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FINANCIAL AND ECONOMIC ASSESSMENT OF INVESTMENT AND INNOVATIVE PROJECTS ON THE IMPROVEMENT OF PERSONNEL MANAGEMENT SYSTEM

This article proposes a methodology for financial and economic evaluation of innovative projects improving HRM systems at Russian enterprises. The basis for the proposed system is the UNIDO technique applied for commercial evaluation of investment projects. Features of the proposed methodology are related to specific localization of projects under consideration, the division must reduce the number of human resource management goals and increase productivity, or increase sales. The application is illustrated by calculating the commercial viability of a project improving enterprise personnel management under different variants of goals and project localization.

Keywords: investment project assessment; personnel management; human resources.
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У статті запропоновано методологію фінансово-економічного оцінювання інноваційних проектів з вдосконалення систем управління персоналом на російських підприємствах. Базою для пропонованої системи розрахунків є методика UNIDO для комерційного оцінювання інвестиційних проектів. Особливості методології, пов'язані зі специфікою локалізації розглянутих проектів, а також обов'язковим розподілом цілей управління персоналом: скороченням кількості персоналу та підвищенням продуктивності праці, збільшенням обсягів продажів. Методику проілюстровано розрахунком комерційної ефективності проекту вдосконалення управління персоналом підприємства у різних варіантах сформульованої цілі та локалізації проекту.

Ключові слова: оцінка інвестиційних проектів; управління персоналом; людські ресурси.

Рис. 1. Табл. 2. Літ. 26.

Александр Р. Бриль, Ольга В. Калинина, Игорь В. Ильин ФИНАНСОВО-ЭКОНОМИЧЕСКАЯ ОЦЕНКА ИНВЕСТИЦИОННО-ИННОВАЦИОННЫХ ПРОЕКТОВ ПО СОВЕРШЕНСТВОВАНИЮ СИСТЕМЫ УПРАВЛЕНИЯ ПЕРСОНАЛОМ

В статье предложена методология финансово-экономической оценки инновационных проектов по совершенствованию систем управления персоналом на российских предприятиях. Базой предлагаемой системы расчетов является методика UNIDO для коммерческой оценки инвестиционных проектов. Особенности предлагаемой методологии связаны со спецификой локализации рассматриваемых проектов, а также обязательным разделением целей управления персоналом: сокращением численности и повышением производительности труда; увеличением объемов продаж. Методика проиллюстрирована расчетом коммерческой эффективности проекта совершенствования управления персоналом предприятия в различных вариантах поставленной цели и локализации проекта.

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Ключевые слова: оценка инвестиционных проектов; управление персоналом; человеческие ресурсы.

Introduction. Evaluation of the effectiveness of investment in human capital as the most important resource of any organization has always been relevant for Russian Federation and other countries of the world. Investment in human capital and, in particular, in the improvement of personnel management system at enterprises have the same objectives as the investment in fixed assets while opening new businesses. Investments in personnel management may be aimed to reduce transaction costs and increase the volume of sales and the growth of corporate value and gain extra profit. In this connection, economic and financial evaluation of the projects aimed at development of human resource management systems can be based on a common methodology as for commercial project evaluation, which is represented by the so-called UNIDO method (Berens and Havranek, 1995), and is used by numerous banks to evaluate effectiveness of projects on the territory of Russian Federation and other countries.

Recent research and publications analysis. Fundamental issues on the effectiveness of personnel have been considered by G. Bekker (1993), A.J. Kibanov (1994), A.A. Lado and V.C. Wilson (1994), T.W. Schultz (1971), P.M. Wright et al. (1994).

Various aspects of the investment activities in relation to human resources have been considered in a number of studies of Russian and foreign scientists, such as E.A. Borovskih (2012), E.A. Budagova (2009), M.E. Grachik (2011), O.N. Jakasheva and D.V. Rodin (2013), T.A. Korkina (2011), L.V. Nikolova et al. (2015), L.V. Orlova (2011), T.S. Pitel (2012), A.A. Rogova (2011), J.D. Shaw et al. (2013), G.I. Sidunova and A.E. Morozov (2009), O.A. Zhabina (2013) and others.

Evaluation of various elements of personnel management system as an innovative component of the company is reflected in the works of V.V. Feshhenko and N.J. Shelikova (2011), E.N. Golovanova (2010), K. Laursen and N.J. Foss (2013), A.N. Tarasov (2009), E.A. Utkin et al. (2002) and others.

Measurement and diagnostics of enterprises' human resources and optimization of personnel have been studied by A.M. Apina (2014), I.M. Friman (2012), K.V. Kopteva and M.A. Menshikova (2014) and others.

Research objective. The objective of this paper is to identify the characteristics and the specific application of UNIDO methodology for financial and economic evaluation of projects in the field of personnel management.

Methodology. Implementation of an investment project to improve personnel management system includes two types of activities: economic evaluation and assessment of financial viability of the project. Schematic presentation of a mechanism for implementing this type of project is shown in Figure 1.

Since most of the investments in HR management system are carried out on the existing enterprises, the general scheme for their financial and economic evaluation should include two stages:

Step 1. Determination of cost-effectiveness on the basis of payback and discounted rates calculations.

Step 2. Impact analysis of project implementation on productivity and profit growth of the company, return on sales and assets.

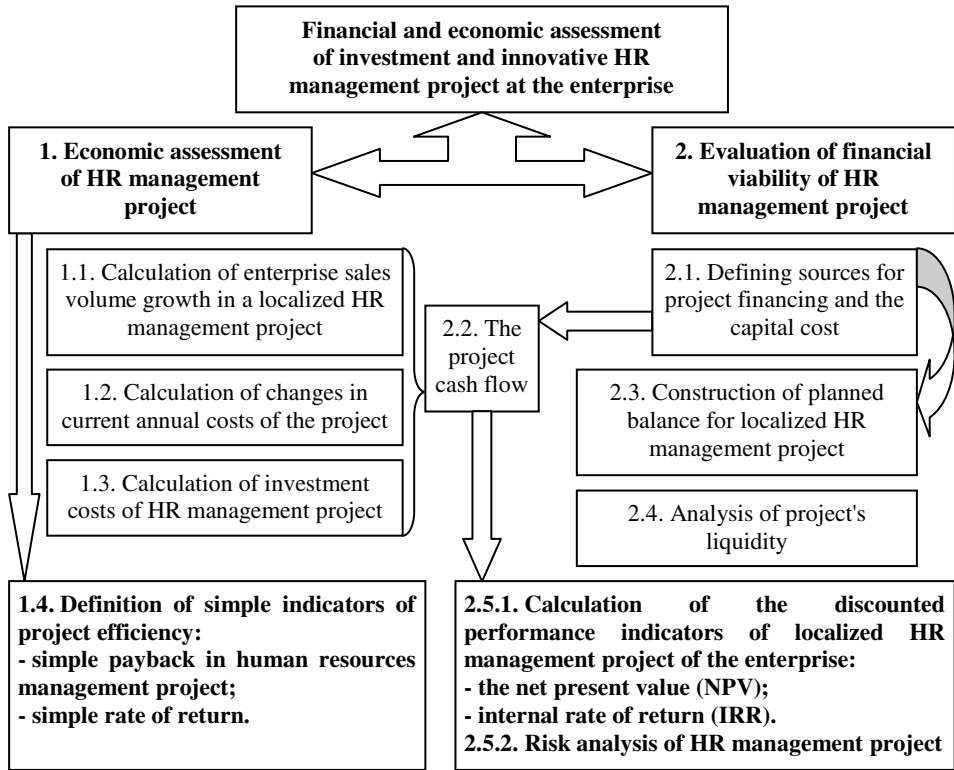


Figure. 1. Scheme for financial and economic evaluation of investment projects on personnel management, authors'

Key research findings. Worldwide investment in staff is considered to be one of the most profitable forms of capital investment. Based on the analysis of literary sources, presented prior in this work, it could be stated that the majority of investment projects on the development of personnel management system at enterprises aim at the growth of labor productivity and reduction of headcount. These projects have indirect impact on enterprise profits by reducing production unit costs and reducing ongoing costs. There are special aspects in economic efficiency calculation for such projects, both in terms of determining cost recovery, and at the stage of assessing the impact of the project on profitability and efficiency of the company.

As a particular aspect of personnel investment estimation it should also be noted that a significant share of these investments are carried at the expense of company's turnover, thus requiring quick return, i.e. minimum payback.

The following items are included in the work of personnel management system: automation and human resource planning, determining recruitment needs, selection and hiring employees, training and adaptation, career opportunities organization, certification and evaluation of official duties performance, motivation, stimulation, organization of payment and labor regulation.

The list of elements for a personnel management system can be updated and expanded. From the economic assessment perspective it is offered to divide them into 3 groups for calculation:

1. Elements, the investment in which affect only the reduction of labor costs, the number of staff and current costs and the cost of production.
2. Investments in the elements which affect only on the growth of sales volume.
3. Elements of personnel management system, which affect both the reduction in current expenditures, and the increase in sales volume.

Table 1 shows the classification of typical elements of personnel in accordance with the above groups. It should be noted that many of these elements of the system according to the project focus can be assigned to different groups. For example, such a complex element as "payment organization and labor regulation " can be used both for reducing the number of personnel problems, and for increasing sales volumes at enterprises. In this regard, Table 1 allows selecting the model elements for each project under consideration in accordance with the intended objectives.

Table 1. Classification of the basic elements in a personnel management system depending on the project focus, authors'

| Reduction of operating expenses and production costs | Increase in product sales volume | Reduction of operating costs and increase in product sales volume |
|---|--|---|
| <ul style="list-style-type: none"> - retraining and advanced training of personnel; - automation of work in managerial structural subdivisions; - personnel marketing and recruitment planning; - outsourcing of administrative work; - improvement of HR department work and organization of labor in individual divisions etc. | <ul style="list-style-type: none"> - motivation and encouraging staff in industrial and commercial departments of enterprises; - opening of assessment-centers and centers for personnel training; - outsourcing production and trade departments; - elimination of industrial conflicts and reduction in staff turnover in manufacturing and trade divisions etc. | <ul style="list-style-type: none"> - payment organization and labor regulation; - improvement of organizational structure; - increase in production culture and qualification of production staff; - automation of work in manufacturing and trading structural subdivisions etc. |

For example, motivation and stimulation of sales department staff or opening of independent centers for specialized education are intended to increase the volume of sales and profit. On the other hand, automation of work in production units and training personnel to perform new functions primarily affect the reduction of labor, productivity growth and reduction of current expenses of the enterprise. Research and analysis on the existing enterprises show that the most effective elements of this system are those that not only provide reduction in headcount, but also an increase in sales volumes. They affect the growth of labor productivity and getting more profits more far above those related to downsizing only.

A large group of projects aimed at improving personnel management has a special character and is connected with only individual issues solving, such as organization of performance revision or competency model building, creation of a basis for conflict resolution. These questions are difficult to reconcile with the change in sales

and profits. For such projects, it is advisable to identify the most cost-effective option to assess the cost of a project.

To assess the cost-effectiveness of staff except the main payment indicators of production and intensity, the mechanisms of transition from them to the amount of savings in operational costs and profit is necessary, as well as the mechanism of conversion rates of planned (actual) productivity in individual divisions up to the company in general. It is possible to use different methods, based on a logical approach, statistical analysis and expert assessments.

Difficulties and complexities in calculations of investment efficiency in improving HR management are triggered by many factors, not related to work organization, but influencing labor productivity. For example, the cost index of production significantly depends on supply and demand changes at the market, as well as fluctuations in selling prices for products of the company, i.e. by the factors beyond company's control. In addition, the work, not aimed at staff but replacement of equipment, logistics and inventory management can affect calculations. Therefore, for correctness and validity purposes in the first place it is necessary to **clearly define the purpose of the project** at the immutability of extraneous factors.

For example:

- motivation and stimulation of personnel downsizing at constant volumes of product sales;
- motivating and encouraging employees to improve products quality and increase sales volumes.

Here, the method of efficiency calculating will be different despite the same HR management system element. These differences will be determined by changes in the technology implementation at each project.

In common to currently existing HR policies improvement projects on enterprises objective can be defined as a decrease in turnover. However, it should be borne in mind that in some parts of enterprise, high turnover determines the need for additional training costs, more manufacturing defects, overtime payments and other substantial loss. In other divisions, turnover does not affect sales, but is inconvenient for work and usually creates additional unpaid load on other employees. Therefore, the goal in this project should be detailed further: for example, the reduction of turnover in manufacturing division for minimizing waste by 30% and eliminating overtime payments. Clearly defined project objectives allow develop more reasonable technology and implementation and, respectively, create an information base for financial results calculation.

Thus, to evaluate the effectiveness of HR management system improvement project it is necessary to clarify the specific purpose (best of all – reducing the number of staff at other factors constant, or increase in sales) and to localize the project, select it from other enterprise development projects.

On the basis of localization it is possible to develop a detailed project technology, i.e. list of works and operations that must be completed for the project. This is performed in accordance with the rules of construction of the organizational section of the business plan to provide the basis for calculation of investment and operating costs of the project.

It for valid and reliable assessment of financial and economic efficiency of investment in HR management two questions should be resolved firstly:

1. Definition of project objectives.
2. Detailed design of project technology.

Example of project calculations. The considered approach is used for development of financial sections in a business plan and for commercial assessment of investment project on HR management improvement at small and medium-sized manufacturing enterprises.

As an example let us consider a project of personnel motivation and production culture improvement of a medium size production plant (the name of the company isn't provided, real initial figures are slightly changed). The enterprise makes various plastic products for food and construction industry (extra packing, pipes and other accessories). The company with the average number of 60 employees, annual sales volume of 360 mln RUB and the average monthly salary of 40 thsd RUB per person per month, has high losses from turnover, up to 2.5 mln RUB per year.

The first version of the project. It is planned to strengthen the production culture and improve motivation of employees to reduce headcount by 4 people (7.2% of the average number) and reduce losses from turnover up to 0.5 mln RUB per year.

Project technology involves investments in layout of workspaces, strengthening social safety and retraining of personnel in the amount of 2 mln RUB. In addition, the project covers a special bonus fund from profit in the amount of 10% of payroll and debug of management accounting system for effective bonus.

The project does not provide for growth in sales volume, so additional profit from sales to calculate the payback period for this case is determined on the basis of the value of reducing the current costs of the project.

Reduction of staff by 4 people allows the following savings considering payments to non-budgetary social funds (30% in the Russian Federation):

$$4 \times 40 \times 1.3 = 208 \text{ ths RUB per month, or } 2.496 \text{ mln RUB per year.}$$

Planned cost savings from reducing the losses associated with staff turnover is 2 mln RUB per year.

Additional current costs for the system of bonuses will be:

$$2.4 \times 0.1 \times 1.3 = 312 \text{ ths RUB per month, or } 3.744 \text{ mln RUB per year.}$$

Additional current costs in the management accounting system for bonuses are 20 ths RUB per month, or 240 ths RUB per year. Total overall savings on operating costs (or additional income from sales) for the project at other elements constant will be equal to:

$$2.496 + 2 - 3.744 - 0.24 = 0.512 \text{ mln RUB per year.}$$

The payback period will be calculated in this case as follows: $2 / 0.512 = 3.9$ years.

For small businesses this project is global in nature and rather ineffective. Although productivity growth is 7.2% $(360 / (60 - 4) = 6.43 \text{ mln RUB per person per year, compared with } 6 \text{ mln RUB in the original version, return on sales increased by only } 0.14\% (0.512 \times 100 / 360 = 0.14).$

The second version of the project. A more detailed analysis of the company showed that high staff turnover is mainly associated with production division of the company that is underutilized because of poor sales department work. Therefore, we developed

the second version of the project: motivation of only sales staff to increase sales volumes of the company's products by 10%. Market analysis has shown that with the expansion and intensification of sales managers it is a realistic plan.

There are 5 people in the sales department. Labour productivity in this division is $360 / 5 = 60$ mln RUB per person per year. The aim of the project is to increase the sales volume of up to $360 \times 1.1 = 396$ mln RUB due to sales managers performance growth by 10%, i.e., they have to sell company's products for an average of 66 mln RUB per manager per year.

Project technology involves investments in advertising, software and equipment of sales managers with special means of transport and communications in the amount of 3 mln RUB. In addition, the project includes a special bonus fund from profit in the amount of 50% of sales payroll and debug of management accounting system for effective bonus.

The project provides for an increase in sales volume, so additional income to calculate the payback is determined in this case based on the amount of growth of sales profit. Cost of goods sold (operating expenses) in the original version is 344 mln RUB per year. I.e. sales profit will be equal to: $360 - 344 = 16$ mln RUB, and the return on sales (ROS): $16 \times 100 / 360 = 4.44\%$.

With the growth in sales volumes by 10% cost of sales, taking into account the share of fixed costs 18.9% (65 mln RUB per year) should increase, excluding the additional motivation of sales managers up to 373 mln RUB, and profit from sales is expected to increase from 16 to 23 mln RUB per year.

Operating costs in the company connected with the implementation of the project will increase for the amount of the additional premium payment (50%) for 5 sales managers. It will make up, considering average monthly wage of workers of 45 thsd RUB per person and taking into account contributions to extra-budgetary social funds: $45 \times 5 \times 0.5 \times 12 \times 1.3 = 1.755$ mln RUB per year.

Additional current costs in sales managers bonus will reduce the planned increase in profits from sales from 7 mln RUB to the value of: $23 - 16 - 1.755 = 5.245$ mln RUB per year.

The payback period in this case is $3 / 5.245 = 0.57$ years.

Calculation example shows that even with an increase in investments by 1.5 times, more precise localization of the project and focus on sales growth can significantly improve project performance: labor productivity increased by 10% as compared with 7.2% in the first variant, return of sales (ROS) increases to 5.36% ($(23 - 1.755) / 396 = 5.36\%$).

The main reason for higher efficiency is as follows: the expected increase in profit from sales 5.245 mln RUB per year in the second option is much more significant as compared with a gain of only 0.512 mln RUB per year in the first one.

The calculation results are summarized in Table 2.

Another common investment in personnel management is to improve enterprise's organizational structure. Projects of this kind are aimed at raising the level of management, increase production and sales volumes, which would eventually lead to reduction in headcount. Scheme of project performance assessment will be the same as in the previous example: clear definition of objectives, project localization, implementation of technology development, costing and financial results, risk analysis.

Table 2. The results of innovation and investment projects evaluation aimed at the improvement of the personnel management system, authors' calculations

| Indicators | Personnel motivation project versions | | |
|--|---------------------------------------|---------------|-------------------|
| | Basic version | First version | Second version |
| Objective of the project | | Downsizing | Increase in sales |
| The number of employees, pers. | 60 | 56 | 60 |
| Investments, mln RUB | - | 2 | 3 |
| Volume of sales, mln RUB | 360 | 360 | 396 |
| Current expenses (cost), mln RUB | 344 | 343.488 | 374.755 |
| Operating profit, mln RUB | 16 | 16.512 | 21.245 |
| Payback period, years | - | 3.9 | 0.57 |
| Productivity (number of sales per person / year) | 6 | 6.43 | 6.6 |
| Return on sales, % | 4.44 | 4.58 | 5.36 |

Among the projects on organizational structure improvement the most effective is staff outsourcing projects in many types of industries. As a result, such projects can significantly reduce the number of employees and, consequently, labor costs and social security payments.

In addition, by implementing such projects, many problems that are almost impossible to quantify can be solved. These are the issues related to conflict situations and labor disputes, seasonal load workers, social programs. In assessing the effectiveness of personnel outsourcing the following features should be considered:

- the need for a revision of current cost savings in these projects (mainly related to labor relations);
- reduction of assets, premises and workplaces, required for production and sales in the company.

Based on the above, we can draw the following **conclusions** on the financial and economic evaluation of the investments in HR management system effectiveness of enterprises:

1. There has to be a common profitability calculation methodology as a basis of assessment profitability, payback period and discounted performance indicators presented in the UNIDO methodology.

2. Since personnel management system in most cases is included in other development projects or intersects with them, there are difficulties with separation of effects and costs from different activities that, in turn, requires a clear project's localization with definition of specific measurable targets and development of detailed project technology.

3. Since HR projects are often aimed at reduction of personnel number or time spent, and not on sales growth, it is advisable to apply savings in operational costs (cost price) indicator for calculation of additional profit.

4. Assessing any project of management staff improvement at the operating enterprise it is necessary, in addition to profit and return, to determine what will happen to the main indicators of company performance, such as productivity and profitability of sales with project implementation.

References:

- Алина А.М.* Направления повышения эффективности труда персонала на основе стоимостного подхода к управлению кадровыми затратами // Вестник Саратовского государственного социально-экономического университета. – 2014. – №1. – С. 27–30.
- Апіна А.М.* Napravlennia povysheniia effektivnosti truda personala na osnove stoimostnogo podkhoda k upravleniiu kadrovymi zatratami // Vestnik Saratovskogo gosudarstvennogo sotcialno-ekonomicheskogo universiteta. – 2014. – №1. – S. 27–30.
- Беккер Г.* Человеческий капитал (главы из книги). Воздействие на заработки инвестиций в человеческий капитал // США: экономика, политика, идеология. – 1993. – №11. – С. 19–145.
- Bekker G.* Chelovecheskii kapital (glavy iz knigi). Vozdeistvie na zarabotki investitsii v chelovecheskii kapital // SShA: ekonomika, politika, ideologiya. – 1993. – №11. – S. 19–145.
- Беренс В., Хавранек П.М.* Руководство по подготовке промышленных технико-экономических исследований / Пер. с англ. перераб. и дополн. изд. – М.: Интерэксперт, 1995. – 343 с.
- Berens V., Khavranek P.M.* Rukovodstvo po podgotovke promyshlennykh tekhniko-ekonomicheskikh issledovaniy / Per. s angl. peregrab. i dopoln. izd. – M.: Interekspert, 1995. – 343 s.
- Боровских Е.А.* Эффективность инвестиций в человеческий капитал // Ярославский педагогический вестник. – 2012. – №1, Т. 1. – С. 104–108.
- Borovskikh E.A.* Effektivnost investitsii v chelovecheskii kapital // Iaroslavskii pedagogicheskii vestnik. – 2012. – №1, Т. 1. – S. 104–108.
- Будагова Е.А.* Инвестиционная политика крупного бизнеса в сфере профессионального образования // Terra Economicus. – 2009. – Вып. 2–3, Т. 7. – С. 112–114.
- Budagova E.A.* Investitsionnaia politika krupnogo biznesa v sfere professionalnogo obrazovaniia // Terra Economicus. – 2009. – Vyp. 2–3, Т. 7. – S. 112–114.
- Голованова Е.Н.* Развитие человеческого капитала как элемент механизма инновационного развития предприятия // Транспортное дело России. – 2010. – №125. – С. 51–52.
- Golovanova E.N.* Razvitie chelovecheskogo kapitala kak element mekhanizma innovatsionnogo razvitiia predpriiatiia // Transportnoe delo Rossii. – 2010. – №125. – S. 51–52.
- Грачик М.Е.* Инвестиции в человеческий капитал как фактор экономического развития предприятия // Транспортное дело России. – 2011. – Вып. 9. – С. 32–35.
- Grachik M.E.* Investitsii v chelovecheskii kapital kak faktor ekonomicheskogo razvitiia predpriiatiia // Transportnoe delo Rossii. – 2011. – Vyp. 9. – S. 32–35.
- Жабина О.А.* Инвестиции в человеческий капитал // Актуальные проблемы естественных и гуманитарных наук. – 2013. – №5. – С. 23–24.
- Zhabina O.A.* Investitsii v chelovecheskii kapital // Aktualnye problemy estestvennykh i gumanitarnykh nauk. – 2013. – №5. – S. 23–24.
- Кибанов А.А., Захаров Д.К.* Организация управления персоналом на предприятии. – М.: ГАУ, 1994. – 80 с.
- Kibanov A.A., Zakharov D.K.* Organizatsiia upravleniia personalom na predpriatii. – M.: GAU, 1994. – 80 s.
- Коптева К.В., Меньшикова М.А.* Методика диагностики кадрового потенциала промышленного предприятия // Auditorium. – 2014. – №2. – С. 156–168.
- Kopteva K.V., Menshikova M.A.* Metodika diagnostiki kadrovogo potenciala promyshlennogo predpriiatiia // Auditorium. – 2014. – №2. – S. 156–168.
- Коркина Т.А.* Сущность и классификация инвестиций в человеческий капитал предприятия // Вестник Челябинского государственного университета. – Серия: Экономика. – 2011. – Вып. 32. – №16. – С. 101–108.
- Korkina T.A.* Sushchnost i klassifikatsiia investitsii v chelovecheskii kapital predpriiatiia // Vestnik Cheliabinskogo gosudarstvennogo universiteta. – Seriya: Ekonomika. – 2011. – Vyp. 32. – №16. – S. 101–108.
- Орлова Л.В.* Инвестиции в образование персонала как эффективная система управления персоналом // Известия Самарского научного центра Российской академии наук. – 2011. – Вып. 2/2, Т. 13. – С. 315–317.
- Orlova L.V.* Investitsii v obrazovanie personala kak effektivnaia sistema upravleniia personalom // Izvestiia Samarskogo nauchnogo tcentra Rossiiskoi akademii nauk. – 2011. – Vyp. 2/2, Т. 13. – S. 315–317.

Путель Т.С. Инвестиционная стратегия развития интеллектуального капитала // Среднерусский вестник общественных наук.— 2012.— №1.— С. 132–137.

Pitel T.S. Investitsionnaia strategiia intellektualnogo kapitala // Srednerusskii vestnik obshchestvennykh nauk.— 2012.— №1.— С. 132–137.

Рогова А.А. Разработка системы стратегий инвестирования в формирование и развитие человеческого капитала // Вестник международного института экономики и права.— 2011.— №4.— С. 16–18.

Rogova A.A. Razrabotka sistemy strategii investirovaniia v formirovanie i razvitie chelovecheskogo kapitala // Vestnik mezhdunarodnogo instituta ekonomiki i prava.— 2011.— №4.— С. 16–18.

Сидунова Г.И., Морозов А.Э. Инвестиции в человеческий и кадровый капитал на предприятии // Известия Волгоградского государственного педагогического университета.— 2009.— №3.— С. 87–91.

Sidunova G.I., Morozov A.E. Investitsii v chelovecheskii i kadrovii kapital na predpriatii // Izvestiia Volgogradskogo gosudarstvennogo pedagogicheskogo universiteta.— 2009.— №3.— С. 87–91.

Тарасов А.Н. Влияние человеческого капитала предприятия на его инновационный потенциал // Транспортное дело России.— 2009.— Вып. 5.— С. 13–15.

Tarasov A.N. Vliianie chelovecheskogo kapitala predpriatii na ego innovatsionnyi potentsial // Transportnoe delo Rossii.— 2009.— Вып. 5.— С. 13–15.

Уткин Э.А., Сатабаев К.Т., Сатабаев Р.Г. Инновации в управлении человеческими ресурсами предприятия. — М.: ТЕИС, 2002. — 304 с.

Utkin E.A., Satabaev K.T., Satabaev R.G. Innovatsii v upravlenii chelovecheskimi resursami predpriatii. — М.: TEIS, 2002. — 304 с.

Фещенко В.В., Щеликова Н.Ю. Управление инновационным потенциалом человеческого капитала предприятия и методы его оценки // Вестник Брянского государственного университета.— 2011.— №3.— С. 126–130.

Feshchenko V.V., Shchelikova N.Iu. Upravlenie innovatsionnym potentsialom chelovecheskogo kapitala predpriatii i metody ego otcenki // Vestnik Brianskogo gosudarstvennogo universiteta.— 2011.— №3.— С. 126–130.

Фриман И.М. Оценка уровня устойчивости развития человеческого капитала как фактор повышения экономической безопасности промышленного предприятия // Бизнес Информ.— 2012.— №6.— С. 219–222.

Friman I.M. Otsenka urovnia ustoychivosti razvitiia chelovecheskogo kapitala kak faktor povysheniia ekonomicheskoi bezopasnosti promyshlennogo predpriatii // Biznes Inform.— 2012.— №6.— С. 219–222.

Якашева О.Н., Родин Д.В. Некоторые проблемы оценки эффективности инвестиций в человеческий капитал организации // Актуальные вопросы экономических наук.— 2013.— №34.— С. 55–59.

Iakasheva O.N., Rodin D.V. Nekotorye problemy otsenki effektivnosti investitsii v chelovecheskii kapital organizatscii // Aktualnye voprosy ekonomicheskikh nauk.— 2013.— №34.— С. 55–59.

Lado, A.A., Wilson, M.C. (1994). Human Resource Systems and Sustained Competitive Advantage: A Competency-Based Perspective. The Academy of Management Review, 19(4): 699–727.

Laurson, K., Foss, N.J. (2013). Human Resource Management Practices and Innovation. Prepared for the Handbook of Innovation Management. Edited by Mark Dodgson, David Gann and Nelson Phillips. Oxford University Press. 44 p.

Nikolova, L.V., Kuporov, J.J., Rodionov, D.G. (2015). Risk Management of Innovation Projects in the Context of Globalization. International Journal of Economics and Financial Issues, 5(5): 73–79.

Schultz, T.W. (1971). Investment in Human Capital; The Role of Education and of Research. New York, The Free Press. 272 p.

Shaw, J.D., Park, T.-Y., Kim, E. (2013). A resource-based perspective on human capital losses, HRM investments, and organizational performance. Strategic Management Journal, 34(5): 572–589.

Wright, P.M., McMahan, G.C., McWilliams, A. (1994). Human resources and sustained competitive advantage: a resource-based perspective. The International Journal of Human Resource Management, 5(2): 301–326.