

**V.M.Marchenko**, PhD of Economic Sciences, Professor, Department of Economics and Business, National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»

**V.A.Hondoka**, student, Department of Economics and Business, Department of Management and Marketing, National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»

## **THEORETICAL BASIS OF PERSONNEL POLICY OF MODERN ENTERPRISES**

*In the article the theoretical base of human resources policy of the company, considered the essence and meaning of human resources policy organization. The essence of the concept of "human resources management" is justified as activities aimed at the most efficient use of labor resources to achieve the objectives of enterprise and personal goals of employees. The basic concepts and types of modern human resources policy in the management of staff. Defined purpose, object and principles of the personnel policy of the modern enterprise. Today, many domestic enterprises, unfortunately, ignore all personnel management. Indicators for assessing organizational effectiveness of personnel management company include: employee turnover ratio of administrative staff and other categories of workers, the reliability of the personnel, the level of labor discipline, employee satisfaction, the number of conflicts, complaints and accidents.*

**Keywords:** staff, business, human resource management, human resources, personnel policy, personnel service.

### **Problem definition and its relation to important scientific and practical tasks.**

Becoming independent Ukraine faced difficult and strategically important tasks to provide complete reorganization in different areas of social and political life. The question of reforming and modernizing the country is one of today's strategic priorities of Ukrainian government which has been gradually implementing the reform strategy since 2010. Thus, one of the most important components of modern reforms is HR aimed at efficient usage of human capital and society's staff potential. It's important to outline that the peculiarity of modern Ukrainian state personnel policy is that the state and an individual are partners in professional activities where the defining principle is to achieve coincidence of wants between the state and an individual, to meet individual and state interests, to promote creative self-realization of an individual. Consequently, there is a need to define both scientifically and theoretically the conceptual basis of Ukrainian staff policy which will allow to efficiently perform modernization actions of different areas of social and political life of the state.

**The analysis of recent studies and publications, which initiated the solution of the given problem and upon which the author relies; accentuation on previously unsolved aspects of the general problem, which the given article is dedicated to.** A profound analysis of personnel

policy in general and personnel processes and technologies in particular were analyzed by Vdovychenko R. [1], Hrytsai A. [2], Hryvniak A. [3], Strehova S. [4], Mazur V. [5] and other scientists. However, dynamic processes which take place in different areas Ukraine's living need some corrections of existing priorities of such policy and provide its anti-crisis focus.

**Setting objectives.** The aim of the research is define the essence and theoretical basis of modern personnel policy in Ukraine, its influence on enterprise, staff and economy

**Presentation of the main research material with complete justification of the obtained results.** In today's conditions of market economy within the diversity of problems connected with normal and efficient enterprises' development provision one of the most important problems is HR management. The role of HR in functioning of economy system has changed because of the creation of enterprises of different types of ownership, competition, global structural and technological changes in production, computerization. HR management is more and more considered to be one of most important areas of enterprises' living which can raise it's efficiency and functioning productivity. To characterize it, we can say that HR management is the specific approach to control people within the enterprise aimed at achieving specific competitive advantages by key

placement of qualified staff. It proves that the biggest development will be achieved by such enterprises which rely on HR and its management. The art of management based on finding such approaches and methods that can provide the needed course of actions within the enterprise and encourage the staff for better performance. In such conditions of managing HR the key element of management which increases efficiency is definition of aims, functions, tasks and principles of HR management.

The essence of the notion "HR management" can be defined as any activity which is aimed at an efficient usage of labour resources to achieve enterprises' aims as well as individual workers' aims. The first ones are traditionally associated with the provision of enterprise efficiency. However, more often efficiency is viewed not only in terms of cost effectiveness, quality, productivity, innovation, profit, but also connected with such notions as work satisfaction, high self-esteem, motivation. It should be mentioned that an individual is not only the key element of the productivity process but also the main strategic resource of company in competing with other enterprises. No matter what great ideas, innovative technologies and favourable environment there are, without professional staff the highly efficient productivity can't be achieved. That's why there is a new view being formed to consider work force as one of the decisive resources of any economy and human capital. People are now called HR and its value as a success marker is constantly growing. Consequently an HR management system has been formed which is replacing the old system of personnel management and is conscious of the need to finance the development of such system, explains commercial importance of costs connected with involving qualified staff, its constant training and support, and even creating conditions for personal self-development. So, personnel management is a system of interdependent economic, organizational and social actions aimed at creating conditions for normal functioning, development and efficient use of work force on the enterprise level [1].

The aim of personnel police of the enterprise is to provide balance between economic and social efficiency of staff resources usage, by the due date provide company's subdivisions with qualified staff, to create conditions for efficient usage and

development of company's staff potential, to satisfy economic, social expectations and interests of workers. Personnel policy is aimed at strengthening unified corporate culture, effective motivation and professional development of enterprise staff.

The object of personnel policy is enterprise staff whereas the subject of it, is personnel management system which consists of all levels managers and HR department [2, c. 149].

Efficient staff management is based on the following principles: goal focus (absence of clearly stated goals decreases staff efficiency); consistency (all actions towards staff should have conceptual unity); scientific character (subjects of management should use scientifically proved methods in staff managing process); optimality (in the process of managing personnel, achievement of goal whatever the cost isn't recommended); consistency of management process (methods and procedures chosen as well as rules and regulations within the enterprise should not contradict, they should be applied to everyone and unchangeable if there is no compelling reasons for such changes); balance of powers and responsibility (every worker should be responsible only for those processes and operations which are his remit); integration of individual and collective interests into enterprise interests. It's achieved the following way, an organization doesn't forget about individual's interests and need and does it best to avoid conflict of interests [3, c. 11].

On the basis of enterprises' personnel policy analysis done previously scientists classified it as follows: passive, reactive, preventive and active types of policy.

Passive personnel policy is characterized by emergency response actions to conflict situations when an enterprise management tries to eliminate at all costs the consequences of such situations, often without understanding of their reasons.

Reactive policy is characterized by controlling negative symptoms in staff management from the side of enterprise management, reason of the negative situation and development of the crisis including origin of conflict situations, absence of enough number of skilled workers for problem solution, lack of motivation to highly productive performance.

In terms of preventive policy enterprise HR department has not only personnel diagnostic tools but also can forecast mid-term staff situation.

Enterprises development programs forecast short-term and mid-term need for personnel as well as strategic tasks for personnel development.

Speaking of active personnel policy management has got not only forecasts but also tools to influence the situation, while HR department develops anti-crisis staff programs, monitors the situation, corrects programs realization according to external and internal situation.

There are two types of active personnel policy: rational and adventurous. In terms of rational personnel policy the management has qualitative characteristics and valid forecast of situation development as well as tools to influence it. Adventurous personnel policy has no program of valid development of the crisis situation but the management influences it with all methods available.

Main components of enterprise personnel policy in today's conditions are the following: hiring policy, training policy, salary policy, staff procedure organization policy, social relations policy.

Enterprise personnel policy should be designed for a long term and have a clear focus on staff resources development, staff training, have certain perspective of economic, political and cultural development of the society [4, c. 67].

Currently enterprises are in conditions of low production stability and in a deep economic crisis and build their personnel policy the following way: fire personnel expecting when there is a need they will hire new ones; no one is fired, but the management doesn't prevent voluntary resignation (even provoking workers to resign paying a low salary) expecting that with the course of time the quality will be balanced according the demand (hands-off approach policy); protect the most skilled and mobile part of personnel (so called "gold reserves" of work force); major part of personnel is not fired and involve expecting "better times" [5, c. 207].

Special attention and responsibility is needed from a manager of the enterprise organization of labour relations in terms of working out rules and assessment skills of performance, formation responsibility from the side of workers, analysis and regulation group and interpersonal relations, management of conflicts and stresses, conducting social and psychological diagnosis, forming corporate culture, creating safe labour conditions.

Today a lot of domestic enterprises, unfortunately, ignore the system of personnel management or in other cases, assess personnel management efficiency with the help of specially designed criteria.

First of all, efficiency of personnel management system efficiency functioning should be assessed by its contribution in achievement organization goals. Assessment criteria of enterprise personnel management efficiency include staff turnover, balance between management and category of workers, personnel reliability, job equability, labour discipline, job satisfaction, number of conflicts, complaints, accidents etc.

Several European countries have centres for assessing management personnel. Such centers giving special tests and exercises identify workers potential skills. However, such centers do not guarantee absence of mistakes or drawbacks [1].

### **Conclusions of the presented study and prospects for the further research in this sphere.**

Summing up all the above mentioned we can state that researches of the theoretical bases of Ukrainian personnel policy gave the possibility to define that personnel policy is the most important component in saving and strengthening state unity, social and political stability of the society and a strategic component of citizens' living regulation. Important component of personnel policy is creation of balanced system of managing people which should provide optimal labour resources usage of all the country.

Today's personnel policy should be scientifically proved, historically specific and consider current needs of the society for staff as well as to be planned and long term. It should base on the knowledge about society, management, to be carried out within legal framework, to be democratic, consider beliefs and ideology considerations, conditions of the state and its perspectives, possibilities of carrying out the goals set. Aims of personnel policy should be chosen considering personal interests, peculiarities of demographic, cultural and historical development of the state etc. Moreover, to our mind the developers of personnel policy and its strategies should represent participants with interests and beliefs that give different views to the problem from the point of social and economic relations. It will allow not only to do it targeted but

also increase the interest from different subjects in its realization.

## References

1. Vdovychenko, R.P. (2012), "Features moder management personnel", *Efektyvna ekonomika*, [Online], vol.2, available at: [http://nbuv.gov.ua/UJRN/efek\\_2012\\_2\\_18](http://nbuv.gov.ua/UJRN/efek_2012_2_18) (Accessed 18 Oct 2016).
2. Hrytsaj, A.M (2014), "Theoretical and methodological principles of forming personnel policy of the company ", *Scientific Bulletin of Poltava University of Economics and Trade*, vol. 1, pp.148-155.
3. Hryvna, A.V. (2013), "Problems of personnel management in modern enterprises", *Visnyk Journal of National University "Lviv Polytechnic"*, vol. 778, pp.10–17.
4. Strehova, S.V. (2012), "Personnel policy: leverage efficiency mechanisms and instruments", *Economics and Enterprise Management*, vol.3–4, pp.66–70.
5. Mazur, V.S. (2011), "Modern enterprise human resources strategy", *Scientific Bulletin of Poltava University of Economics and Trade*, vol.6 (51), pp.206–210.

**УДК 631.151.2:004.9**

**E.V. Kryvda**, *PhD economy, Associate Professor at The Economics and Business Department,*  
**A.V. Kriuchkovska**, *student of the Department of Energy Processes and Systems Automation Design of the*  
*HPF, National technical university of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»*

### **THE USE OF INFORMATION TECHNOLOGY IN AGRICULTURE**

*In order to stimulate the development of agro-industrial complex of Ukraine, following the example of one of the most developed countries, it is necessary to undertake the intensification of companies within the industry. So the article contains possible variants of this process. It should be taken into account that there is not only the high agricultural potential of Ukraine, but also the potential of information technology sphere (Ukraine is among the top 11 best countries in the IT professionals' qualification). Therefore, the use of information technology in the agricultural sector, described in the article, will allow to kill two birds with one stone: to increase productivity in the field of agro-industrial sector and increase profits for Ukrainian IT companies by job creating in this and thus supporting the domestic producer of information technologies products. Assessing the condition of the agro-industrial sector of Ukraine, it can be concluded that the level of development of the industry is almost like the level of 70-80 years of the 20th century. Given this fact and the global demand for food growing, it can be argued that the problem of development of the industry is quite important not only in the context of the country, but also in the context of the globe. This article describes one of the most promising variants for the development of agriculture sector – informatization. Also the impact of specific information technology on various aspects that enhance productivity and optimize resource utilization was also analyzed. The efficiency of the use of IT in agriculture, from different angles, is also described as well as examples of world experience.*

**Keywords:** information technologies, intensive development, the agro-industrial sector, agriculture.

**Problem definition and its relation to important scientific and practical tasks.** The problem of intensive development of the agro-industrial sector is relevant and urgent in terms of limited availability of suitable land for agriculture and growth in demand for food products.

**The analysis of recent studies and publications.** The stated problem was in focus of a number of Ukrainian and foreign scholars, such as

Ya.Boyko, N.T. Tverezovskaya, A.V. Nelepov, B.A.Runov and others.

**The objective** of this paper is to identify the most beneficial use of information technology in the agricultural sector.

**Presentation of the main research material with complete justification of the obtained results.** With the increase in human population on the planet, the need to provide the population with a

high-quality and natural food is constantly growing. Considering the limited amount of natural resources - in this case the resources of land suitable for agriculture, we can conclude that under such conditions it is extremely problematic to extensively increase productivity. Therefore, it is expedient to search for possible variants of its intensive development. We believe that introduction of information technologies in agriculture is one of the ways of the mentioned intensification [2].

Information technologies are a set of means, methods, and techniques for applying the computer technology in terms of collection, retrieval, processing, transmission and use of information. At the same time, information technologies are not limited only to computer technologies, but broadly cover all the areas and resources necessary for information management. Taking into account the current trends, the effective enterprise management becomes an extremely difficult task if not using information technologies. Thus, the development of the IT part of the enterprise is very often the key to competitiveness in the market [8].

In this case, the enterprises of the agro-industrial sector are no exception. Information technology is the tool for the effective work with information. Within the framework of an agro-industrial sector, the use of information technologies would allow a more efficient collection of necessary data for their subsequent processing and use. In many countries, thanks to the "technological revolution", there has been a significant simplification of the farming process and even a growth of productivity in this area. For example, it is known that the soil within the territory of the USA is mostly infertile. Nevertheless, thanks to a complex development scheme, the country's agricultural sector is experiencing a slow but steady development. 80% of US farmers use to some extent information technologies in their activities. In Japan and South Korea farmers use the systems of controlling the microclimate in greenhouses as well as remote monitoring systems, which allow the farmers to control temperature, humidity and other indicators at a distance. In addition to the increase in soil productivity, they have managed to considerably reduce the manual labor. According to the Internet sources, in Germany there is a farmer who introduced IT into agriculture and thus achieved an increase in harvests by 30%. At the same time,

the cost of mineral fertilizers decreased by 30%, and the cost of inhibitors – by 50% [6; 8].

There are many options allowing to introduce IT into the agricultural sector. A prerequisite for this is the availability of modern agricultural machinery. This machinery in theory can be controlled by means of an on-board computer, which will reduce the use of human resources. A variety of types of sensors available in the market of electronic equipment will allow one to collect the maximum amount of information about the microclimate of an area. This can be the information about the soil temperature, the presence of certain chemicals in it, their quantity, the acid-alkaline state of the soil, its humidity as well as air humidity, the amount of light, wind speed and direction, etc. The collection of such information as well as accumulation of processing statistics will enable the farmers to perform the most effective analysis in order to minimize production costs and maximize the harvest yield. A good solution to this problem at the moment is the use of Wireless Sensor Networks, i.e. the networks of multiple sensors. Each sensor (node) in such a network is, in fact, a switch, and a network of such nodes can cover significant areas transmitting information over long distances (Bluetooth technology, for example, allows combining no more than 7 nodes). In this case, the technology used in such networks (the most popular one at the moment being the ZigBee) allows permits transferring the data over long distances at low power consumption as compared with WI-FI. Besides, such networks are able not only to transmit the information read from sensors, but also to send commands to the executive devices within the network. Wireless sensor networks are reliable: in the event of failure of one of the nodes, information is transmitted with the help of neighboring ones. The technology of these networks is noted for their resistance to electromagnetic interference. Identification of soil moisture and the simultaneous use of automatic irrigation [5; 7] can serve as an example of the use of WSN.

To minimize the use of human resources, seeding machines can be used, experimental samples of which were shown back in 1982 at an international exhibition in Munich [6].

To collect information on the yield of the soil, agricultural machinery can be equipped with electronic devices that allow one to simultaneously

determine the amount of crop at the field coordinates and record the data into the database. Such statistics would more accurately define the amount of fertilizers necessary in subsequent sowing [4].

The English company KRM at one time suggested photographing the fields from above in infrared rays using an airplane or satellite to determine the content of potassium, phosphorus and nitrogen in the soil. A much more budgetary option can be the use of the drones and quadrocopters controlled remotely by a computer or mobile devices [6; 8].

Recently, in the developed countries, the integration of agricultural machinery with GPS navigation systems has been widely used. This tendency is popular due to the fact that the use of GPS equipment allows saving money. In such a way in Europe the farmers save up to 50-60 Euros per hectare. GPS systems of vehicles monitoring allow one to monitor the operation of equipment in real time. In fact, such systems provide information on the history of movement of agricultural machinery, its fuel consumption, and toiled area. In addition, in such systems it is possible to use an autopilot being programed in such a way that the fuel consumption is minimal. According to some studies, due to navigation systems, the cost of working time is reduced by an average of 7% [3].

Such a technology as a geo-information system is a convenient tool for monitoring crops and farming results. GIS makes it possible to form and edit digital maps of the territory for its later analysis. The possibility of creating thematic maps allows one to estimate the specific territory from different points of view and in different ways. Thus, the user can make maps according to the type of soil, level of surface height; he/she can view the dynamics of changes on the territory, draw up a series of graphs, can plan and specify the structure of sown areas [2].

#### **Conclusions of the presented study and prospects for the further research in this sphere.**

Thus, the introduction of information technologies in the agro-industrial complex provides an effective management of the crops productivity with a detailed account of the field characteristics. This, in fact, is the optimal control of agriculture, literally on every square meter. Besides, it is possible to receive the maximum profit and minimize expenses of economic and natural resources.

Application of innovative solutions in the agroindustrial complex of Ukraine would produce an additional economic effect as well as reduce the influence of weather and price fluctuations in the market. Informatization is a path of intensive development. And, as the world practice shows, the countries leading in economic development achieved it due to intensification, using the achievements of the 21st century, i.e. information technologies.

## References

1. Runov B. (2002), Information technologies and “precision agriculture” management, Agrarnaja reforma. Jekonomika i pravo, vol. 2, pp. 25–27.
2. Zubets M.V. (2006) “The agriculture science of XXI century”, Visnik agrarnoi nauki, vol 3–4, p. 208.
3. Lev T.D., Tishhenko O.G., Piskun V.M., Tesljuk L.V. (2004), “The use of modern information technology for eco-agrochemical estimation of soil farmland”, Zbirka dopovidej na Mizhnarodnij ekonomichnij konferentsii “40 rokov: vid agrohimichnoi sluzhbi do sluzhbi ohoroni rodjuchosti gruntiv” [Conference Proceedings of the International Economic Conference “40 years: from agronomic services to soil productivity defence services”], pp. 191–201.
4. Tarariko Ju.O., Soroka Ju.V. (2004), “Stationary agronomic research as an information base for monitoring, forecasting, modeling and development of agro-ecosystems”, Visnik agrarnoi nauki, vol .5, pp. 18–23.
5. AgroPortal (2015-2016), “Tochnoe zemledelie, posevnaja i jeffektivnoe ispol'zovanie resursov”, available at: <http://agroportal.ua/views/blogs/tochnoe-zemledelie-posevnaya-i-jeffektivnoe-ispolzovanie-resursov/>
6. Federal'nyj centr sel'skhozjajstvennogo konsultirovanija i perepodgotovki kadrov agropromyshlennogo kompleksa (2015), “Tochnoe zemledelie – innovacija v sisteme resursosbergajushhego zemledelija”, available at: <http://mcx-consult.ru/d/77622/d/tochnoe-zemledelie.pdf>
7. Sajt Instituta tochnoj mehaniki i vychislitel'noj tehniky im. S. A. Lebedeva Rossijskoj akademii nauk (2016), “Preimushhestva primenenija sensornyh setej”, available at: [http://www.ipmce.ru/img/release/is\\_sensor.pdf](http://www.ipmce.ru/img/release/is_sensor.pdf)
8. HubPages (2016), “The role of Information Technology in Agriculture”, available at: <http://hubpages.com/food/The-Role-of-Information-Technology-in-Agriculture>