JEL Classification: O300

**UDC: 338** 

ANALYSIS OF MANAGEMENT EFFICIENCY AND ASSESSMENT OF MANAGEMENT RESOURCES IN THE CONTEXT OF THE COMPETITIVENESS OF HIGHER EDUCATIONAL INSTITUTIONS DEVELOPMENT

## O. SHEVCHENKO 1

<sup>1</sup> Kyiv National University of Technologies and Design, Ukraine

Introduction and aim of the research: The article deals with aspects of the management resources of the management system of higher education institutions in Ukraine. The analysis of internal and external factors influencing the effectiveness of management decisions is carried out. The basic principles of formation of managerial resources focused on the achievement of competitive advantages in the market of educational services are singled out.

**Research hypothesis:** The new approaches to the management of higher education institutions are creating a stable competitive structure adapted to work in modern conditions is assumed.

The aim of this is to research of management resources of universities and the process of making managerial decisions by the higher educational institutions management as one of the main factors of an effective system of management aimed at increasing competitiveness.

**Results:** The scheme of interconnected competition aspects of higher education management and competitiveness towards effective educational services is developed.

**Conclusions:** An integrated approach to assessing the competitiveness of a higher education institution based on an integrated assessment of the management efficiency of existing potential and resources has been proposed.

**Keywords:** management, leading, leadership, management efficiency, higher education, competitiveness.

**Problem statement and its connection with important scientific and practical tasks.** The national education system is in the process of reforming. As one of the most important components of socio-economic development, it should become an attractive and open for investment of all levels. Of course, this is a cost field, the return from which is expected in the future. However, from the point of view of reproductive processes, when in the economy as a whole, due to the involvement of new and new specialists in the production process, creates a multiplicative effect, for employers, the sphere of education is a sphere of investment of capital with returns in the form of future profits.

The current state of socio-economic reforms in the country requires the establishment of an effective system of personnel management in a higher educational institution and the development of human resources.

The gradual implementation of innovative principles and approaches to the organization of an adequate level of quality assurance of educational programs requires radical changes in the existing systems of management of processes by educational activities aimed at satisfying the needs of the customer-student. Insufficient experience of professional training of managing personnel of higher educational institutions against the background of post-Soviet methods complicates their adaptation to the modern requirements of creating an effective personnel management system. Particularly relevant is the question of the theoretical elaboration of social and economic mechanisms for the preparation and reproduction of highly skilled management personnel who have a high level of general and specialized leadership level and are able to form a motivated team of reformers for changes.

It should be noted that at present, the most acute problem facing the management is the modern requirements, their own effective systems of training, retraining and staff development, including leadership skills development.

Prospects and trends of higher education require the development of a new, systematic concept of managing the competitiveness of universities in a dynamic competitive environment.

The status of a higher educational institution should change, giving that the university becomes the subject of market relations and acts as the producer of educational services. The causal and consequential change in the status of higher education is a change in the methods of its management as an enterprise. This requires the abandonment of existing models of non-economic behavior in favor of the development of modern management concepts.

In these conditions, scientific research is needed on a new coherent approach to managing the competitiveness of universities, which will increase the contribution of universities to the socio-economic development of the state. The need to solve the problems identified causes the relevance of this study.

Analysis of recent publications on the problem. A large number of researches of foreign and domestic scientists is devoted to the problems of effective activity of higher educational institutions and the competitiveness of educational services and universities. Among them are the works of such scholars as S. Ablameiko, O. Belash, I. Gryshchenko [3, 5], Y. Ivanov, V. Lazarev, E. Pesotka, T. Ekshikeev, V. Shcherbak [14] and others. Some problems of the justification of the system of indicators and the choice of criteria for assessing the competitiveness of HEIs are presented in works of T. Milguy, T. Ryabchenko, N. Kilchevskaya, and T. Krykunova. One of the most important tools for making managerial decisions in the area of competitiveness management is the comprehensive monitoring of the activities of universities.

In this direction were performed works of D. Istrakhanova, I. Gryshchenko [4], I. Egorov, M. Pugacheva and others. However, despite of the results, there are still a number of under-researched problems in this area. In particular: problems of evaluation and organization of competitive management of educational process in higher educational institutions in the current market conditions, developing on the basis of modern information systems and technologies; Problems of optimal management and financial monitoring of higher educational institutions by criteria of improving the quality of educational process and an objective assessment of the level of knowledge received by students in universities. The above circumstances and defined the purpose, objects and direction of this study.

Presentation of the main results and their justification. Reduction of the volume of scientific activity, the manifestation of crisis phenomena in scientific and educational organizations and its individual spheres and fields of science and technologies are caused by the difficult economic situation in Ukraine. In its turn, the limited material, labor, financial and other kinds of resources predetermine the need for urgent reform aimed at preserving and developing the managerial and competitive potential of higher educational institutions in Ukraine. Many authors have recently devoted their work to this topic, but more often the researchers focus on finding new forms of education management. At the same time, there are quite a few works that are researching the problem of managing the competitive potential of a higher school in conditions of limited state support. In many respects this is due to the fact that the mentioned problem with state resources of education was not a priority. And only in recent years, when public funding in support of the entire education system has declined significantly, this problem has proven to be quite critical. At the time, there is the question of survival of the scientific and educational branch of Ukraine in general and every single university in particular.

In the well-known bestseller "Re-imagine!" of Thomas J. Peters, an American writer on business management practices, says that in the 21st century, will reign organizations of the new type, fast, flexible and stable ones. He suggests that managers understand a lot more changes than could have been imagined before. Exploring changes not so much in managerial technology, but in the very principles of doing business, in the picture of the world of people, Peters highlights key characteristics — creativity, customer orientation, maximization of added value, participation in "crazy projects", acceleration of change [10, p. 352]. In our opinion, such objective management strategy should radically cover the system of higher education.

Universities, like other business structures, find themselves in a market economy when it comes to solving the issue of attracting money rather than waiting for financial mercy of the state. In this sense, it is expedient to study and implement managerial approaches based on the ideas of so-called "academic capitalism".

The reason for the spread of "academic capitalism" is very well described by the expert in the field of university management Karel Tavernier: "Worldwide, governments are no longer able to pay full higher education bills: compared with other priorities, modern universities have become too expensive to exist for the money of society. Moreover, governments not only fail to, but also do not want to do so, for the simple reason that in today's knowledge society a wide range of university products brings substantial dividends to those who buy it. Anyone who benefits should pay at least some of the cost. As a result, universities become some hybrids: semi-state, semi-private" [12].

At the same time, Ukraine, as an equal participant in the Bologna process, can not stand aside the criticism of European countries regarding the intensive formation of "academic capitalism" in the system of higher education. European governments are actively trying to resist the transformation of European education into an ordinary service or entrepreneurial activity. But now the realities of the functioning of higher education in Ukraine require the need to maintain a managerial balance that would allow to combine education with science and business. A selective approach to the commercialization of certain scientific achievements and the preservation of the quality of higher education is needed, without turning it into a "utilitarian craft", in the context of the spread of crisis and competitive situation.

Institutions of higher education are forced to carry out part of their activities in a global market with strong competitors emerging from unexpected parties. An example is the practice of creating integrated business structures (for example, "System Capital Management") of accredited corporate universities based on their own training centers.

It should be noted that the crisis of higher education has a global growing character. The Canadian scientist Bill Readings, pointing out that the idea of the university has a great historical path: from the idea of reason (from Kant) through the idea of culture (from the German idealists) to the present idea of perfection or quality. But today the universities are in a "ruin", because none of the historical ideas can serve as the foundation for its existence. He also gave his assessment to the head of the scientific and educational institution: "The central figure of the University is no longer a professor, performing both the role of a scientist and a teacher, but a rector, to whom must report both managers and professors".

There are three classical tasks assigned to management staff (equally important but fundamentally different), which should be addressed to the managers, including the heads of the university, so that the team entrusted with its care has successfully functioned and contributed to the development of society, for this it is necessary:

- Formulate the specific purpose and mission of your institution.
- Ensure that the work of the institution is productive, and the actions of the employees are effective.
  - Adjust the social impact and social responsibility of the organization.

"The effectiveness of any subsystem is determined by its contribution to the achievement of organizational goals. Personnel management is effective insofar as employees successfully use their potential to realize the goals that stand before it" [13, p. 313]. The assertion of this provision, as the indisputable postulate of one of the fundamental values of the organization, is the most important condition for the establishment of an effective system of personnel management and ensuring competitiveness.

Obviously, the definition and evaluation of the system of performance indicators for managing the competitiveness of higher educational institutions largely determines the complexity of the analysis of the activity of a higher educational institution at all stages of the adoption and implementation of management decisions.

In the first place, the competitiveness of the university is determined by the quality of education, the competitiveness of educational services, the effectiveness of marketing activities, the efficiency of management of investment activities and aggregate potential. Therefore, the overall effectiveness of managing the competitiveness of a higher educational establishment of EU can be presented in the form of an integrated assessment of the management efficiency of the above-mentioned potentials (1).

$$Ec = (E_{ed} + E_m + E_{cp} + E_{inv} + E_q) \times 100\%,$$
 (1)

Ec – The effectiveness of managing the competitiveness of universities;

 $E_{\rm ed}$  – The effectiveness of managing the competitiveness of educational services;

 $E_{\rm m}$  – Effectiveness of management of marketing activities of universities;

 $E_{cp}$  – The efficiency of management of the aggregate potential of the university;

 $E_{\text{inv}}$  – Efficiency of management of investment activity of higher educational institutions:

 $E_q$  –Effectiveness of quality management in higher education.

Certain types of management efficiency competitiveness of universities are rated as the ratio of change in the complex indicator for each module of competitiveness (competitiveness management of educational services, management of marketing activities of universities, management of combined potential of universities, management of investment activities of universities, quality management of institutions educaion) in each subsequent period, compared from the previous to the value of the complex index in the previous comparison period.

Such a development of the competitiveness of an educational institution, from our point of view, can be represented as a pyramid structure consisting of 4 consecutive interrelated levels: "Competitiveness – Competitive stability – Competitive Mobility – Competitive Status / Image" (Fig. 1).

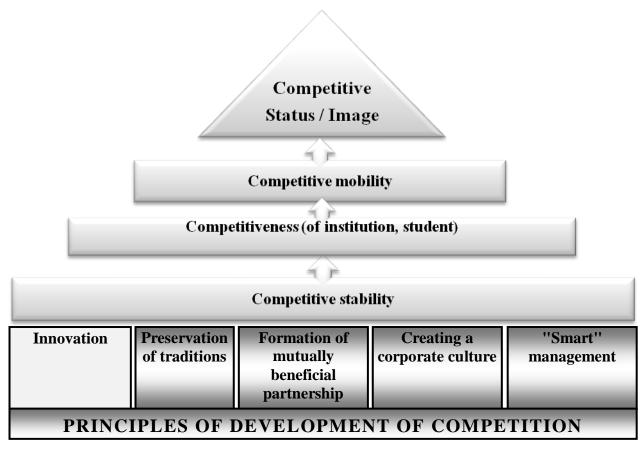


Fig. 1. Scheme of interconnected competitive aspects of university management

Achieving the appropriate level of management efficiency is possible with implementation and compliance with certain control algorithm that defines the essence of competitiveness of universities planning system and includes a sequence of actions such as analysis that tracks the dependence of the level of competitiveness of university performance of various aspects of its operation; Building on this basis the relevant models and their application for calculations; The development of measures aimed at increasing the competitiveness of universities and raising the image of the competition.

In the basis of the proposed pyramid, let's call its pyramid "4C" lay the following basic principles of successful construction:

- 1. The principle of "smart" management: sustainable management of the quality of educational services and monitoring of the existing market; Effective savings management of resources; Development of intellectual resources of universities; Thought-out strategic mission, dynamic development program of higher educational institutions, continuous improvement of professional skills, etc.
- 2. The principle of innovation: competitiveness of the university will be ensured when the educational institution uses innovative methods and approaches, both in the educational process and in scientific work, which, in turn, allows to train specialists at the world level, integrating the achievements of science and technologies.
- 3. The principle of traditionalism: the preservation of academic and university traditions, in conjunction with adaptability to the requirements of the modern educational market.
- 4. Principle of mutually beneficial partnership: interaction of higher education institutions with all interested parties (business structures, state bodies, other universities, public organizations, scientific communities, etc.).
- 5. The principle of identity: the formation of a corporate culture that combines innovation and tradition.

It should be noted that the assessment of the effectiveness of the university management system, in addition to the assessment of competitiveness, is necessary for the improvement of the whole system, its continuous development and periodic self-examination, in order to optimize its activities. The important aspect here is compliance with external normative requirements - accreditation indicators, availability of professional accreditation, lack of regulations of external controlling organizations, availability of international certificates, financial state support, etc.

Key factors are also internal factors. Conditional indicators of the internal efficiency of the management system of higher educational institutions can be divided into two directions: the performance of the heads of universities, which are expressed in an active position in relation to the improvement of the system of management of universities (intent-intentions) and performance indicators, which were achieved over a certain period of time.

In the paper [4, p. 156] it is noted that the important task of the university is not only the creation and maintenance of competitive advantages, but also their profitable capitalization, the transformation into money that can be invested in the further development of the university. It is the economic situation of the environment encourages the University to create a market-oriented development strategy aimed at ensuring economic sustainability as one of the key factors in ensuring the competitive status of universities.

In the manifestation of the multifactorial influence of external and internal factors of the competitiveness of universities, with all similarities in the formation of a competitive image in the sphere of industry (the availability of educational and scientific product), it should be taken into account that the competitive result of educational activity is possible only under the condition of the student's ability and desire. Consequently, a market-oriented strategy for managing the development of universities should be based on the paradigm of student-centered educational activity [7].

It should be noted that during the analyzation of the competitiveness of universities, along with the quality of the service itself, the assessment of the financial status of the company and the level of resource efficiency are of great importance. The factors that determine its position in the social environment (such as the location of the institution, etc.) are also important in comparison with the organizations providing services in the market of educational services.

In view of this, the issue of managing the competitiveness of educational services of higher educational institutions should be considered at three levels: organizational, economic and consumer.

Organizational level is the level of management of the process of creating competitive educational services in the institution itself.

Economic - the level of competitiveness of an educational institution as an educational service provider for future employers.

Consumer level is the level of production and consumption of educational services, which is considered from the standpoint of the competitiveness of the national education system.

The solution of the problem of increasing the competitiveness of educational services is considered in two dimensions: as a result of the educational process ensuring that the level of competence of graduates corresponds to the requirements of the labor market and the competitiveness of educational services in the labor market (Fig. 2).

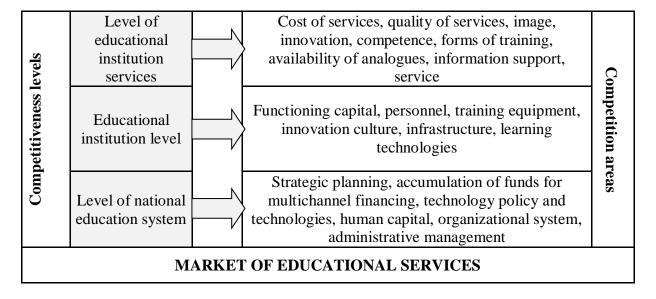


Fig. 2. Scheme of connections of levels of competitiveness and areas of competition in the market of educational services

Competitive advantages of the national education system depend on strategic planning, from the formation of a system of accumulation of funds for multi-channel financing, technological policy and technologies, and an organizational management system. At the level of services of an educational institution, the management of its competitiveness is considered in a certain logical sequence: the mission of higher educational institutions; Its connection with the external environment; Tools of innovation economy; Principles, functions and methods of management.

After formulating a mission, studying consumer inquiries, analyzing the external environment, forecasting the competitiveness of the elements of the input, it is necessary to develop the structure of specialties, innovative curricula and form requirements for the quality of the processes involved, economic, social, provisioning, educational, innovation, etc. The main condition for improving the competitiveness of an educational institution based on a competent approach is the integration of schools, universities, science, production and market mechanism.

As Ukraine is a member of the Bologna Process, the competitiveness of the national education system is set within the framework of institutional transformations, both the national education system and educational institutions.

These can be attributed to:

- the formation of a two-tier system of educational programs of higher education in such a way that they can provide not only a variety of individual and academic needs, but also the needs of the labor market;
- improvement of the system of compatibility of national educational systems by improving the procedures for recognition of degrees and periods of study, developing a common definition of qualifications, with taking into account the indicators of the academic load, the level and results of the educational process, competences and profile of educational programs;
- ensuring the quality of higher education through the development of effective quality control systems at the level of universities, at national and European levels, the rational combination of academic quality and the applied nature of educational programs;
- development of the system of transferable and accumulated loans and its consistent application in the framework of the growing pan-European space of higher education.

Management decisions on their implementation proceed from the goals tree and the need to address specific tasks in the following priority areas:

- the mission of an educational institution (what do we want to do and what we have?);
  - "exit" (what consumer market is waiting from us?)
  - the external environment (who and how does it affect us from the side?);
- "entrance" (with what the supplier market can provide an education institution?);
- strategy and structure (what should be the strategy of the functioning and development of an educational institution, which subdivisions it should have?)
- processes for the processing of "input" into "output" (what processes and how should be managed the educational institution?).

Conclusions and perspectives of further research. According to the results of the study, it can be concluded that in order to create a proper competitive status, there is a need for innovative activation of the management resources at the organizational, economic and consumer level, aimed at increasing the number of talented students. A comprehensive approach to create the necessary conditions for meeting the needs and expectations of students (during training) is a key factor in creating a competitive image of higher education institutions and the basis for ensuring its consistent competitive advantages in the educational services market.

Thus the development of competitiveness of higher education institution in the context of creating a new mechanism for managing the operation of universities can be formed by reorganizing the old management approach, using the accumulated positive experience and adding to it new organizational elements that increase the adaptability while retaining the traditional high school positive specificity. Although one goal of reorganization of the old mechanism, "management" aspect of solving this problem can not be defined uniquely for all schools because it depends on many factors and operating conditions of a particular institution. Among them are innovative and creative managers of all levels of government and their commitment to radical change of internal relations, a new organizational culture, creativity and commitment of each employee. Optimization of management through timely changes, flexible regulation, corresponding to the challenges of the present, will allow not only to seek competitive advantages, but also to survive and develop in the long run, on the basis of achieving the balance of the micro and macro environment, ensuring the strategic task of the quality of the scientific and educational process. Further research should be aimed at increasing the effective functioning of universities, stimulating employees, and creating a resource-saving policy aimed at meeting the needs of consumers at all levels.

## References

- Asaul, A.N., Kaparov, B.M. (2007). Upravlenye 1. 1. vysshym uchebnym zavedenyem v uslovyyakh шим учебным заведением в условиях ynnovatsyonnoy ekonomyky [Management of higher инновационной education in the conditions of an innovative A. H. Асаул, Б. М. Капаров; под ред. economy]. Eds. d.e.n, prof. A.N. Asaula SPb.: д.э.н, проф. А. Н. Асаула – СПб.: «Humanystyka». 280 p. [in Russian].
- Boholib, T.M. (2004). Pryntsypy upravlinnya 2. vuzom [Principles of management of the high school]. управління вузом / Т. М. Боголіб. – Kyiv: Znannya. 204 p. [in Ukrainian].
- Hryshchenko, I.M. Economic activity of higher 3. educational institutions [Economic activity of higher діяльність вищих навчальних заклаeducational establishments]. Retrieved from: дів: http://er.knutd.com.ua/bitstream/123456789/790/1/V9 0sp\_P021-028.pdf [in Ukrainian].
- Hryshchenko, I.M. (2014). Profesiyna osvita v 6789/790/1/V90sp\_P021-028.pdf. systemi ekonomichnykh doslidzhen: monohrafiya 4. [Professional education in the system of economic віта в системі економічних дослідresearch]. Kyiv: Hramota. 384 p. [in Ukrainian].
- Hryshchenko, Tsymbalenko, I.M., Nefedova, T.M. (2015). Pidvyshchennya efektyvnosti 5. diyal'nosti vyshchykh navchal'nykh zakladiv yak ефективності peredumova zabezpechennya potreb rynku pratsi навчальних закладів як передумова [Improving the efficiency of higher education забезпечення потреб ринку праці / І. institutions as a precondition for securing the needs of M. Грищенко, H. B. Цимбаленко, Т. the labor market]. Rynok pratsi ta zaynyatist' М. Нефедова // Ринок праці та naselennya, #2(43): 32–35 [in Ukrainian].
- Druker, P. (2001). Effektyvnoe upravlenye.  $\mathbb{N}2(43)$ . C.32–35. Ekonomycheskye zadachy y optymal'nye reshenyya 6. [Effective management. Economic objectives and управ¬ление. Экономические задачи

## Література

- Асаул А. Н. Управление высэкономики «Гуманистика», 2007. – 280 с.
- Боголіб Т. М. К.: Знання, 2004. – 204 с.
- Грищенко І. М. Економічна [Електронний pecypc] І. М. Грищенко. – Режим доступу: http://er.knutd.com.ua/bitstream/12345
- Грищенко І. М. Професійна осжень: монографія / І. М. Грищенко. – N.V., К.: Грамота, 2014. 384 с.
  - Грищенко І. М.Підвищення діяльності зайнятість населення. – 2015. –
  - Друкер Π. Эффективное

- optimal solutions]. Translation from English M. и оптимальные решения / П. Друкер; Kotelnykovoy. Moscow: FAYR-PRESS. 288 р. [in пер. с англ. М. Котельниковой. – М.: Russian].
- 7. Kremen, (2010).Filosofiya 7. V.H. lyudynotsentryzmu v osvitn'omu prostori [Philosophy ноцентризму в освітньому просторі / of human-centeredness in the educational space]. APN В. Г. Кремень; АПН України. – К.: Ukrayiny. Kyiv: T-vo "Znannya" Ukrayiny. 520 p. [in | Т-во "Знання" України, 2010. – 520 с. Ukrainian].
- Lend, P.E. (1995). Menedzhment yskustvo искуство управлять: секреты и опыт 8. upravlyat': sekrety y opyt menedzhmenta [Management – the art of managing: ]Э. Лэнд; пер. с англ. – М.: ИНФА-М, the secrets and experience of practical management]. 1995. – 784 c. Translation from English. Moscow: YNFA-M. 784 р. 9. Мармаза О. І. Інноваційні підходи
- Marmaza, O.I. (2004). Innovatsiyni pidkhody do навч.метод. посібник / О. І. Мармаза. 9. upravlinnya navchalnym zakladom: navch.-metod. posibnyk [Innovative approaches to the management of an educational institution]. Kharkiv: Osnova; 10. Peters T. J. Re-imagine! Business Sudak; Kyiv: MAUP. 240 p. [in Ukrainian].
- Peters, T.J. (2006). Re-imagine! Business T. J. Peters. London: Published by Excellence in a Disruptive Age. London, Published by DK Publishing (Dorling Kindersley), DK Publishing (Dorling Kindersley). 352 p.
- 11. Rudynhs, B. (2010). Unyversytet v ruynakh 11. Рудингс Б. Университет в руинах [University in ruins]. Translation from English Vysshaya A.M. Korbuta; Hos. un-t. ekonomyky. Moscow: Yzd. Dom Hos. un-ta Vysshey школа экономики. – М.: Изд. Дом shkoly ekonomyky. 304 p. [in Russian].
- 12. Taverny, K. (2003).menedzhment v evropeyskom kontekste [Strategic 12. Management in the European institutcionalnye контексте Trategicheskoe upravlenie issledovaniia v vysshem obrazovanii: Materialy pervoi Тратегическое mezhdunarodnoi konferentcii – Strategic Management институциональные исследования в and Institutional Research in Higher Education: высшем образовании: Proceedings of the First International Conference первой международной конференции (Moscow, 3–4 dekabria 2002). Kazan: Fyztekhpress (Москва, 3–4 декабря 2002 г.), – [in Russian].
- 13. Shekshnya, S.V. (2000). Upravlenye personalom 13. Шекшня С. В. Управление перsovremennoy orhanyzatsyy [Personnel management of a modern organization. 4 ed. Moscow: Byznes-shkola С. В. Шекшня. – 4-е изд., перераб. и "Yntel-Syntez". 412 p. [in Russian].
- 14. Shcherbak, V.H. (2005). Upravlinnya personalom Синтез", 2000. 412 с. pidpryyemstva [Personnel management of the 14. Щербак В. Г. Управління перenterprise]. Kharkiv: KhNEU. 220 p. [in Ukrainian].

- ФАИР-ПРЕСС, 2001. 288 с.
- Кремень В. Г. Філософія люди-
- Лэнд П. Э. Менеджмент praktycheskoho практического менеджмента / Питер
  - до управління навчальним закладом: – Х.: Основа; Судак; К.: МАУП, 2004. - 240 c.
  - Excellence in a Disruptive Age / 2006. − 352 p.
- Б. Рудингс; пер. shkola А. М. Корбута; Гос. ун-т. Высшая Гос. ун-та Высшей школы Stratehycheskyy экономики, 2010. – 304 с.
  - Таверньи К. Стратегический Context]. менеджмент В европейском К. Таверньи управление Материалы Казань: Физтехпресс, 2003.
    - соналом современной организации / доп. - М.: Бизнес-школа "Интел-
    - соналом підприємства / В. Г. Щербак. – Харків: ХНЕУ, 2005. – 220 с.