des Unternehmens zu untersuchen, Umwelt, Wettbewerbsbedingungen;
- Stärkung der innovativen Prozessen, Generierung und rasche Entwicklung der Unternehmen von neuen Ideen;
- Die Notwendigkeit für die Einführung von High Führungskultur konzentrierte sich auf Verhinderung Widerstand gegen Veränderungen und Entwicklungsunternehmen zu fördern.

Operative Planung Veränderungen - eine Suche und Koordination und die wirksamsten Mittel über die Umsetzung der Strategie verabschiedet Änderungen und Entwicklungsorganisation. Operative Planung Veränderungen in der Organisation bietet:

1) Veränderungen der Produktionsplanungsprogramm: Aufgaben für die Herstellung von bestimmten Produkten in natürlichen und monetär basierte Qualitätsverbesserungsprogramm und die Rechtfertigung der Produktionskapazität des Unternehmens;

2) Planung Veränderungen in der Technologie und Technik-Organisation, die für die Gründung und Entwicklung neuer Produkte, die Einführung neuer Techniken und Technologien misst;

3) Planungsänderungen in Arbeit und Personal, das Produktivitätswachstum, die Anzahl der Mitarbeiter nach Kategorie, Gehaltsabrechnung, Durchschnittslöhne der Arbeitnehmer bei der Berechnung der zusätzlichen Bedürfnisse der Arbeiter und Angestellten und die Quellen der Unterstützung;

4) Änderungen der Planung Logistikunternehmens: Bestimmung der Bedürfnisse in logistischen Ressourcen und Quellen der Unterstützung und Zahlungen an die Stückkosten von Rohstoffen, Brennstoffen und Energie zu verringern;

5) Änderungen bei der Planung Kosten, Umsatz und Profitabilität: die Kosten der wichtigsten Produkte, brutto, Produkt und Vertrieb; Schätzungen der Produktionskosten; Gewinn und Rentabilität nach Art der Tätigkeit und dem übrigen Unternehmen;

6) Veränderungen in der Finanzplanungssoftware: den Bedarf an Betriebskapital, das Gleichgewicht von Einnahmen und Ausgaben;

7) Änderungen in der Sozialplanung Entwicklungsteam: Maßnahmen der Arbeitsbedingungen, Freizeit und Leben der Mitarbeiter zu verbessern.

Jede der Optionen Plan Änderungen in der Unternehmensstruktur unterscheidet sich von anderen Methoden, Ziele zu erreichen, notwendigen Ressourcen, Termine und Interpretieren.

II Phase. Organisation von Veränderungen in der Geschäftsleitung des Unternehmens - integriert ein Prozess, der die Bildung einer effektiven Führungsstruktur und Systeme der organisatorischen Verbindungen zwischen den Einheiten der Organisation bei der Einführung und Umsetzung von Änderungen beinhaltet.

Organisation von Change-Management-System besteht aus fünf miteinander Artikel:

1) Arbeitsteilung bei der Durchführung von Änderungen - die Gesamtzuteilungsprozess in der Organisation für individuelle Aufgaben;

2) Erstellen Abteilungen - Gruppierungsprozess Arbeiten und Tätigkeiten in verschiedenen Abteilungen Organisationen (Teams, Gruppen, Sektoren, Divisionen) bei der Umsetzung von organisatorischen Änderungen;

3) Delegation von Befugnissen - der Prozess der Übertragung der Hauptsitz seiner Arbeit und der damit verbundenen organisatorischen Veränderungen Sklave, der Verantwortung für die Umsetzung erfolgt;

4) eine Reihe von Steuer im Zuge der organisatorischen Veränderungen - bestimmen die Anzahl der Mitarbeiter direkt unterstellt diese Manager, ändern verbringt;

5) Koordinierung der Arbeiten - der Prozess der Aussöhnung zwischen allen Teilsystemen der Organisation für organisatorische Veränderungen.

Für das Change Management Mannschaft wichtige Änderungen - speziell ausgewählte Gruppe von Mitarbeitern in Kombination mit der Kreativ-Team um die Umsetzung der Änderungen zu gewährleisten. Bei der Umsetzung organisatorischer Veränderungen teilnehmen können: Funktionsteam, die erstellt basierend auf einer klaren System der organisatorischen Führung und Unterordnung, bestehend aus Spezialisten führen vielfältigen Funktionen (Finanzen, Vertrieb, Marketing).

Übergreifendes Mannschaft bringt Experten aus einer Reihe von Organisationseinheiten, deren Kompetenz ermöglicht es Ihnen zu finden und umzusetzen Lösungen für die komplexesten und schwierigsten Probleme zu gewinnen; Selbstverwaltung Mannschaft besteht aus Profis, die ein hohes Maß an Professionalität in einigen Bereichen haben, sich gegenseitig ergänzen [3, c. 254]. Die Effektivität der Mannschaftsarbeit von drei Indikatoren gemessen: der Wirkungsgrad jeder der Mannschaftmitglieder bei der Ausübung von Funktionen, die Berufspflichten und der Wirkungsgrad des Teams als Ganzes, der Wirkungsgrad der Interaktion mit der Umwelt- Mannschaft zugeordnet [5, c. 12].

III Phase. Motivierend organisatorische Veränderungen im Unternehmen - Management-Funktion, die ist ein Prozess der bewussten Einfluss auf das Verhalten der Arbeit, um die Ziele und die Ziele der organisatorischen Veränderungen zu erreichen. Das System der Motivation organisatorische Veränderungen umfassen die folgenden Gruppen von Motivationen Faktoren wie Material, Arbeit und den Status der Motivation [4, c. 162].

Im Herzen des Finanz Motivation wird die Bedürfnisse der Mitarbeiter, welche in dem Bemühen um Verbesserung des Wohlbefindens ihrer materiellen als Folge der Änderungen. Finanzielle Motivation bietet finanzielle Anreize in Form von Lohndifferenzierung, Boni und zusätzliche Bezahlung, soziale Unterstützung.

Die Grundlage für die Arbeitsmotivation - Zufriedenheit und den Wunsch, in der Regel arbeiten, um in dieser Organisation, dieses Mannschaft oder den T Mannschaftwechsel zu arbeiten und die Position. Die Arbeitsmotivation sorgt für eine effiziente Arbeitsorganisation und Arbeitsbedingungen in Form von Rateneinstellung, die Schaffung Abwasserentsorgung, psychologischen und ästhetischen Bedingungen, Einbeziehung der Mitarbeiter in die Entscheidungsfindung, Delegation von Befugnissen bei der Umsetzung der Änderungen.

Die Grundlage des Status Motivation ist der Wunsch der Mitarbeiter Karriere bei der Umsetzung Änderungen an den Bedürfnissen in der Anerkennung von Leistungen erfüllen zu erfüllen. Der Staat schließt Motivation moralische Ermutigung und Weiterbildung sowie Karriereplanung und -steuerung. Moralische Erziehung Förderung und bietet öffentliche Anerkennung der Leistungen und Erfolge bei der Umsetzung der Arbeitskraft ändert Umschulung und Weiterbildung. Karriereplanung und Steuerung beinhaltet die Bildung von langfristigen Personalentwicklungspläne bei der Umsetzung Änderungen an Karrieremöglichkeiten

IV Phase. Kontrolle der Ergebnisse des organisatorischen Wandels - die Art von Management, die Verwaltungsgesellschaft, der Beweis seiner Loyalität Managemententscheidungen bietet von der Richtung der Einführung von Änderungen und Ausübung der laufenden Anpassungen im Zuge der organisatorischen Veränderungen. Kontrolle über organisatorische Veränderungen - das System der Überwachung und Kontrolle der Einhaltung Prozesssteuerung Betrieb des Facility-Management hat eine Entscheidung über die Ergebnisse der Verwaltung Einfluss auf das verwaltete Objekt Erkennung von Abweichungen in der Umsetzung dieser Entscheidungen. Diese Kontrollgruppe sind Führungskräfte der verschiedenen Ebenen der Verwaltung, ein separates amtlichen Stellen (Abteilungen) des Unternehmens oder Betriebs, Steuerobjekte - verschiedene Arten von organisatorischen Veränderungen.

**Abschlüssen.** Vier Hauptphasen für das erfolgreiche Management von organisatorischen Veränderungen im Unternehmen sind: Planung Veränderung, die Organisation von Mitarbeitergruppen und Einzelkünstler, Mitarbeiter zu motivieren, die Ergebnisse der Überwachung der organisatorischen Veränderungen zu ändern. Planung ist für taktische und strategische Planung organisatorische Veränderungen im Unternehmen verwendet. Organisation von Gruppen von Arbeitnehmern beinhaltet die Schaffung eines effektiven Teams Veränderungen im Unternehmen. Motivation der Mitarbeiter ist eine Möglichkeit, sie zu ermutigen, organisatorische Veränderungen. Monitoren-Ergebnisse der organisatorischen Veränderungen hilft, die Wirksamkeit der Veränderungen zu identifizieren und Trends die erforderlichen Anpassungen. Die Kombination der oben genannten vier Elemente ist die Grundlage der erfolgreichen Change Management im Unternehmen.

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## INFORMATION AND ANALYTICAL SUPPORT OF MARKETING ON THE PRINCIPLES OF APPLIED STATISTICS

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### **Keywords:**

marketing, management,  
statistics, system  
interconnections, rationale  
and support managerial  
decisions.

### **ABSTRACT**

The article highlights the theoretical and methodological principles of the construction and the use of statistical support of marketing activities - SSM. The principles of marketing, its mission, objective, goals and ways of achieving them are described. The role of methodology of statistical research in the information and analytical support of the achievement of objectives is covered. The characteristic of the essence, content, stages of construction and use of the SSM according to the principles of system analysis, the role in the use of certain management functions.

**Problem statement.** In the current context of economic development, new requirements are reasonably imposed on statistical science and practice in order for statistics to become an efficient tool of good management. There is an increase in the urgency of multiple and integrated use of statistical methods in solving management tasks based on the system of statistical support for management of the economy on the principles of applied statistics methodology.

Using statistical methods enables to consider many problems in management from the angle of exact quantitative representation with a qualitative content based on real information support for calculations according to user needs.

This guarantees a creative approach to performing specific management tasks, seeking out new methods for improvement of quality and reasonableness of managerial decisions, developing measures aimed to improve efficiency in all fields of activity.

The above is also true to a certain extent of the scientific concept of marketing and the manufacturing and sales activities management system resting on it.

**Review of recent advances and papers.** The issue of building and using a system of information and analytical support for management of the economy is dealt with in a significant number of papers.

In particular, a sizable contribution to solution of these issues was made by such scholars as Blank, I. O. [1], Heiets, V. M. [2], Holovach, A. V., Zakhochay, V. B. [3], Hrytsyak, N. V. [4], Bazylevysh, V. D. [6], Yerokhin, S. A. [7], Mantsurov, I. H. [8], Osaulenko, O. H. [9], Serkutan, T. V. [10]. Their works contain methodological provisions used when appraising the status of socioeconomic development, stages, methods and organization of building an information base, system of indicators and techniques for analysis of development mechanisms and trends as a base for rationale for managerial decisions.

**Previously unsolved parts of the general problem.** At the same time and with minor exceptions, there remain unsolved and call for studying the problems of building and using information and analytical support for management based on statistical principles with respect to individual types of economic activity according to the needs of a socially-oriented market economy, in particular, in conformity with the marketing concept, the manufacturing and sales activities management system resting on it.

There is a lack of well-trained specialists and experts with deeper knowledge of techniques for using statistical analysis findings in the course of substantiating and supporting managerial decisions.

**The research goal** is to deal with the theoretical and methodological framework for building and using a system of marketing statistical support (MSS), in particular, the possibility of correct and purposeful use of the statistical analysis methodology in the course of substantiating and supporting managerial decisions regarding manufacturing and sales activities.

**Paper's objective.** The set goal made it necessary to solve **scientific problems** of theoretical, methodological, and practical nature, in particular:

- proving the importance, necessity and feasibility of utilizing the statistical analysis methodology to build and use a system of information and analytical support for marketing;
- rationale for the program-methodological principles of a statistical study within the marketing system;
- proving the necessity and ways of taking the system approach when studying processes and phenomena, which enables to take account of direct and inverse relationships among the marketing system structural constituents;
- describing the body of knowledge needed to build and use a system of information and analytical support for marketing;

- dealing with the content and key features of statistical support for marketing as to the essence of management, purpose of building a system of statistical key figures, identifying factors, building information and methodological support, using statistical analysis findings to substantiate and back managerial decisions.

The research methods are based on general scientific principles and basic concepts of economic theory, philosophy, marketing and statistical science.

The methodological background consists in a methodological approach according to which processes and phenomena of socioeconomic development are analyzed in their interrelation, interdependence and development.

The research subject determines using statistical methods and models and statistical analysis findings to identify the major thrusts in management improvement in order to increase their efficiency with due account for real reserves.

**Key findings.** Marketing can be defined as systematic influence on a certain object or on its units in order to ensure the vital activity and achieve the ultimate goal (outcome). Such objects are termed managed, and the package of measures meant to support or improve their operation subject to the desired goals is called management.

Objects of management in economy include the state, regions, types of activity, branches, population, enterprises etc. in their inherent distributions, as well as in combination of distributions according to the management functions. Information interaction between managed and managing systems is carried out primarily based on the activity statistical analysis findings. The operation purpose is to maintain the development set-up parameters. The purpose of the appropriate information processes is to ensure efficient marketing management of a predefined object subject to the desired goals [3].

According to the strategic marketing principles, the marketing object's mission is stated covering notions, instructions, tasks, and challenges.

Defining clear goals is a condition of results based marketing. Appraisal of results provides for division of a phenomenon into single parts in interrelation with appropriate factors and means towards ends; determination of the impact of factors on results, as well as comparison of results with an appropriate base, in particular, criteria [6]. The latter underlies feedback, which means an inverse effect of marketing results on the process of such marketing.

Goal (criteria)-based appraisal of results is associated with appraisal of resources utilization and generally of the marketing system effectiveness. Also, appraisal of the situation of a marketing object in a competitive environment and of own competitive ability holds a prominent place [6].

On that ground, measures are developed that are related to flexible response to effects of factors of the external and internal environments to achieve the set goal.

Division of a system into subsystems makes it possible to ensure a system approach to marketing in the form of interaction of the system's single parts in certain integrity to achieve the set goal of individual subsystems, and on that basis — the goal of the system on the whole and the mission performance.

The marketing objectives within the system can be achieved through performance of its certain functions, namely those of planning, organization, regulation, control, accounting, and analysis.

Marketing tasks can be divided into two classes – strategic and tactical.

The *strategic* ones include tasks associated with selection of a structure of communications among subsystems, planning of behavior of subsystems and the system on the whole, the system behavior analysis, analysis of the results of its operation.

The *tactical ones* embrace mainly tasks related to implementing plans and strategies identified as strategic tasks under circumstances of inevitable situations unforeseen by planning.

Scientifically grounded marketing provides for:

- learning economic laws and specifics of their operation under specific conditions;
- using scientific analysis techniques and methods based on statistical methodology;
- using up-to-date facilities for acquisition, processing and efficient use of information; and
- availability of skilled competent personnel able to use in practice all new offered by science.

Consider the executive summary of the marketing activity management program of a manufacturing enterprise [8]:

*Mission* — provision of consumers of own and other countries with products.

*Chief goal* — transformation of the firm into a recognized supplier of products into the foreign and domestic markets and ensuring recognition of the trade mark in these markets.

*Marketing objectives:*

- strategic — improving competitiveness in the domestic and foreign markets, foreign markets share gains;
- financial — ensuring integrity of their investments to the firm owners and growth if their profitability, increase in financial stability of the enterprise up to the statutory indicators and standards;

- manufacturing— increase in output, in particular, due to export of products, rise in the manufacturing quality level up to the international standards, decrease in the level of manufacturing costs;
- social — attainment of an optimum staff number level and structure, rise in the level of productivity and interest of personnel in the firm's performance results;
- organizational — changes in the enterprise's organizational set-up in conformity with the development strategic objectives.

*The ways of achieving the marketing objectives are as follows:* development of a product strategy, improvement of the financial marketing system, development of a marketing strategy, introduction of a cost analysis strategy, building production capabilities, development of resources-based and innovation strategies, development and implementation of an effective product quality management system, an employee incentive program, a personnel selection and load system, implementation of a strategic marketing system and an adaptive organizational set-up, improvement of the labor protection system.

The prerequisite for the efficient use of the marketing tasks consists in availability of information on the quantitative description of marketing objects coupled with the qualitative content, most notably — development trends under the influence of factors of the internal and external environments [Yerina, 2004].

This is due to the fact that market transformation of Ukraine's economy and its further integration into the global economic area take place in the context of modern economic development trends, enhancement of integration processes in all spheres of human activity. Economic, political, social and information processes become more closely intertwined; manufacture and science, culture and everyday life interact more intensively. The present-day organizations, enterprises, corporations are integrated into transnational companies, into information systems that provide services to the world market, as well as into intergovernmental projects covering quite a number of state-owned and private corporations.

Today, it is impossible to consider economic processes separately from more general processes (ecological, political, social and the like); it is essential to take account of numerous direct and inverse relationships. This makes it necessary to a system approach, which provides for studying an economy as a whole, enables to take into consideration numerous direct and inverse relationships, interaction among individual structural pieces, identify the role of each of them within the general process of operation of economy and, vice versa, observe how the system in general influences its individual components.

At the same time, it is important to use statistical analysis of economic processes that should be based on the system approach principles, which creates conditions for optimization of both the structural pieces of the economic system, and the economy overall. Therefore, using system analysis tools in the course of a statistical study is a necessary foundation for substantiation of marketing decisions.

Contemporary society needs certified analysts, statisticians, experts, advisors and consultants versed in economics and able to [7]:

- collect statistical information on socioeconomic development at the macro-, meso- and micro-levels, systematize and sort it through;
- develop and use techniques for economic information procession, consolidation, and analysis;
- creatively use information and analysis findings, draw conclusions and generalizations on its basis, substantiate marketing decisions;
- assess in real time implications of marketing decisions made; and
- make good use of information resources and latest achievements in the area of computer technologies.

This is ensured through performance of certain tasks of the statistical study differentiated with respect to the functions of experts' activities.

Thus, the following tasks should be completed according to the organizational and methodological function:

- work at program-methodological and organizational issues of statistical observation;
- organization and maintenance of statistical observations and conduct of monitoring of social and economic phenomena and processes according to the needs of public administration and social reproduction entities;
- adoption of modern information technologies for statistical information gathering, processing, analysis and dissemination according to the marketing needs;
- consistent improvement of the methodology for statistical information and analytical support for strategic marketing and entrepreneurship; and
- development of methodological support for analysis and forecasting of activities at different levels of marketing management.

*The control function provides for:*

- conduct of verification of the match between statistical reports and requirements of instructions and standards;
- statistical information reliability, relevance and timeliness assurance;

*The analytical function provides for:*

- assessment of efficiency and risk of activities of marketing activity objects;
- analysis of competitiveness of goods, services, enterprises, branches, types of activity, regions, national economy in accordance with international standards; and
- analysis of the market situation, market infrastructure, foreign-economic activity, demographic and ecological situations, social aspects of development etc.

*The design function provides for:*

- development of information and statistical support for the planning and forecasting functions;
- forecasting of activities of the marketing objects consistent with strategic marketing and entrepreneurship tasks;
- based on the findings of statistical studies, identification of opportunities for fulfillment of strategic tasks and development prospects, potential for performance and competitiveness improvement at different levels of marketing management;
- based on the statistical analysis findings, development of measures aimed at substantiating and supporting marketing decisions on performance, competitiveness with allowance for risk at different levels of management of the economy.

Scientific cognition represents purposeful, cognitive activities composed of interaction of the following elements: cognitive activity of trained groups of people, objects of cognition, subject of cognition, special methods and means of cognition, developed and established logical forms of cognition and linguistic means, results of cognition; goals designed to attain reliable framed knowledge able to explain phenomena, foresee possible changes be practically applied.

Depending on the nature of objects of cognition, methods and means of their study, on the problem-solving specifics, there can be three main types of scientific studies досліджень:

- fundamental theoretical studies designed to look for fundamentally new ideas, ways and means of cognition and interpretation;
- targeted theoretical studies with a major purpose of differentiating verified and hypothetical knowledge;
- applied scientific studies focused on practical use of formulated laws and theories, searches for methods of practical application of study results; they bear a direct relation to building a system of marketing statistical support in terms of the use of statistical study findings in the course of development of and support for marketing decisions.

Scientific cognition consists of two levels -- empirical and theoretical. At the *empirical level*, statistical observation over objects is conducted regarding the MSS; facts are recorded and experiments carried out; empirical relationships and regular relations between individual phenomena are established.

At the *theoretical level*, laws and regularities are formulated in their systemic unity and integrity based on rational processing of data resulting from empirical cognition, the knowledge system, theories that unveil general and necessary relations.

In addition to the empirical and theoretical levels of scientific cognition, there also is a *metatheoretic level*, which is a prerequisite for theoretical activities in science. At this level, based on certain philosophical attitudes, generalization of the findings of empirical and theoretical studies general prerequisites for theoretical activities are identified, in particular, with respect to the structure of objective reality that is studied at a specific historical stage of science development in conjunction with problems and tools of theoretical cognition, a certain world outlook, and means of its reflection in scientific cognition.

General relationship and interdependence of phenomena and processes is the most typical regularity of reality, including socioeconomic one. Any enterprise does not exist only for itself. It performs certain functions within the system of social production. Consequently, considering possible decisions options regarding individual objects of marketing, it is necessary to take account of their relations to other objects. Interrelation of processes characterizes internationalization of economic development. At the present stage, interrelation of such processes as globalization and economic regionalism, integration and disintegration etc. is peculiar to it [10]. Study of these processes, assessment of interrelation among them; in particular, through statistical methods give an opportunity to assess their dynamic change. This, in its turn, creates a base for system-based assessment of the impact of the above-noted processes on the national economy and, on this basis, for development of measures aimed at ensuring its competitiveness. Studying an object with due regard for its relationships with other objects represents the essence of the system approach.

Real-world objects are interrelated to each other, and change of one of them affects operation of the others. Making a decision on one certain object, one should trace its relationships with other objects. Assessment of possible implications based on the interests of a collection of objects assembled to a system is the basic feature of the system approach to making a marketing decision concerning a certain object.

In its turn, the system can be defined as a certain collection of objects of different composition integrated by systematic essential interdependence, in particular, from the perspective of the goals set. At the same time, special emphasis should be made on the importance of dependence, which is a sign upon which the system is built.

The assertion as to which relations are substantial and which are not is always relative. Therefore, making a decision in this regard, one should proceed from practical considerations, existing classifications.

Correlation relationship is subjected to essentiality test through statistical methods [6].

The system structure can be defined in different ways, for example, to divide it into subsystems and the latter — into elements. An element can be regarded as a marketing object, whose internal structure does not interest marketing bodies but its individual characteristics influence the other elements and the entire system.

The system and system elements are conditional notions. The collection of marketing objects that are considered at a certain level as a system can represent an element of another system at a higher level.

Since in case of the system approach decisions regarding elements should be made according to the system's interests, there develops a chain of interrelated decisions. Each of them should be made according to the interests of a more general system. Therefore, to complete practical marketing tasks one should limit the size of the systems under consideration, that is, to identify the highest system. The activity of all system elements should be aimed at achieving the ultimate goal. When decisions concerning marketing of individual objects conflict with general interests, this leads to loss of opportunities to improve efficiency of resources use, in particular, in the long run, even with today's benefit at hand. Hence the understandable importance of an objective definition of the system's purpose and appropriate performance criteria for scientific substantiation of marketing decisions.

This is the basic prerequisite for sustainable effective economic development of both the state and individual enterprises.

Substantiation of marketing decisions through statistical methods is associated with the managed system's internal organization, that is, with its structure. The process of distinguishing system parts and connections among them is termed system structuring. The system structure combined with the statistical analysis methodology and procedure is a base for MSS structuring.

Structurally, MSS should be built so that the solution to a general complex problem could be broken down into a number of simple ones proceeding from opportunities for informational-methodological fulfillment of marketing purposes based on statistical characteristics.

The system approach, as a methodological foundation of MSS provides for identification of existing relationships between internal and external factors that determine the system behavior, consideration of temporal change in the system properties under the influence of external environment. Such an approach is effective when performing system analysis tasks stemming from functions of the system and its elements.

The basic task of MSS consists in cognition, through statistical methods and models, of quantitative relations of causal relationships in mass social phenomena, description and measurement of relationships of the development mechanisms and trends under specific conditions of a place and time as a basis for development of measures aimed at performing marketing functions that follow from the general content

MSS provides for differentiation of analysis techniques and methods by marketing objects, with account of operation of individual subsystems in distribution by their functions and links according to user needs.

This gives rise to a qualitatively new collection of interrelated functional groups by marketing activity areas and coordination among them quantitatively reflected through statistical methods.

The system approach to MSS building means that one should specify purposes of and criteria for operation of the system and carry out structuring that unveils a totality of problems. Solution to these problems should make that the system being designed and studied in the best way meet the set goals and criteria. The quantitative characteristics resulting from statistical analysis should show the degree of conformity of the system parameters with the set goals and criteria, clear up potential for marketing effectiveness improvement, and on this basis – performance results as well.

Marketing statistical support differentiates in accordance with its functions: planning, organization, and control [5].

When ensuring the planning function, the need for coordination of short- and long-range plans is taken into account. Statistical analysis of completion of short-range plans is central to assessment of its impact on performance of long-term tasks.

Statistical forecasting with account of uncertainty elements holds a prominent place in the planning process.

It is statistical forecasting based on determination of the confidence belt of forecast values that diminishes the danger of possible losses that can occur as a result of unforeseen circumstances, in particular, a risk inherent in obligations incurred for the future. Statistical forecasting performance enables planning calculations to change their orientation with minimum expense, adjust plans content-wise due to changing circumstances, and act in accordance with a probable measure of possible error.

Statistical multifactor models of relationship between performance results, on the one hand, and enterprise resources, on the other one, serve as a basis for contingency planning, when alternative plans are developed for the purpose of prompt response to unforeseen circumstances and, accordingly, reduction of the risk associated with future uncertainties. In this case, statistical estimation of the impact of performance of the major factors enables develop measures, which depends on diminishment of the impact of limitations associated with the effect of external factors.

Goal definition is the starting point in planning.

When performing the planning function, marketing needs to know the actual state of things. Control exercises this function determining effectiveness of planning and management, the degree of achievement of desired efficiency.

Statistical support for the control function rests upon statistical analysis of dynamics series, compliance with standards, assessment of dynamics fluctuations and stability, determination of the main development trend, dynamics factor analysis, and structural policy effectiveness evaluation.

At that, look-ahead control based on statistical preventive forecasting is of paramount priority. It makes it possible to offer feedback from the preventively expected system's output, as an effective control tool, to adoption of prompt measures in order to achieve the set goals, standards, criteria on the ground of adjustment of plans and elimination of shortcomings, sensitive response to the market conditions, competitive circumstances, and reorganize activities in a timely manner with account of environment protection requirements.

Statistical models of cause-and-effect relationships in conjunction with adequate marketing purposes and socioeconomic efficiency criteria also serve control goals. Using these models is an essential prerequisite for achievement of the marketing overarching goal — maintenance of the enterprise performance quality at a certain level depending on changes in the internal and external environments.

Within the management system, strategic management that provides for development of goals and policy, long-term orientation to market needs in order to ensure a desired performance level is at the upper level.

Information and analytical support for strategic management rests on principles of the statistical methodology for diagnostics of the state of marketing objects, the cause-and-effect mechanism for dynamics formation, the economic situation monitoring, forecasting and, on this basis, making optimal marketing decisions.

The process of MSS building comprises the following components [3]:

- defining the essence of the marketing category, its development current problems and tasks;

- defining the essence of category management, marketing purpose and ways to fulfill this purpose;
- defining the essence of MSS, its purpose and objectives;
- identifying distributions used in the MSS process;
- building a system of MSS indicators;
- identifying the factors that determine development of the marketing category;
- defining information users;
- building MSS statistical tools;
- building MSS information support;
- building MSS methodological support;
- conducting a statistical study of the marketing category;
- developing proposals as to substantiation of and support for marketing decisions based on the statistical study findings.

Proving the necessity and feasibility of assessment of MSS characteristics through statistical methods is an indispensable prerequisite for its building as a system.

Experts with such skills need substantial training in system statistical analysis of the socioeconomic component of society as an integrated system in different aspects; economic, social, international statistics etc.; primary data collection methods with the use of modern information and telecommunication technologies; information processing by means of modern methods and tools of mathematical-statistical analysis, data mining, and computer technologies.

**Conclusions.** The process of building marketing statistical support is based on the principles of system analysis, which provides for identification and evaluation of direct and inverse relationships of elements of the general marketing system. Using statistical methods enables to quantitatively and qualitatively assess the essentiality of these relations when developing practical recommendations.

When covering these functions, the statistical analysis methodology uses a suite of statistical methods and methodologies, which makes it possible to character such important aspects of management as dynamics and forecasting, assessment of the impact of structural transformation, risk, balance relations, proportionality of distributions on performance results and, on this basis, determine integral performance appraisal.

The process of building management statistical support includes a number of stages, in particular, building a system of indicators, statistical tools, information and methodological support, conduct and generalization of statistical analysis findings and development, on this basis, of proposals as to substantiation of and support for managerial decisions.

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## INTELLECTUAL CAPITAL FORMATION AND DEVELOPMENT CONDITIONS IN UKRAINE

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### Keywords:

Intellectual capital, economy of knowledge, innovations, innovative potential.

### ABSTRACT

This article describes the results of research of intellectual capital formation conditions. Author proposes to analyze venture business as one of the alternative way of intellectual capital today.

**Problem statement.** Definition of Ukrainian macroeconomic growth requires specification of theoretic-methodological base for future changes. Ukraine cannot take into account global trends refocusing on a new path of development associated with the most significant role of intellectual capital in the development of any country and ensure its competitiveness in global economic processes. The current conditions, in which the formation of its intellectual capital, are complex. However, there are a lot of problems, including the formation of an atmosphere of general interest in the work of intellectuals, the transition of educational systems to the next level of work to realize the individual needs and desires, personality development, improving people's welfare and quality of its life, the development of national projects in the field of implementation of management technologies and social innovation, intensive development of advanced domestic branches of science, ensuring effective linkages between science and economy.

Research of the formation of intellectual capital is important for the development of economic policy in any country that claims to have meaningful place in the world's economic system.

**Unsolved problems.** Intellectual capacity conversion for intellectual capital is in the process of reproduction of the intellectual capital that is essential and important process in the formation of the modern knowledge economy. In the system of reproduction of intellectual capital allocated to the following elements: the education system, the system of production and recovery of scientific and technical knowledge, the mechanism of protection of intellectual property, the system measures the development of information and communication technologies, public policy in bringing technology from abroad.

**Analysis of recent research** Important role in ensuring effective reproduction process of intellectual capital in today's economy the state plays. The new paradigm of scientific and technological developments related to the socio-economic orientation of new technologies, knowledge and practical sets of factors are used for the economic growth of communities to improve their material and cultural living standards.

**The main material.** The development of science should be considered as a first priority of social development. Unfortunately, in Ukraine the crisis of science, because low salaries of researchers, lack of funds for the purchase of modern equipment, resistance to the introduction of scientific developments and other phenomena cause significant loss of highly qualified human resources. The level of interest of enterprises to use innovation rises slowly due to shortcomings in the tax system of the country and the difficulties associated with the riskiness of significant innovative activities in science and not enough attention is being paid to differential approach to material incentives for scientists to create a dramatic breakthrough "know-how".

Formation and development of post-industrial economy, the growing role of information and knowledge in the production process has a direct relationship to economic progress and social development from solid intellectualization of living.

Come first field, which is the basis for the functioning of the achievements of basic science, information and knowledge. This process is said, first of all, a huge development and priority in the economies of developed countries such fields as biotechnology, software, genetics, biochemistry and various information industries.

Of particular interest is the growth of media companies. Besides the fact that this growth is impressive, from an economic point of view, its pace, it also does not supported in terms of the industrial system. These companies do not possess virtually no fixed assets, but their achievement is very significant.

Another aspect of structural changes in the modern economy is a big role of science in the reproduction process of society. As for traditional industrial sectors, the overall development of the productive forces directly reflected in them.

Changing the structure of employment. In developed countries the share directly involved in material production is less than 20%, while the share of employment in agriculture does not exceed 10%. Reducing the number of workers in the primary and secondary sectors of the economy accompanied by the rapid growth of employment in the tertiary sector, ie services.

However, the actual scope of services is not uniform, and therefore need to pay attention to changes in the structure of employment within it. Here are the following trends. In these sub-sectors of the tertiary sector, such as communication and transport, which do not require an employee to specific individual investment, employment growth was not observed. While in the sub service associated with significant individualized produced their product and use the special qualities of an employee, including primarily special education and his intellectual capacity, employment grew rapidly.

This process is driven by general economic trends, the increasing role of information in the production process, changing methods of transmission, increasing complexity of financial assets and how they are transmitted.

Thus, the observed increase of intellectual component products and information of economic processes. Knowledge and information in today's society are the main strategic resources of economic activity.

Accordingly, particular relevance in the modern economy gain intellectual capital research at the national level:

Firstly, intellectual capital determines the efficiency of modern production at the country level, since this includes factors that today are characterized by the qualitative contribution to value added. This includes human capital as a combination of knowledge, skills, abilities rights and intangible assets (patents, licenses, know-how, trademarks), and organizational structure, electronic networks and databases, etc.

There is no doubt that the foundation of the modern economy is the efficient use of human potential, the availability and use of scientific and technological progress (their share in assets, in products, in fact, their ability to produce in the current economic system), the way of external communication' (position in the world market) institutional environment.

Obviously, all these strategic factors of development of the national economy determine immense practical significance of the formation of the intellectual capital of the country.

Secondly, intellectual capital, as already noted, is an intangible factor. The importance of adequate evaluation of intangible factors confirmed by numerous attempts of scientists to assess. Similar factors at the level of the national economy are sometimes called "soft" factors of economic growth, and they accounted for according to various estimates, in some cases up to 80% of the growth of national product [6]. This ratio is typical for economically and socially developed countries.

Thirdly, the study of modern post-industrial economy and the types of information today mostly are not practical and theoretical, and some even futurological. Scientists try to look into the future, but do not count today. As a result, a lot of practical aspects is beyond the scope of research.

Therefore, the formation of economic policy practitioners have to be content tools industrial economy. Moreover, one of the problems of modern economic theory - provide tools for analysts and economic policy.

As you know, the competitiveness of a state level provides efficient use of national productive resources, increasing productivity and using them on that basis, high, constantly rising standard of living. Condition for the functioning of modern post-industrial society and a major factor in the competitiveness of modern economies is the intellectual capital.

One of the main trends in the modern economy, which is associated with the emergence and implementation of intellectual capital is to strengthen the role and importance of the state in the economy.

In general, the strategy of state conduct in the modern economy is:

On the one hand, in developed countries, it is increasingly the economic sphere, reducing its direct presence as an owner in all areas, and providing the same competition the opportunity to shape a more efficient economy;

On the other hand, the indirect presence of the state in almost all spheres of the economy is the key to further effective development. The state in post-industrial economy a great responsibility for the development and implementation of national socio-economic and scientific-technical policy formulation and development of an institutional framework that includes not only legal, but also ethical, moral relationships of people in today's society [1].

The high level of socio-economic development is the basis of appearance, function, and reproduction of intellectual capital. In a country with low income and consumption possibilities of development (and implementation of intellectual capital) is quite limited. This pattern is due to the following points:

However, it should be noted that some elements of intellectual capital (information, knowledge, education level, professional level, intellectual property) can not alone provide a high level of competitiveness of the economy of the country, and it is no coincidence, because intellectual capital at the level of the national economy is a complex system of interrelated elements, each without which this system cannot be properly. This highlights the importance and significance of playing intellectual capital for the sub? Facilities management in a modern market economy [8].

Ukraine, with a strong intellectual capacity and the possibility of its transformation into capital, cannot be involved in the global process of intellectualization of social production. Compulsory basic condition for further development of the national economy is forming in our state effective market infrastructure of modern post-industrial society, which will create the preconditions for its transition to knowledge-intensive and high types production, and to ensure the development and reproduction of intellectual capital as the main factor of competitiveness of modern economies Ukraine.

According to Art. 1 "Key Terms and Definitions" of the Law of Ukraine "On Scientific and Technological Research" [7], scientific activity is the intellectual creative activity aimed at acquiring and using new knowledge. It should be noted that in the process of market reforms the number of workers employed in scientific organizations, tends to decrease (Table 1). According to Table 1, it should be noted that the total number of employees in the core activities involved in the scientific sector, to analyze only isolated scholars engaged in scientific and scientific-technical work.

By classifying Committee of Ukraine on the distribution of staff of scientific organizations by category of personnel categorized as "researchers" have included scientific and engineering and technical personnel who are professionally engaged in research and development and is directly involved in the creation of new knowledge, products, processes, methods and systems as well as administrative and managerial staff that provides direct management of the research process [3; 4; 6].

Table 1

**Dynamics performance scientific and technical work in Ukraine  
(In the context of intellectual capital) for 2000-2010**

| Indicators / Years                                                                              | 2000  | 2005  | 2010  | 2013  |
|-------------------------------------------------------------------------------------------------|-------|-------|-------|-------|
| The total number of researchers engaged in scientific and scientific-technical work (thousands) | 89,2  | 85,2  | 78,8  | 77,4  |
| Have a degree Ph.D.                                                                             | 4,1   | 4,2   | 4,4   | 4,5   |
| Candidate of Sciences                                                                           | 17,9  | 17,0  | 17,0  | 17,1  |
| The total number of completed scientific and technical work <sup>1</sup> , total, (thousands)   | 38,3  | 63,9  | 62,7  | 62,5  |
| With the creation of new products                                                               | —     | 6,3   | 8,5   | 8,8   |
| Including the creation of new types of equipment                                                | 3,9   | 3,8   | 3,0   | 3,8   |
| Including works which used inventions                                                           | 1,0   | 0,8   | 2,1   | 2,0   |
| With the creation of new technologies                                                           | 3,6   | 5,4   | 7,6   | 7,3   |
| Including resource saving                                                                       | 1,7   | 2,2   | 3,2   | 3,1   |
| With the creation of new types of materials                                                     | 1,1   | 1,2   | 1,5   | 1,5   |
| With the development of new plant varieties, animal breeds                                      | 0,5   | 0,8   | 0,8   | 0,6   |
| With the development of new methods, theories                                                   | 2,2   | 5,4   | 8,7   | 8,4   |
| Other works                                                                                     | 27,1  | 45,0  | 35,6  | 35,9  |
| Index performed scientific and technical work that falls to one researcher                      | 0,429 | 0,750 | 0,795 | 0,807 |

<sup>1</sup> Since 2005, organizations that perform only scientific and technical services do not report.

According to the calculation Table 1, the performance index of scientific and technical work in Ukraine, which accounts for one researcher, the highest value reached in 2013 - 0.807 compared with 2000 - 0.429, or height was 53.15 percentage points. It should be noted that in this Index there is a constant trend of annual growth. But the negative effects include gradual reduction in the total number of researchers engaged in scientific and scientific-technical work. For example, in 2000 the figure was - 89.2 thousand people, and in 2013 - 77.4 thousand people. So for 10 years the total number of researchers decreased by 11.8 million people, or 13.23%. However, the general trend to reduce the number of performers scientific and technical work number of doctors gradually increased, and in 2013 their number amounted to 4.5 million people compared with 4.1 million people in 2000.

In addition, the decrease in the number of candidates from 17.9 thousand in 2000 to 17.1 thousand in 2013. The process of reducing the number of candidates affects the formation of intellectual capital. In addition, a negative factor for the formation of intellectual capital is insufficient funding of scientific and technical work. Distribution by sources of financing scientific and technical work on the state budget is less than half the total cost of financing scientific and technical work. In 2013, the share of funding from the state budget execution scientific and technical activities was 48.7%, at its own expense organizations? 7.4%, means domestic customers - 25.8% of foreign countries? 15.6%, and other sources - 2.4%. This indicates the need to improve the financing of scientific and technical work, including through public procurement pursuant to the priority areas of research that practically affects the formation of the intellectual capital of Ukraine.

Priority targets Ukraine's integration into European economic space confirming paramount importance of scientific and intellectual activity in the global competition. For countries in the European area of significant importance is the study and preservation of intellectual activity involving the greatest number of qualified professionals. Based on the fact that the balance of intellectual labor market serves the basic parameters of intellectual capital formation and significant impact on the competitiveness of the national economy. The demand for intellectual labor market depends on the ability of creating new jobs through new investment and innovation. From the perspective of economic efficiency, additional experts engage in production until the rising costs of organizing their work will be less than the revenue that they bring enterprise.

The practice of developed countries and progressive enterprises shows that well-organized intellectual work makes profits many times higher than the simple reproductive labor [5]. Given the ability of intellectual capital to create intellectual products, its carrier-owner, thus participating in the development of scientific and technological progress, which directly contribute to increased demand for highly skilled intellectual labor. But at the present stage of economic development in Ukraine tendency excess of supply over demand in the market of intellectual labor.

Towards sustainable socio-economic development as soon as possible to use all the power and provisions for the formation of the intellectual capital of Ukraine as sufficient productive forces of society. The parameters of formation of intellectual capital influence the development of scientific and technological progress and create conditions for the commercialization of knowledge.

Law of Ukraine "On the scientific and technical activities" states that one of the main instruments of state policy in the field of science and scientific and technical activities are public resources.

The state should provide budgetary funding of research and scientific and technical activities (excluding defense spending) in an amount not less than 1.7% of the gross domestic product of Ukraine [1]. It was assumed that the said article of the law "will be implemented in stages," that is in the budget in 2010 was planned to be 1.7% of GDP. However, in reality, state funding for science is far from the declared legislative norms of their ownership?

According to most experts [2], subject to European standards spending on science in this country should be 75 billion USD. - 24-25% of GDP in 2009, 17,5-18,5% - in 2011 for fixed amounts of funding. According to other estimates, the country's spending on science should be at least at the level of the lower border of the world's standard of expenditure on research and development per one scientist (as of 01/01/2011 it was about 50 thousand dollars.). If we take the optimal number of scientists in Ukraine 120-125 thousand people, science funding in 2012 - 2013 should be no less than 32 billion., And innovation - 160 billion.

In the 90 years of the twentieth century in industrialized countries formed the phenomenon of so-called "new economy", which was marked by structural adjustment, the rapid deployment of information revolution and rising incomes THK in the global economy. The process of globalization embodied in a "high-tech" way of life, the development of information technology and business venture. A measure of the ability of the society to the real market transformation through the creation, implementation and practical implementation of innovation is the degree of innovation processes, which is the main indicator of economic condition of any country. Achieving STP is the result of targeted innovation policy. Analysis of key indicators of the European Innovation 2010 ranking proves that innovative leaders in Europe are Sweden, Finland, Denmark, Germany and Switzerland, which together have 60% of the leading positions in the ranking. These economic changes that occurred in the last decade, the global economy, have given impetus to structural changes in the economy of Ukraine, but today, as statistics show that they are characterized by serious lag from the processes that determine the information economy (5th of technology) . The statistics show that, for domestic enterprises in various industrial branches and various areas characterized by different technological modes (Table 2).

Table 2

**Innovation Activity in Ukraine in 2005-2013\***

| Index                                                                   | 2005  | 2006  | 2007  | 2008 | 2009  | 2013  |
|-------------------------------------------------------------------------|-------|-------|-------|------|-------|-------|
| Enterprises - total                                                     | 10730 | 11420 | 10652 | 9979 | 10197 | 11422 |
| Number of industrial enterprises involved in innovation                 | 1470  | 1359  | 1193  | 1417 | 1397  | 1462  |
| The share of industrial enterprises engaged in innovation activities, % | 13,7  | 11,9  | 11,2  | 14,2 | 13,7  | 12,8  |
| Including:<br>in engineering                                            | 27,7  | 22,2  | 23,3  | 21,2 | 21,1  | 22,2  |
| In steel Industry                                                       | 31,8  | 29,7  | 18,4  | 20,2 | 17,0  | 15,4  |
| in the chemical and petrochemical industry                              | 22,4  | 21,0  | 33,3  | 34,0 | 34,0  | 33,3  |
| Innovation by ownership, %:                                             |       |       |       |      |       |       |
| private                                                                 | 7,0   | 10,4  | 12,1  | 8,1  | 8,0   | 7,9   |
| collective                                                              | 17,8  | 17,1  | 18,8  | 16,4 | 16,1  | 15,8  |
| state                                                                   | 23,0  | 21,6  | 22,7  | 15,1 | 15,0  | 14,9  |
| municipal                                                               | 6,4   | 2,9   | 4,3   | 5,0  | 4,9   | 4,8   |

\* Calculated by the author from the statistics: 2013 Statistical Yearbook of Ukraine;

58% of industrial enterprises for the production of products belonging to the 3rd technological structure, 38% - to 4-Th and only 4% - to 5-Th technological way. Slightly better situation in the financing of scientific and technological development: almost 70% today belongs to the 4th and only 23% - to 5-Th technological way. With innovative cost: 60% belong to the 4th way of life and 30% - 3rd (ie total 90%), and 5-way in innovative and cost is only 8.6%. For investments that determine the development of the economy over the next 10 - 15 years, to 75% of the investment can be attributed to the 3rd technological structure and therefore only 20% and 4.5% - to 4-th and 5-th technological structures. It should be noted that, as shown in Table. 2, only 13.7% of the total number of industrial enterprises in 2009, while engaged in innovative activities, while there is a downward trend due to the financial crisis. According to the data, the dominant among industries on innovation are chemical and petrochemical industry - 34% and machinery - 21% of these industries for the period since 2004 have significantly strengthened their positions.

**Conclusion** Now the cost of research and innovation grow quickly and beyond the capabilities of one enterprise. In Ukraine, it is supplemented by the fact that many companies have only recently began to emerge from a deep economic crisis. Revelation? Unity and cooperation within the volume? Associations can help to share the high costs and risks of innovation networks between participants.

Now the cost of research and innovation grow quickly and beyond the capabilities of one enterprise. In Ukraine, it is supplemented by the fact that many companies have only recently began to emerge from a deep economic crisis. Consolidation and cooperation within organizations can help to share the high costs and risks of innovation networks between participants.

In Ukraine, the venture capital market is about \$ 400 million. and has no more than a dozen companies working on it. Among them are "Western NIS Enterprise Fund" (\$ 150 million in capital. Allocated by the U.S. government for the development of food industry, agriculture, construction materials, and the financial sector of Ukraine), "SigmaBlazer" (capital of \$100 million.).

Although the development of venture funding originates in Ukraine since 1992, it remains specific and differs substantially from overseas. Ukrainian venture capital inclined, not too diversifying assets implement investment projects using transactions in financial assets and real estate. Virtually no initial investment and investment in innovation, while in developed countries, venture capital goes into the innovation sector in Ukraine is mainly investments in the company.

Venture investors can only be legal entities or individuals or pension funds or insurance companies cannot invest to the venture fund. The function of venture capitalists in Ukraine performing asset management companies, which unlike other countries are usually the average investor, but further investment business will grow, serving mostly borrowed funds.

Activations of this form of business is necessary, but unfortunately in the state is very vague and shaky regulatory and legal framework governing the market venture enterprise.

Great importance in the formation and development of intellectual capital becomes the system of innovation activity of enterprises. A crucial role in this belongs to governance and regulation. The growth of current and future competitiveness of the economy provided innovation, transformation of the economy, technology, social and other fields contribute to the formation of intellectual capital.

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