

Human Resources Policy of the Enterprise in the Conditions of Digitalization of the Economy: Change of Content and Prospects of Formation

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Abstract. Sustainable development of the enterprise in the conditions of continuous development of economy and social changes is based on the effective personnel policy as the personnel is the most valuable resource of the organization. The purpose of the work was to identify problems and determine the prospects of formation of personnel policy of the enterprise in the conditions of digitalization of the economy. The research is based on the use of general research methods, comparative and structural-logical analysis, empirical generalization, tabular and graphical methods of presentation of statistical and computational data. The work defines the elements of personnel policy and reveals the main functional directions of personnel policy development in the conditions of digitalization of the economy. The stages of formation of personnel policy at the enterprise are considered, as well as the directions of transformation of personnel policy in the conditions of digitalization of economy are defined. It is determined that the use of electronic document flow is a direction of increasing the efficiency of the functioning of personnel policy of the enterprise. It is concluded that the use of personnel electronic document management system is based on the use of telecommunication channels. The advantages of electronic information exchange application are revealed, and also stimulating and restraining factors of its development are identified. The attention is focused on the directions of development of personnel electronic turnover in the conditions of digital transformation. It is argued that the use of information technologies creates new tools in the work with the personnel of the enterprise, ensuring the growth of the efficiency of enterprises. As a result, it was concluded that the transformation of personnel policy of the enterprise is a necessary process in the conditions of digitalization. Information technologies create opportunities for using new tools of work with the personnel of the enterprise. Creation of info-communication platform, including technological, legal, financial components, knowledge and technology management system, will ensure the growth of efficiency of enterprises' activity

1. Introduction

Information and communication technologies have a significant impact on the development of all sectors of the economy, public administration, national defense, state security, law enforcement and become part of their management systems. In the conditions of continuous development of economy and social changes, the personnel policy of the enterprise is important for the activity of the enterprise

as the personnel is the most significant resource of the organization, its formation and preservation directly influences the results of activity of the enterprise. The personnel policy of the organization is formed in accordance with the general strategy of the enterprise, the question of formation of personnel policy of the enterprise has mainly a tactical nature.

The purpose of the study was to identify problems and determine the prospects of formation of personnel policy of the enterprise in the conditions of digitalization of the economy. To achieve this goal it was necessary to solve the following problems:

1) to clarify the content of the personnel policy of the enterprise, its elements and content in the conditions of digitalization of the economy;

2) to carry out the analysis of the use of Internet resources by Russian enterprises and to study the practice of application of the latest technologies of processing of personnel information and operative work with personnel by domestic enterprises,

3) to justify the main directions of improving the personnel policy of the enterprise and electronic workflows in the conditions of digitalization of the economy.

In process of formation the personnel policy it is necessary to take into account the impact of factors both external and internal environment in which the company operates. One of the essential factors influencing the content of the personnel policy, its tools and peculiarities of implementation at present are the processes of digitalization of the economy.

Russia's strategic goal at this stage of economic development is to become a member of the global information society as a full-fledged participant while maintaining political independence, national identity and cultural traditions. The solution of this problem requires the development of a well thought-out, purposeful state policy in the field of information society development [1-3]. An important step in the development of the information society in the Russian Federation was the adoption of such important documents as the Strategy for Innovative Development of the Russian Federation for the period up to 2020, the Strategy for the Development of Information Technologies in the Russian Federation for 2014-2020 and for the period up to 2025, the Strategy for the Development of the Information Society (2008), the Strategy for Scientific and Technological Development of the Russian Federation, the main activities of the Government of the Russian Federation for the period up to 2018, the Roadmap The Government of the Russian Federation adopted the State Programme "Information Society (2011-2020)" in order to create an integrated and effective system of information society support. These strategic documents have defined the directions of the information society development in Russia, initiated the intensive use of information and communication technologies by public authorities of the Russian Federation, business and citizens [17-20].

2. Research methods

In the course of the study, general scientific research methods, comparative and structural-logical analysis, empirical generalization, tabular and graphical methods of presentation of statistical and computational data were used.

3. Research results

The term "human resources policy" in relation to the financial and economic activities of the enterprise can be understood in a broad and narrow sense. In a broad sense, human resources policy is a system of rules and norms on the use of human resources in accordance with the long-term strategy of the organization, which are consciously formulated and fixed in a certain way at the level of the organization [4-9]. In a narrow sense, personnel policy is a set of rules and norms, goals and perceptions that determine the direction and content of work with personnel [2-9]. Theoretical approaches to enterprise policy were studied by Russian and foreign scientists. Among the Russian authors who have made a significant contribution to the development of the problems under consideration are: Bazarov T.Y., Breev B.D., Bychin V.B., Eremin B.L., Zubkova A.F., Ismailov L.E., Kibanov A.Y., Lipatov B.C., Maslov E.V., Chetvernina T.Y, Kolosova R.P., Nikiforova A.A., Odegov

Y.T., Popov R.A., Rakitsky B.V., Slesinger G.E., Sorokina N.P., Stolyarova V.A. and others. Foreign authors on the above issues: Gerber P., Porter M., Robinson S., etc.

Elements of the personnel policy are

- Employee development, retraining, professional development, promotion, certification and assessment of working conditions;
- providing the organization with qualified personnel, analysis of electronic workflows, release and selection of suitable personnel, planning the need for personnel;
- improvement of labor organization, labor safety, motivation of employees and labor stimulation [9-11].

The main functional directions of the personnel policy are as follows: current personnel work; personnel management; personnel planning; measures for personnel development and professional development; measures for solving social problems; development of motivation and remuneration system [9-11].

Publications and scientific works of such authors as T.Yu. Bazarov, E.B. Voronova, V.N. Chalova, A.B. Kayasheva, V. Petrova, G.V. Shchekina, etc. are devoted to the issues of formation of personnel policy at the Russian enterprises, consideration of methodological base, formation of methodical approaches to its formation.

Formation of personnel policy can be considered as a process consisting of several stages (Fig. 1), as the main can be singled out:

- Analysis of the strategy and tactics of the company's activity, at this stage, the assessment of all available labor resources and the need for personnel is also carried out;
- development of general principles of personnel policy, at the same time the priorities of the enterprise on the issues of provision and management of personnel are revealed;
- Formation of the system of current personnel management, at this stage, the question of which employees should be sent for professional development, which - for retraining, also developed measures for adaptation and career guidance of personnel;
- collection and processing of personnel information, the content of this stage consists in the creation and use of relevant information for employees of the organization, which is an important process in the formation of personnel policy.
- Evaluation of the results of activity, at this stage there is an analysis of personnel policy and the question on how much the personnel policy of the enterprise is adequate to the strategy of the organization is solved. The issues related to the problems in personnel work and assessment of personnel potential are also solved [9-22].

Based on the analysis of statistical data [19, 23], we can conclude that info-communication technologies not only actively enter all spheres of social and economic sphere of society, but also have a significant impact on the development of virtually all sectors of the economy. The absolute majority of Russian enterprises use the Internet in their current activities, in the period of 2014-2017 on average 80.6% of the surveyed organizations used broadband Internet in their work, during the study period the share of organizations that have their own websites increased from 39.8% to 44% (Table 1). The practice of using cloud technologies is actively spreading among Russian enterprises.

Table 1. Use of information and communications technology in the organizations

Technology name	2014 г	2015	2016	2017
Internet	87,1	85,3	85,7	86,1
Broadband Internet	81,4	78,9	80,5	81,6
Servers	-	53,8	56,7	55,5
Websites	39,8	41,4	43,4	44,0
Cloud Technology	13,8	18,4	20,5	22,6

The activity of organizations in the use of Internet resources significantly differs depending on the sphere of activity of enterprises, the analysis of statistical information [19, 23] has led to the conclusion that the most active users of the Internet in 2016-2017 were the enterprises of high-tech industries and service sectors, including organizations working in the field of mining, raw materials processing, wholesale and retail trade.

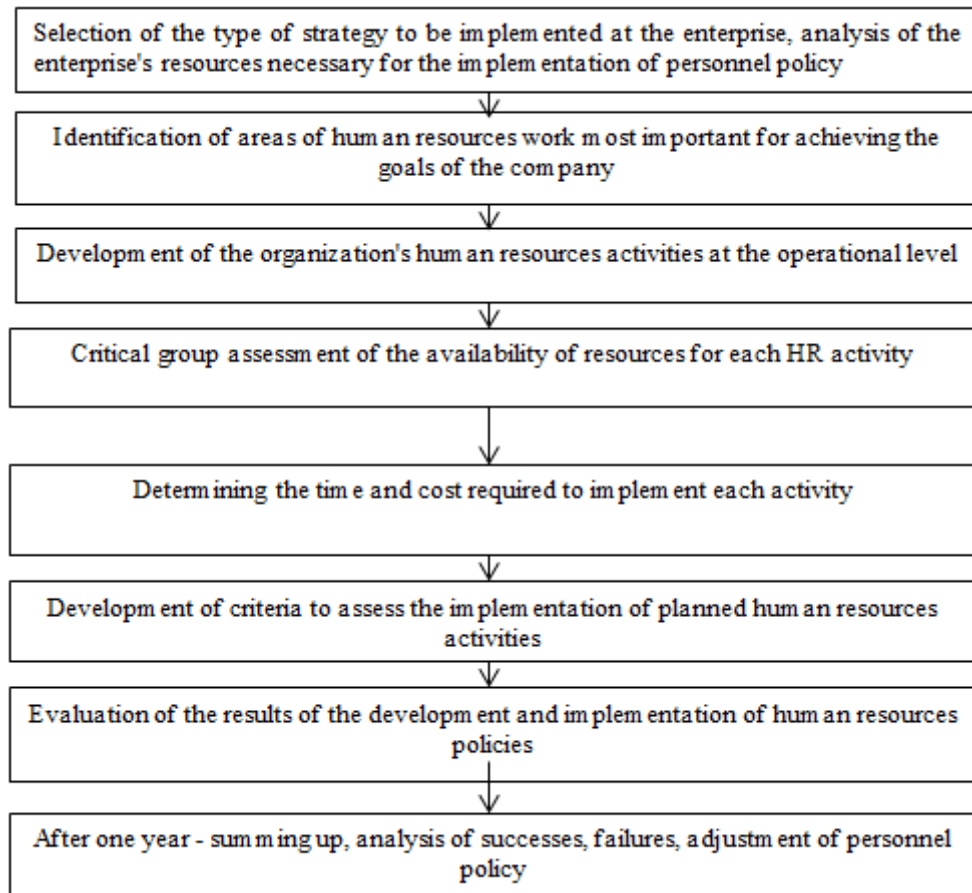


Figure 1. Stages of formation of personnel policy for an enterprise

Enterprises of the Russian business sector in 2016-2017 continued to actively use various software tools for doing business [19,23]. To a greater extent, business entities were focused on the use in their current activities of software tools for financial settlements in electronic form (84.2% of the total number of surveyed organizations), the solution of organizational, managerial and economic problems in current activities (81.5%), providing access to data through global information networks (65.5%) (Table 2).

When working with the company's personnel, Internet resources were also used, for example, in 2017. 39.7% of all enterprises used Internet sources in their activities to carry out professional training of personnel, almost a third (35.8%) of surveyed business entities used Internet resources in hiring personnel [19,23].

In our opinion, the transformation of personnel policy in the context of the digitalization of the economy is carried out in the following main directions: 1) the requirements to the personnel, including the qualification of the personnel, are changing; 2) there is a need for continuous improvement of the personnel qualification; 3) the nature of the use of the tools of operational

personnel management is changing; 4) more advanced systems of personnel administration are being applied. Let's consider these directions in more detail.

Table 2. Use of software tools in organizations for business.

Areas of activity of organizations	Financial calculations in electronic form		Solution of organizational, managerial and economic tasks		Providing access to databases through global information networks	
	2017	2016	2017	2016	2017	2016
Business sector	53.7	54.7	52.7	53.3	27.5	28.8
Mining and quarrying	55.6	23.3	58.7	21.2	24.0	9.0
Manufacturing industry	69.3	70.0	66.4	64.8	28.9	31.4
Energy supply	63.3	59.4	62.6	56.5	31.4	31.6
Water supply, water disposal, waste collection and disposal	52.3	-	44.3	-	24.9	-
Construction	57.1	62.5	51.7	57.3	22.4	26.8
Wholesale and retail trade	52.4	57.4	53.7	60.0	33.7	37.9
Transportation and storage	55.3	57.4	61.4	53.1	26.1	32.0
Activities of hotels and catering companies	58.0	51.6	50.9	56.3	34.1	24.2
Telecommunications	64.0	62.1	72.1	67.6	44.0	37.6
Information technology industry	54.8	-	62.3	-	33.5	-
Real estate transactions	35.7	46.7	32.8	43.4	15.3	22.8
Professional, scientific and technical activities	56.1	-	52.0	-	24.4	-

Under the influence of the processes of digitalization, the mechanism of information collection and transfer changes significantly, knowledge becomes outdated quickly, there is a need to form new skills, the ability to learn determines career achievements, there are constantly new technologies that change the approach to learning, resulting in the need to update educational standards and search for the optimal combination of traditional and innovative methods of learning. In the context of digitalization, it is important for employees to possess not only professional skills, which should be tailored to the specifics of the job content in a particular profession, but also pre-professional skills, including cognitive, socio-emotional and digital skills (Table 3).

Table 3. Pre-professional skills of the staff required in the conditions of digitalization*.

Name of the skill	Content of the skill
The ability to think systematically	Systematize the information, define the content of the system elements, their internal interrelations
The ability to use inter-sectoral communication skills	Understand production technology, know process management
Ability to implement projects	Skill to separate processes into separate elements and be able to design them step-by-step
Ability to be client-oriented	To know the consumer and be able to work to meet their needs
Foreign language skills	To master foreign languages at a high level
Ability to work in the uncertainty mode and quick change of the set point	Be able to work in the mode of clarification and quick change of tasks, be able to allocate resources and manage their time

*Note - compiled on the basis of the source [18].

In the near future, we should expect an increase in the demand for highly qualified professionals who know not only production, but also its economic and digital components. Fast learning and responsiveness to new information is a must for employees. The presence of pre-professional skills will have a significant impact on the level of competitiveness of specialists in the labor market, both external and internal.

The need for pre-professional skills requires management to develop adaptability and learning skills, and therefore training and development should be an integral part of a company's human resources policy in a digital environment. According to specialists [3-16], it is important to use not only external resources, but also the system of internal corporate training.

Changes in the external and internal labor markets will also be associated with the emergence of new professions and specialties in demand in the digitalization, for example, according to the developers of the Atlas of new professions [18], in the financial sector will be in demand specialists in the field of intellectual property evaluation, design of individual financial trajectory, development of personal pension plans, management of crowd-crafting and crowdfunding operations. In such a segment of the labor market as management personnel, time brokers, foresightmen, managers of corporate venture capital funds portfolio, personal brand managers, moderators of user communities, etc. will be in demand from companies.

One of the innovative methods of collection, systematization and use of personnel management information is cloud technologies. Over the period 2014-2017, the share of the Russian business sector companies using cloud technologies almost doubled in 2014. 13.8% used these technologies in their activities, in 2017 - 22.6% (Table 3)

Table 4. Use of cloud services, % of the total number of business sector organizations.

Activities	2014	2015	2016	2017
Business sector	13,8	18,4	20,5	22,6
Mining and quarrying	11,3	16,4	17,7	17,8
Manufacturing industry	13,4	20,0	23,2	25,7
Energy supply	9,6	14,6	16,2	17,2
Water supply, water disposal, waste collection and disposal	14,8	19,9	21,6	22,1
Construction	19,2	22,5	25,7	27,0
Wholesale and retail trade	19,0	25,8	27,5	28,7
Transportation and storage	12,0	15,8	16,5	17,6
Activities of hotels and catering companies	23,5	31,3	31,2	38,7
Telecommunications	11,3	15,5	16,9	15,4

Cloud computing allows the company to provide convenient, fast and easy work with different operating systems based on applied solutions on different client devices [26-28]. Cloud technologies are distributed data processing technologies in which computer resources and capacities are provided to the user as an Internet service. In order to increase the efficiency of communications within the organization and for the current work with the personnel various cloud solutions are currently used which have their own specific features depending on what tasks they are focused on (Table 4). During the next few years we should expect active use of cloud technologies in the sphere of work with

personnel, including the procedure of recruitment and selection of personnel, online interviewing, personnel evaluation, testing, distance learning, etc.

Table 5. Examples of cloud products used in human resources work by Russian enterprises.

Cloud product name	Cloud Product Description
1C Bitrix: Corporate portal	Internal information management system of the enterprise for current personnel work and collective work on projects
Virtual remote desktop	The space, which is a substitute for the work computer, provides the user with full access to the workplace through the Internet. Recommended for remote employment with flexible working hours
Information storage (Corp.Drive, Dropbox, Dropbox Business)	Backup, synchronization and file sharing
Cloud IP-PBX	An online service that provides PBXs with call recording, multi-channel numbering, call forwarding, etc. The technology does not require the creation of a special infrastructure and the use of special equipment, it is enough to have access to the Internet
Video conference	Communication session between users, regardless of their location, using the Internet
Secure IT infrastructure to meet the requirements of Federal Law 152 and Federal Law 242 ("cloud of Federal Law 152")	Processing of employees' personal data, including ensuring the security of personal data and taking measures to protect this data from unauthorized access

One of directions of increase of efficiency of functioning of a personnel policy of the enterprise is use of the electronic document circulation, allowing quickly and qualitatively to process the big file of the personnel information. Electronic personnel turnover starts to develop actively in Russian companies, however, it lags behind in terms of the degree of development and prevalence of electronic turnover, used in the field of accounting and accounting information on the interaction between the company and its counterparties.

The use of the personnel electronic document management system makes it possible to send and receive important information promptly, using telecommunication channels. The main advantages of the use of electronic information exchange are: a significant reduction in the cost of sending documentation, rapid data acquisition by other organizations, simplicity and convenience in work, easy search for information, drawing up documents according to templates, tracking data transfer, information protection [24-28].

In 2018, the following state-of-the-art electronic document management systems were introduced in the Russian market: ECM Logic; 1C: Document Management; DocsVision; DIRECTUM; EDM Case; EMC Documentum; Corus-Consulting, Code: Document Management. These systems have a personnel block and can be used in work with personnel, to the negative moments of use of these systems it is necessary to note their unification and absence of the account of branch specificity.

The electronic system of personnel document management should not be closed at the local level [28, 29]. It is necessary to agree with the researchers [28, 29], who offer in order to ensure the effective functioning of the system of electronic document management the creation of a single information system, operating at the state level, with the help of which enterprises and citizens could receive the necessary information. The development of electronic personnel turnover is influenced by a group of factors, some of which can be considered as deterrents, the other part - as stimuli. The main deterrents include: underdevelopment of legislation in the field of legally significant (having a legal basis) document flow; aspiration of enterprises in the conditions of recession in the economy to reduce costs, including the maintenance of information technologies; lack of an individual approach that takes

into account the specifics of the industry and markets served; the need to simplify interfaces of all systems and applications to the user level; the lack of standard electronic document flow systems, etc. The following are the incentives for the development of electronic document management: the government's policy of rejecting paper technologies; the introduction of a register of Russian software; the dissemination and promotion of financial reporting and tax declarations in the Federal Tax Service in electronic form (by 2025, the electronic form of reporting will be mandatory for all enterprises); the creation of a single organizational and economic space for the maintenance of electronic document management systems; and the need to increase the speed of processing.

Business entities, interacting with representatives, including obtaining permits for the right to conduct business and carry out individual operations, for the execution of contracts with property management bodies, to provide information on the amount of accrued taxes and mandatory payments and contributions, experience the regulatory impact of many different government agencies. The absolute majority of organizations in the process of financial and production activities interact with the federal tax service, the federal service for labor and employment, the federal antimonopoly service, etc., and the interaction is carried out through the use of online technologies (Table 5), the most common areas of interaction with the authorities using online technologies in 2016-2017 were: receipt of forms of accounting and statistical reporting, provision of the Due to the lack of an appropriate platform, personnel information was not systematically provided, and it is obvious that this is one of the directions of development of personnel electronic document flow and improvement of its efficiency both at the level of economic entities and at the level of the state.

Table 6. Areas of interaction with government authorities using online technologies in 2016-2017, % of the number of organizations.

	Receipt of forms		Provision of completed forms		Receipt of public services entirely in electronic form		Participation in public procurement	
	2016	2017	2016	2017	2016	2017	2016	2017
Entrepreneurial sector, total for the entrepreneurial sector	69,6	67,8	69,4	67,6	38,3	58,0	26,9	26,2
including mining operations	77,7	69,3	77,5	68,8	44,9	59,3	15,8	14,5
manufacturing industry	84,2	81,7	84,6	81,3	47,7	68,0	29,9	25,6
Production and distribution of electricity, gas and water	77,0	75,5	76,2	75,9	41,4	59,4	37,3	44,4
construction	74,8	70,8	75,2	70,0	44,1	56,6	32,0	30,0
Wholesale and retail	70,2	65,4	70,4	65,1	36,2	57,8	18,9	16,5
hotels and restaurants	70,	69,6	71,4	69,5	41,9	58,1	33,7	34,9
traffic	61,8	66,1	60,6	66,8	32,2	56,7	23,2	25,6
connection	71,6	71,8	70,6	70,9	39,4	65,9	40,2	45,4
real estate operations, rent and provision of services	62,7	50,1	62,4	49,1	35,5	39,6	28,1	15,2

In the near future, the main factors affecting the development of electronic document management systems will be government initiatives to develop the information society, the active use of so-called "cloud" technologies and the growing popularity of mobile document processing, which will entail the increasing use of mobile devices for reading and processing documents.

In the opinion of researchers dealing with the issues of electronic personnel turnover [24-29], the main directions of development of electronic personnel turnover will be in the near future:

- 1) the use of electronic workbooks, which will be an effective electronic way of interaction between employers and those employees of the company who are employed remotely;

- 2) replacement of the parties' signatures on paper versions of documents with electronic signatures;
- 3) development of unified electronic forms of personnel records;
- 4) introduction of the practice of conclusion, amendment and termination of employment contracts in electronic form, especially it will be relevant in the interaction of the enterprise with distant and seasonal workers, as well as with those employees who leave to work at long distances on a rotational basis.

4. Conclusion

In conclusion, it should be noted that the transformation of the company's human resources policy is a necessary and inevitable process due to the transition to universal digitalization in all spheres of public activity. In order to build an automated personnel management system at the enterprise, the head of the enterprise must clearly imagine what goals he wants to achieve by implementing an automated system, and describe the logic of the actions of executors, effective from his point of view. In fact, it will be a description of the business process, as the head of the company sees it, and then gradually introduce this logic into the product chosen for automation [29, p. 140].

Inclusion of small and medium-sized businesses in the field of "digital economy" requires serious involvement of government agencies to ensure equal conditions for market participants in the competition. Information technologies create opportunities for the use of new tools to work with the personnel of the enterprise. The real increase in the efficiency of enterprises from the use of the latest information technologies is possible only on the basis of the creation of info-communication platform adapted to specific realities and including not only the technological component, but also legal, financial, knowledge and technology management system.

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