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HUMAN RESOURCES MANAGEMENT BASED ON KEY PERFORMANCE INDICATORS (KPI)

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Motivated person is a driving force any company, independent of company's size or purpose. Most companies do not give great value to motivating human resources or they can not properly analyze motivating system. The purpose of the article is to determine the mechanism of effective enterprise and human resource management based on key performance indicators.

An entrepreneur needs to bring the employees' goals closer to the main goals of the enterprise by meeting the needs of the staff, creating the necessary internal factors that give a positive effect and expected results. The main task facing the theorists and practitioners is the search for methods that allow enterprises to achieve their goals, using a new understanding of motivational approaches. One of these approaches is the use of key performance indicators – KPI.

KPI is a demonstration of success in particular situations or in particular singing chains. It is possible to say that KPI – quantitative indicator of the actually reached the results.

Key performance indicators KPI are a set of quantifiable measures that a company uses to gauge its performance over time. These metrics used to determine a company's progress in achieving its strategic and operational goals, and to compare a company's finances and performance against other businesses within its industry.

The KPIs a business follows will depend upon its particular industry, and while some metrics will be important across an organization, each department will likely track KPI metrics specific to its own goals.

KPIs can be used within a company or department to track its goals and determine how best to achieve the best results.

Managing with KPIs often means working to improve leading indicators that will later drive lagging benefits. Leading indicators are precursors of future success; lagging indicators show how successful the organization was at achieving results in the past.

The relative business intelligence value of a set of measurements is greatly improved when the organization understands how various metrics are used and how different types of measures contribute to the picture of how the organization is doing.

Using key performance indicators, companies have the opportunity to formulate a strategy correctly, identify the important factors that influence the outcome of the enterprise, compare the results of staff work and their assessment. With the help of KPI it is possible to approach the system more qualitatively motivating and stimulating staff in the company.

Key words: motivation, system of motivation, human resources, KPI, key performance indicators.

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УПРАВЛІННЯ ЛЮДСЬКИМИ РЕСУРСАМИ НА ОСНОВІ КЛЮЧОВИХ ПОКАЗНИКІВ ЕФЕКТИВНОСТІ (KPI)

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Мотивована особа є рушійною силою будь-якої компанії, незалежно від розміру або мети компанії. Більшість компаній не надають великого значення мотивації

людських ресурсів, або вони не можуть правильно проаналізувати систему мотивації. Метою статті є визначення механізму ефективного управління підприємствами та людськими ресурсами на основі

Ключові слова: мотивація, система мотивації, людські ресурси, КPI, ключові показники ефективності.

Formulation of the problem

In order to evaluate the effectiveness of the worker, it is necessary to evaluate the results of his work in quantitative terms. KPI (Key Performance Indicators) allows you to analyze how much human effort is consistent with the result.

Today, the KPI system is one of the tools on the basis of which companies develop an effective and fair system of motivation for staff. KPI indicators should be calculated based on the company's goals, because they determine their achievements with them. Motivation of employees ensures performance of duties with maximum efficiency. Ukrainian companies are rarely using key performance indicators in the company's management process. The reasons for the unpopularity of this mechanism are:

- ignorance and inability to correctly use KPI;
- lack of managerial experience in the field of modern methods of personnel assessment;
- inapplicability of the foreign mechanism of construction of the KPI to Ukrainian enterprises;
- opposing employees for changes in the organization.

For the successful introduction of KPI and, and increase in the level of motivation of employees, Ukrainian company executives need to gain experience from foreign partners. Foreign enterprises have successfully learned to implement the KPI system. For the most part, key performance indicators are used by large companies, but it is also advisable to use the system at small enterprises.

Analysis of recent research and publications

For many years, many economists and scientists have researched their mechanism for managing the system of motivation based on KPI, in particular, V. V. Kruglov, M. A. Chepenko – they studied the main trends in the formation of mechanisms for motivating personnel at a trade enterprise on the basis of KPI [1], V. N. Yarishina analyzed the advantages and disadvantages of using KPI, the principles of system implementation [2], O. Ye. Kuzmin and O. M. Bodaretzskaya investigated the relationship between the concepts of “motivation” and “motivating” in the system of motivating the staff of enterprises [24], V. Kononenko – formulated an approach to building a system of motivation based on a balanced system of indicators [3], V. V. Titiaev, A. A. Shakhbazova [4], A. K. Klochkov – researched KPI in the practice of foreign enterprises [5], O. A. Gavrysh, L. E. Dovgan, I. M. Kreydych, N. V. Semenchenko studied the concept of “labor potential” enterprises “and methods of influence on it [6], etc.

Setting goals

The objectives of this article are to study the stages of the formation of a system of personnel motivation based on key performance indicators (KPIs).

Presenting main material

Effectively developed system of motivation characterizes a set of interrelated measures that stimulate an individual employee or labor collective as a whole to achieve the individual and common goals of the enterprise (organization) [15].

The management of human resources is aimed at ensuring that employees work in a coordinated manner, have an interest in what they do and in the results they get. To be able to manage human resources, you need to use an effective system of motivation. Study of literary sources in the given problem, has made it possible to systematize the basic approaches to the definition of the concept of “motivating” by different scientists and scientists, presented in the table 1.

Needs generate in the employee's minds an interest, and interest in turn – motives. Accordingly, motives predetermine a certain behavior of the employee, encourage him to commit acts and actions in order to receive rewards and achieve personal goals [14].

In order to give a person the right motivation to perform his duties, the manager needs to have an understanding of what goals to be achieved and for what period. For this purpose, it is considered necessary to assess the employee's performance with key performance indicators.

Table 1

Approaches to the definition of “motivating”

№	Author	Definition
1.	M. Meskon, M. Albert, F. Hedouri [7, p. 360]	The process of motivating people to work, which involves the use of motives of human behavior for the achievement of personal goals or goals of the organization.
2.	D. Bohunya [9]	The subjective aspect of human activity, represented by a wide range of needs, desires, feelings, interests.
3.	A. Kalinichenko [10]	The accumulation of internal and external driving forces that prompt a person to work, determine the type of its behavior, orientate towards achieving the goals
4.	V. Shynkarenko, O. Krivoruchko [11]	The process undertaken by managers is to identify the forces (motives) and to develop incentives that motivate individuals to act toward achieving their personal goals and goals.
5.	M. Mexon [12]	The process of inducing oneself and others to work to achieve the personal goals and goals of the organization.
6.	A. M. Colot[13]	The aggregate of internal and external driving forces that prompt a person to work, determine the behavior, forms of activity, give this activity orientation, focused on achieving the personal goals and goals of the organization.
7.	O. Ye. Kuzmin, O. G. Melnyk [18]	The type of management activity that provides the process of inducing yourself and other employees in activities aimed at achieving personal goals and objectives of the organization.
8.	S. A. Shapiro [19]	The process of conscious choice of a person of a type of behavior, determined by the complex influence of external (stimuli) and internal (motives) factors
9.	V. I. Chobitok, S. V. Dybalina.[20]	A process aimed at identifying staff capabilities by influencing its internal and external driving forces (needs, desires, feelings and interests) with material and moral incentives in order to achieve its personal goals and objectives of the enterprise.
10.	F. I. Khmil [21]	The key to understanding human behavior and opportunities to influence it that is causes, incentive incentives for activities.

Source: [7, p. 360; 9; 10; 11; 12; 13; 18; 19; 20; 21].

Table 2

Factors of motivation of employees of the organization

Motivational factor	The degree of satisfaction
Material encouragement	The need for high wages, material rewards, a set of benefits and allowances.
Comfortable working conditions	Need to have good working conditions and a comfortable environment.
Structuring work	The need for a clearly structured work, the rules for its implementation are set.
Social contacts	The need to communicate with a wide range of people, have close relationships with colleagues.
Recognition of merit	The need for others to appreciate the achievement of an individual.
The pursuit of achievement	The need to set complicated goals for you and achieve them.
Power and influence	The desire to lead others, the desire for competition and influence.
Diversity and change	The need for constant change, the desire to be ready for action.
Self improvement	The need for self-improvement and development as a person.
Interesting and useful work	The need to have a socially useful job.

Source: [25, c. 106].

Before applying the tools and methods of motivating staff, it is necessary to determine that there is a motive for a person. As a rule, this is not one factor, but several. Analysis of AA Cheban made it possible to distinguish factors of motivation of employees of the organization, which is given in the table. 2

The term KPI was first proposed by Peter Drucker. KPI is an evaluation system that helps organizations determine achievement of strategic and tactical (operational) goals. This tool allows you to control the business activity of employees and the company as a whole in real time [8]. KPIs are used to quickly assess the current value and the state of a particular metric compared to the target value.

To use the KPI system effectively, business executives must comply with the requirements shown in fig. 1.

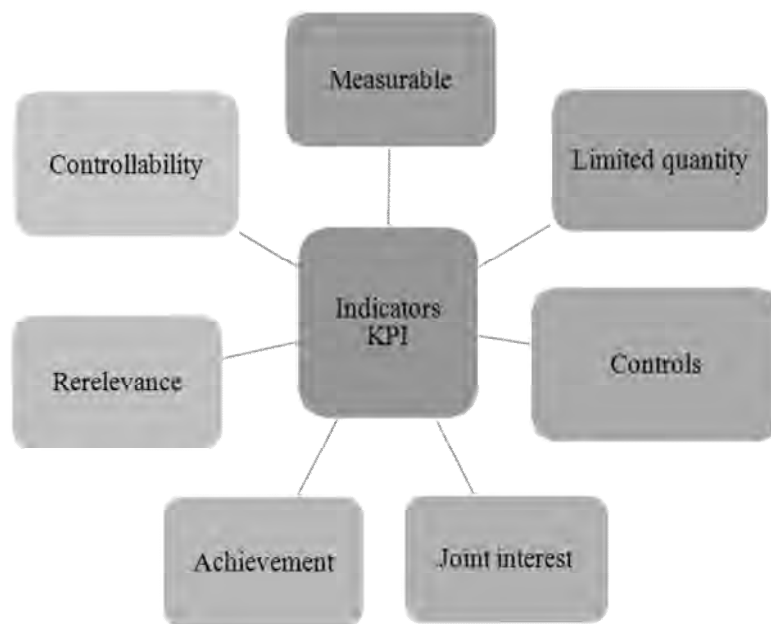


Fig. 1. Requirements for KPI indicators

Proposed on the basis of [8, p. 89; 22, p. 183; 23, p. 164].

The generalization of literary sources on the problem of the effectiveness of KPI use made it possible to propose the following main requirements:

- measurable, that is, the ability to represent the indicator in digital terms;
- controllability – clarity and ease of measurement of indicators in one method;
- the interest of the company’s employees in increasing the motivation and use of KPI;
- achievement and reality for execution, the company should have enough resources to get the desired results;
- relevance – relevance to what measures are measured;
- controls – possibility of impact on indicators.
- limited quantity.

Scientists Kaplan R. and Norton D. recommend to use in the assessment of human resources no more than 20 indicators of KPI [16]. Panov M. suggests using no more than 10-15 KPI indicators, otherwise managers will be overwhelmed by planning [17].

The analysis of key performance indicators of different scholars has allowed to distinguish a number of advantages of using KPI:

- formulation of clear objectives of the enterprise with concrete values;
- operational control of the results of the enterprise and the possibility of influencing them;
- timely response to complex situations;
- timely adjustment of goals, optimization of plans;

- assessment of the state of management at the enterprise;
- identification of successful business directions;
- motivation of employees to achieve results;
- objective assessment of the work of employees.

Developing and implementing a KPI system is a complex process that needs to be taken seriously and planned. Over the years, research and practical use of KPI has created a sequence that requires the implementation of the KPI system. On the basis of a general understanding of the sequence of KPI implementation in the enterprise, we were asked to carry out several steps, which are presented in the table 3.

Table 3

Stages of implementation of the KPI system

Phase number	Phase content
1	2
Phase 1	Initiation of the project team and development of a plan of measures setting the timing of the expected results. From the very beginning of the implementation of the system, the manager of the highest levels should agree on its application in the company. It is recommended to develop KPI in the top-down hierarchy – from the main goal of the enterprise to the objectives of the units and functionals
Phase 2	Formulating the company's strategy and goals, regulating all processes that will accompany the KPI system. On the basis of a defined strategy, a "tree of goals" of the enterprise is being built. The strategy of the company should be divided into specific strategic directions, within which the tasks for separate structural subdivisions are allocated. The optimization and coordination of the organizational structure is being carried out
Phase 3	Directly develop and describe the KPI, set up an information system, identify the units for which a motivational scheme will be formed, and define goals for these divisions. Employee training and staff explanations are what the KPI system needs. If you implement key indicators, only on the instructions of the leadership, then you may encounter misunderstanding and rejection of this system by employees. If the opinion of the employees is not taken into account, and they are simply faced with the fact – to create a strong team and achieve their goals will not work
Phase 4	Identify key performance indicators for units that have decided to use the KPI system
Phase 5	Setting valid values of indicators that will characterize the level of performance of the work performed: <ul style="list-style-type: none"> – the base – the worst value allowed from which the counting of the result begins; – norm – a level that must necessarily be achieved in the light of circumstances (for example, the situation on the market), the characteristics and complexity of work, the capabilities of the employee; – a target is an over-normative level to which one must strive.
Phase 6	Definition of a formula for calculating wages. But the definition of the ratio of "fixed part" and "variable part" in wages. The fixed part, that is, the salary, is unchanged, since the base rate is predetermined and does not depend on the outcome of the performance of functional duties. It is on the variable of the wage component that the KPI will affect, that is, the size of the variable part of the salary of each employee depends on the final result of his work. Thus, the use of the KPI system motivates staff to perform their duties efficiently. The variable part of the monetary remuneration must be at least 30% of the salary of the employee. Along with the formula 1, a standard salary calculation is carried out. $ZH = \frac{F}{Z}, \quad (1)$ where ZP – salary; F – fixed part; Z – variable part (premium).

1	2
	<p>The calculation of the variable part is based on the results of the activity, if the known size of the bonus fund, then the maximum bonuses are determined initially for all KPIs, depending on their weights:</p> $Z_{\max} = P \cdot k, \quad (2)$ <p>where Z_{\max} – maximum premium for KPI; P – fund for employee bonuses; k – weight of the indicator.</p> <p>For calculations it is necessary to establish to what extent the indicators will affect the variable part. The weight of the most important KPI should not be higher than 50 %, but the least important is not less than 5 %. Total metric is 100 %.</p> <p>The prize for each KPI is calculated as a fraction of the maximum bonus, depending on how much the actual value of the given indicator exceeds the normative. The premium on indicators for which the norm has not been reached is simply not charged. Formula 3 is the final one for determining the size of the variable part of the employee's wages.</p> $Z = Z_{\max} \cdot v, \quad (3)$ <p>where v – the effectiveness of the work performed.</p>
Phase 7	Control of CRI. Only with a complete system of control may fairly determine the effectiveness of the work performed. It will have to take into account specific key indicators: for example, the number of calls per day for the sales department, the number of units for the production department. It is necessary to introduce a reporting system, and to automate the metering process.
Phase 8	Analysis of the implemented system of indicators, detection of deviations and their correction. If the system is implemented correctly, then each employee will be able to track their performance and the relationship between them and their wages.

Conclusions

The implementation of the CRI system is a lengthy process that requires attention and clarity of application. The main possibility when using the CRI system is to measure the performance of the company as a whole, its individual units and each employee. For efficient use of the system, it is necessary to use indicators that reflect the impact of each employee's actions on the company's strategy. KPIs are certain criteria (indicators) that help you understand what actions are needed to achieve the ultimate goal and improve performance.

When developing the KPI methodology, it is important to focus on:

- the correctness of the definition of the strategy and objectives;
- explaining the benefits of KPI to employees;
- identification of important indicators and criteria;
- control and coordinate the use of decisive KPIs.

Thus, the KPI tool is useful and has many advantages when it is used. Use this system regardless of the size of the company. The main condition is that the determination of KPI indicators should be consistent with all stages of the implementation of the system, since their use improves the motivation of human resources.

Prospects for further research

The KPI system requires further research, since this issue is always in the process of development. Despite the already established requirements for the indicators and stages of application of the system, it needs to be improved.

Make sure you have researched as many key performance indicators as you can to determine which ones are appropriate for your industry. From there, determine which KPI targets will help you further understand and meet your goals, and then integrate them throughout your department. KPIs should match

your strategy, not just your industry. The prospect of further research in this direction is to develop the tools of the KPI system.

1. Круглов В. В. (2015) Використання ключових показників ефективності (KPI) в управлінні мотивацією персоналу на підприємствах сфери торгівлі, Проблеми і перспективи розвитку підприємництва. № 3(2). С. 30–35. Available at: [http://nbuv.gov.ua/UJRN/piprp_2015_3\(2\)_8](http://nbuv.gov.ua/UJRN/piprp_2015_3(2)_8).
2. Ярышина В. Н. (2012) Использование KPI как направление развития системы грейдов. Теория и практика общественного развития. Краснодар : Изд. дом «ХОПС», 2012. Available at: <https://cyberleninka.ru/article/v/ispolzovanie-kpi-kak-napravlenie-razvitiya-sistemy-greydov>.
3. І. В. Кононенко. (2011) Система мотивації на основі збалансованої системи показників. Восточно-Европейский журнал передовых технологий. № 2(2). С. 28–30. Available at: [http://nbuv.gov.ua/UJRN/Vejpte_2011_2\(2\)_7](http://nbuv.gov.ua/UJRN/Vejpte_2011_2(2)_7).
4. Тітяєв В. В., Шахбазова А. А. (2012) Эффективное управление трудовым потенциалом предприятия на основе внедрения системы ключовых показателей результативности. Научно-технический сборник «Коммунальное хозяйство городов». Выпуск 104. Серия: Экономические науки. С. 177–182. Available at <http://khg.kname.edu.ua/index.php/khg/article/view/560/555>.
5. Ключков А. К. (2010) KPI и мотивация персонала. Полный сборник практических инструментов. М.: Эксмо. 160 с.
6. Гавриш О. А. (2017) Технології управління персоналом.: монографія.-Київ : НТУУ «КПІ імені Ігоря Сікорського».
7. Мескон М., Альберт М., Хедоури Ф. (2000) Основы менеджмента; пер. с англ. М. : Дело, 704 с.
8. Цюцюра С. В., Криворучко О. В., Цюцюра М. І. (2012) Ключові показники ефективності. Принципи розробки ключових показників ефективності для бюджетної сфери. Київ. С. 87–91.
9. Богиня Д. П., Грішнова О. Л. (2002) Основы экономики труда: навч. посіб. – 3-ге вид. К.: Знання-Прес, 387 с.
10. Калініченко А. В. (2013) Мотивація та мотиваційний процес: сутність та поняття. Вісник економіки транспорту і промисловості. № 42, С. 417–420.
11. Шинкаренко В. Г., Криворучко О. Н. (2000) Система мотиваційного моніторингу працівників підприємства. Україна: аспекти праці. № 4. – С. 27–32.
12. М. Мескон, М. Альберт, Ф. Хедоури (1997) Основы менеджмента: пер. с англ.; общ. ред. и вступ. ст. Л. И. Евенко; Акад. нар. хоз. при правительстве РФ. – М.: Дело, 702 с.
13. Колот А. М. (2002) Мотивація персоналу: підруч. / А. М. Колот. – К.: КНЕУ, 345 с.
14. Чобіток В. І. (2015) Формування системи мотивації працівників на промислових підприємствах: теоретичний аспект. Українська інженерно-педагогічна академія, м. Харків.
15. Нікіфорова Л. О. (2019) Економіка підприємства. Дистанційний курс. Available at: <http://vntu.edu.ua/index.php> – 2015.
16. Каплан Р. С., Нортон Д. П. (2003) Сбалансированная система показателей. От стратегии к действию, Нортон Д. П. Пер. с англ. М.: ЗАО Олимп-Бизнес. 304 с.
17. Панов М. М. (2012) Оцінка діяльності і система управління компанією на основі KPI. 255 с.
18. Кузьмін О. Є., Мельник О. Г. (2003) Основы менеджменту: підручник. – К.: Академ-видав, 416 с.
19. Шапиро С. А. (2005) Мотивация и стимулирование персонала. – М.: ГроссМедиа, 224 с.
20. Чобіток В. І., Дибаліна С. В. (2015) Формування системи мотивації працівників на промислових підприємствах: теоретичний аспект. Українська інженерно-педагогічна академія, м. Харків. С. 71–76.
21. Хміль Ф. І. (2006) Управління персоналом: підруч.: Академвидав, 2006. 488 с.
22. Семенчук Т. Б. (2014) Сучасний інструментарій оцінки ефективності стратегії транспортної компанії. Водний транспорт. Вип. 1. – С. 182–188. Available at: http://nbuv.gov.ua/UJRN/Vodt_2014_1_33.
23. Зелінський С. Е. (2013) KPI – на службу державній службі. Актуальні проблеми державного управління: збірник наукових праць ОРІДУ. Вип. 2 (54). – Одеса: ОРІДУ НАДУ, С. 163–167.
24. Кузьмін О. Є. Взаємозв'язок понять «мотивація» та «мотивування» у системі мотивування персоналу підприємств. Бізнес Інформ. № 1. – С. 347–352. Available at: http://nbuv.gov.ua/UJRN/binf_2015_1_58.
25. Чебан А. А. (2015) Эффективная система мотивации труда как элемент повышения конкурентоспособности предприятия // Молодой ученый. № 11 (26). С. 104–108.

1. Kruhlov V. V. & Chepenko M. A. (2015) Vykorystannia kliuchovykh pokaznykiv efektyvnosti (KPI) v upravlinni motyvatsiieiu personalu na pidpriumstvakh sfery torhivli [Usage of the key performance indicators (KPI) to manage personnel's Motivation in the trading companies]. *Problemy i perspektyvy rozvytku pidpriumnytstva [Kiev National University of Trade and Economy]*, 3, 30–35. Retrieved from [http://www.irbis-nbu.gov.ua/cgi-bin/irbis_nbu/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=piprp_2015_3\(2\)__8](http://www.irbis-nbu.gov.ua/cgi-bin/irbis_nbu/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=piprp_2015_3(2)__8)

2. Yaryshyna V. N. (2012) Ispolzovanye KPI kak napravlenye razvytyia systemy hreidov [Usage of KPI as a direction for grande system development]. *Teoriya i praktyka obshchestvennoho razvytyia [Voronezh State University]*. Krasnodar: Yzd. dom «KHORS», 346-348. Retrieved <https://cyberleninka.ru/article/v/ispolzovanie-kpi-kak-napravlenie-razvitiya-sistemy-greydov>.

3. Kononenko I. V & Hetmanova N. B. (2011) Systema motyvatsii na osnovi zbalansovanoi systemy pokaznykiv [motivation system based on Balanced Scorecard (BSC)]. *Vostochno-Evropeyskyi zhurnal peredovykh tekhnolohiy [National Technical University «Kharkiv Polytechnic Institute»]*. 2(2), 28–30. Retrieved from [http://nbuv.gov.ua/UJRN/Vejpte_2011_2\(2\)__7](http://nbuv.gov.ua/UJRN/Vejpte_2011_2(2)__7)

4. Titiaiev V. V. & Shakhbazova A. A. (2012) Efektyvne upravlinnia trudovym potentsialom pidpriumstva na osnovi vprovadzhennia systemy kliuchovykh pokaznykiv rezultatyvnosti [Effective management of labor potential of the enterprise on the basis of the implementation of the system of key performance indicators of results] *Nauchno-tekhnicheskyy sbornyk «Kommunalnoe khoziaistvo horodov». Ekonomichni nauky [Kharkiv National University of Urban Economy]*, 104, 177–182. Retrieved from <http://khg.kname.edu.ua/index.php/khg/article/view/560/555>

5. Klochkov A.K. (2010) KPI i motyvatsiia personala [KPI and staff motivation. A complete collection of practical tools]. Moskva: Eksmo.

6. Havrysh O. A., Dovhan L. A., Kreidych I. M., Semenchenko N. V. (2017) Tekhnolohii upravlinnia personalom [Technology management staff]. Kyiv: *National Technical University of Ukraine «Kyiv Polytechnic Institute. Igor Sikorsky»*. Retrieved from http://ela.kpi.ua/bitstream/123456789/19480/1/tekhnolohii_upravlinnia_personalom.pdf

7. Meskon M., Albert M., Khedoury F. [2000] Osnovy menedzhmenta [The basis of management] M.: Delo, 704.

8. Tsiutsiura S. V., Kryvoruchko O. V., Tsiutsiura M. I. (2012) Kliuchovi pokaznyky efektyvnosti. Pryntsypy rozrobky kliuchovykh pokaznykiv efektyvnosti dlia biudzhetnoi sfery [Key performance indicators. Principles of key performance indicators for budget areas]. *Kyiv National Trade and Economics University, Kiev*, 87-91. Retrieved from http://www.irbis-nbu.gov.ua/cgibin/irbis_nbu/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=Urss_2012_10_17

9. Bohynia D. P, Hrishnova O. L. [2002] Osnovy ekonomiky pratsi: navch. posib [Basics of labor economics]. Kyiv: Znannia-Pres, 3, 387.

10. Kalinichenko A. V. [2013] Motyvatsiia ta motyvatsiinyi protses: sutnist ta poniattia [Motivation and motivational process: the nature and concept]. *Visnyk ekonomiky transportu i promyslovosti*. 42, 417–420. Retrieved from http://www.irbis-nbu.gov.ua/cgi-bin/irbis_nbu/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=Vetp_2013_42_72

11. Shynkarenko V.H. & Kryvoruchko O.N. (2000) Systema motyvatsiinoho monitorynhu pratsivnykiv pidpriumstva [System of motivational monitoring of employees of the enterprise]. *Ukraina: aspekty pratsi*, 4, 27 – 32.

12. Meskon M. (1997) Motyvatsiia personalu [Motivation of staff]. M.: *Delo*, 470.

12. Kolot A.M. (2002) Motyvatsiia personalu: pidruch. [Motivation of staff]. Kyiv: KNEU, 345.

13. Chobitok V.I. & Dybalina S.V. (2015) Formuvannia systemy motyvatsii pratsivnykiv na promyslovykh pidpriumstvakh: teoretychnyi aspect [Mechanism of forming of international currency system: theoretical aspect] *Kharkiv: Ukrainaska inzhenerno-pedahohichna akademiia*. Retrieved from [http://www.irbis-nbu.gov.ua/cgi-bin/irbis_nbu/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=Nvkhdu_en_2016_18\(2\)__4](http://www.irbis-nbu.gov.ua/cgi-bin/irbis_nbu/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=Nvkhdu_en_2016_18(2)__4)

14. Nikiforova L. O. (2015) *Ekonomika pidpriumstva [Business Economics]*. Vinnytsia: National

technical university. Retrieved from <http://vntu.edu.ua/index.php>. 15. Kaplan R. S. & Norton D. P. (2003) Sbalansyrovannaia systema pokazatelei. Ot stratehyy k deistviyu [The Balanced Scorecard: Translating Strategy into Action]. Moskva: *Olymp-Biznes*, 304. 16. Panov M. M. (2012) Otsinka diialnosti i systema upravlinnia kompaniieiu na osnovi KPI [Appraisal and management system of the company on the basis of KPI]. M: Ynfra-Moskva, 255. 17. Kuzmin O. Ye. & Melnyk O. G. (2003) Osnovy menedzhmentu [Fundamentals of Management]. Kyiv: «Akadem-vydav», 416. 18. Shapyro S. A. (2005) Motyvatsyia y stymulyrovanye personala [Motivation and staff incentives]. Moskva: HrossMedya, 224. 19. Chobitok V. I. & Dybalin S. V. (2015) Formuvannia systemy motyvatsii pratsivnykiv na promyslovykh pidpriemstvakh: teoretychnyi aspekt [Formation of the motivation system of employees to industrial enterprises: theoretical aspects]. Kharkiv: *Ukrainska inzhenerno-pedahohichna akademiia*, 71–76. Retrieved from http://nbuv.gov.ua/UJRN/econrig_2015_3_14. 20. Khmil F. I. (2006) Upravlinnia personalom [Human Resources]. Kyiv: Akademvydav, 488. 21. Semenchuk T. B. (2014) Suchasnyi instrumentarii otsinky efektyvnosti stratehii transportnoi kompanii [Modern tool estimation of efficiency strategy a transport company] *Vodnyi transport*, 1, 182–188. Retrieved from http://nbuv.gov.ua/UJRN/Vodt_2014_1_33. 22. Zelinskyi S. E. (2013) KPI — na sluzhbu derzhavnii sluzhbi. Aktualni problemy derzhavnoho upravlinnia: zbirnyk naukovykh prats [Actual problems of public administration: a collection of scientific works]. Odesa: ORIDU NADU, 2(54), 163-167. 23. Kuzmin O. Ye. & Bodaretska O. M. (2015) Vzaiemozviazok poniat «motyvatsiia» ta «motyvuvannia» u systemi motyvuvannia personalu pidpriemstv [Relationship Between the Concepts of «Motivation» and «Motivating» in the System of Motivating the Staff of Enterprises]. Kharkiv: *Biznes Inform*, 1, 347–352. Retrieved from http://nbuv.gov.ua/UJRN/binf_2015_1_58. 24. Cheban A.A. (2015) Efektyvna systema motyvatsii pratsi yak element pidvyschennia konkurentospromozhnosti pidpriemstva [An effective system of motivation as an element of increasing enterprise competitiveness] Kyiv National Linguistic University, «Molodyi vchenyi», 11 (26), 104–108. Retrieved from http://nbuv.gov.ua/UJRN/molv_2015_11_25.