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USE OF INFORMATION TECHNOLOGIES IN THE HUMAN RESOURCES SYSTEM

Abstract

Nowadays, it is commonly believed that HRM is considered as one of the contemporary approaches which targets maintaining people, development as well as maintenance of human resource. This approach also has many importances to be considered. HRM aims, firstly, to develop profit and productivity and tend to avoid extra costs while recruiting. Secondly, another major target to be considered is maintaining quality of work life which strictly linked to maintaining work atmosphere and disputes. It should also be mentioned that recruitment and training is one of the most indispensable feature HRM deal with. Considering the factors mentioned above, this research mainly aims to investigate possible tools which assist HRM as a whole. Therefore, this thesis firstly discussed the possible theoretical part about what HRM is and how its different principles work, additionally, general tools and technologies which could be applied in this field.

Keywords: HR technology, digital transformation, big data analytics, automation HRIS (Human Resource Information System), virtual communication

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İnsan resursları sistemində informasiya texnologiyalarının istifadəsi

Xülasə

Hal-hazırda kadr idarəçiliyinin kadrların saxlanmasına, inkişafına və insan resurslarının qorunmasına yönəlmiş müasir yanaşmalardan biri kimi qəbul edildiyinə inanılır. Bu yanaşmanın bir çox nəzərə alınmalı önəmləri var. Kadrların idarə edilməsi, ilk növbədə, mənfəət və məhsuldarlığı artırmaq məqsədi daşıyır və işə qəbul zamanı əlavə xərclərdən qaçmağa çalışır. İkinci olaraq, nəzərə alınmalı olan başqa bir vacib məqsəd, iş mühitinin qorunması və mübahisələrin aradan qaldırılması ilə ciddi şəkildə əlaqəli olan iş həyatının keyfiyyətini qorumaqdır. Həm də qeyd etmək lazımdır ki, işə qəbul və təlim insan resurslarının idarə olunmasının məşğul olduğu ən əvəzolunmaz funksiyalardan biridir. Yuxarıda göstərilən amilləri nəzərə alaraq, bu tədqiqat əsasən kadr idarəçiliyinə kömək edən mümkün vasitələrin öyrənilməsinə yönəlmişdir. Beləliklə, bu məqalə əvvəlcə kadr idarəçiliyinin nə olduğu və onun müxtəlif prinsiplərinin necə işlədiyi və bu sahədə tətbiq oluna biləcək ümumi alətlər və texnologiyalar barədə mümkün nəzəri hissəni müzakirə etdi.

Açar sözlər: insan resursları texnologiyası, rəqəmsal transformasiya, böyük verilənlərin analitikası, avtomatik insan resurslarının informasiya sistemi, virtual ünsiyyət

Introduction

Statement of Problem – In conditions of market competition, each enterprise inevitably faces the problem of the most efficient use of all types of resources. In this sense, such a resource as human resource has a powerful potential reserve for development. Understanding the fact that effective HRM of an enterprise is the most important factor in the efficiency of the business as a whole has led to the formation of innovative approaches in this area, and the problem of optimizing HRM has become the most important national economic task. modern approaches to HRM, which contribute to its more rational development and use.

Currently, the problem of effective HRM is inherent not only in our country, but also in many other countries of the world. At the same time, the greatest attention is paid to the aspects of formalizing the solution of such tasks as human resource selection, certification, performance assessment, early identification of employees with certain managerial abilities, increasing the validity of decisions in the field of human resource policy, etc (Collings, Wood, 2009: 1-16).

Purpose of the Study – The purpose of the study is to form the concept of HRM based on the widespread use of new information technologies and the development of tools, namely websites which tackle common issues in work environment, allowing to expand the boundaries of automation in the field of HRM.

Significance of the Study - The relevance of this study is due to the fact that in connection with a change in approaches to HRM, new tasks arise, the solution of which is impossible without the use of modern computer technologies, since it requires a large amount of information that is constantly kept up to date and the organization of new information links.

The possibility of increasing the efficiency of using the human resources of an enterprise is largely determined by the structure and composition of information used to make managerial decisions regarding this type of resource. Computerization of information processes at the present stage of development offers the manager a powerful toolkit that allows him to solve the tasks of HRM at a qualitatively new, higher level (Dobrovinsky, 2011: 416).

Research questions – Research questions are as follows:

- analysis and refinement of approaches to HRM in the context of the use of computer technology;

- study of the possibilities of using new information technologies in HRM and their impact on the content of human resource policy, including the sphere of labor processes, employment policies, wages, income and training;

- development of recommendations for the functional analysis of software packages intended for HRM.

Human Resource Information System (HRIS) and working components. Human resource information systems are generally integrated systems built to inform human resource decision making. Let's take a look at the important elements of information systems (Fig. 1). There are several objective reasons for an organization to implement an HRM information system (Gal, Jensen, Stein, 2017). 1. Many administrative activities can be done more efficiently with less paperwork, much less form saving, and the required manual entry. 2. You can provide management with the information they need to make decisions more easily and quickly. 3. Effective HRM is gaining more strategic importance in many organizations, so information systems are very effective in predicting future requirements for strategic planning and human resources.
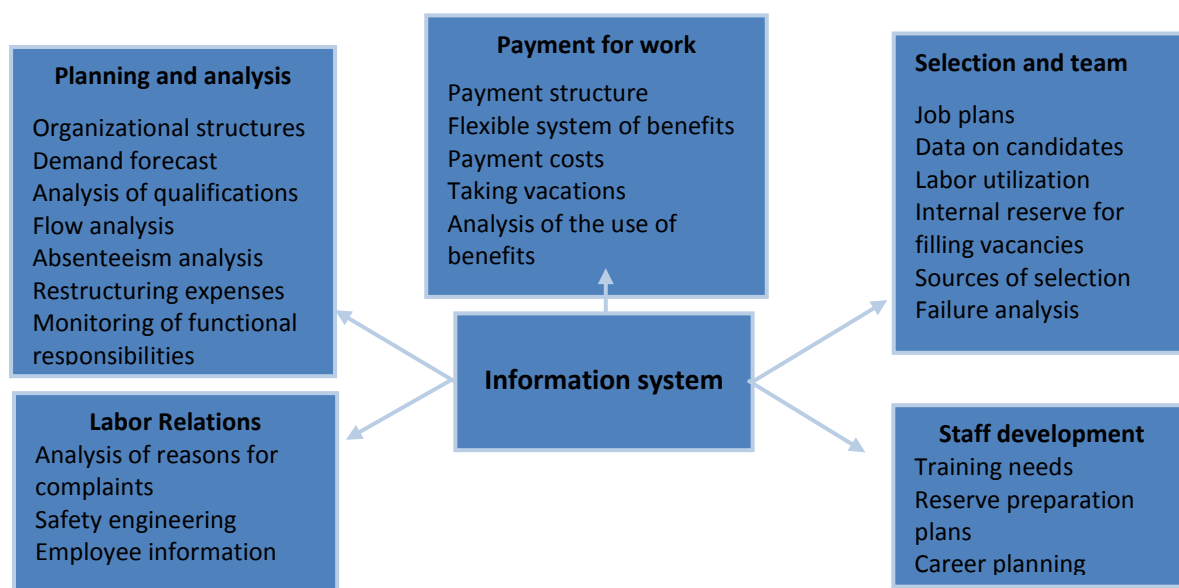

Figure 1. Elements of the Human Resource information system

There are many fields to apply an HRM information system in an organization. The main areas of the information system are: automation of the salary retrofit process, providing advantages that released appropriate deductions and other factors of Human Resource Service activities for HRM. Database-based information system that is accessed on the software is installed on the computer. A variety of logon formations and different information about employees and candidates can be translated into the following forms used by a computer in the organization database. Such databases can be entered for different purposes, and data does not have to be repeated and in separate files, such us payroll or personnel files.

HR managers have access to an up-to-date database to budget compensation and payments. Welfare Distributors can enter into the database and get relevant benefit information, Salary Coordinators can edit employee salaries using the database (Chakraborty, Mansor, 2013).

The information system of human resources, as an information system for human resources, has a direct implementation in the personnel department, and the employees of this department are users of this system. Improving the HR department is the main goal of the HRIS, which will indirectly improve the business.

The use of an information system in *HRM* helps to organize effective business building for the ability to compete with competitors. Human resource information systems enable the human resource specialist to become a strategic player.

Along with increasing functionality and availability, human resource information systems are widely used in organizations of all sizes. Stanton D.M. and Covert M.D. showed that the use of an information system depends on the size of the organization and its available resources (Batrakova, 2011: 46-49).

A business organization becomes successful and able to compete with competitors using the following information systems and technologies:

- An information system that supports human resources planning. Organizations that participate in long-term strategic plans, such as entering new markets, building factories and offices in new locations, and planning to add new products, have the amount of talent available to achieve their goals.

- information systems supporting labor negotiations.

Negotiating with trade unions of artisans, technicians, office workers and factory workers requires information gathered from many human resource information systems. The staffing group completes the work during the negotiations, it is necessary to be able to receive numerous special reports that analyze the positions of the organization and the trade union within the framework of both the industry and the current economic situation.

Investigate the technologies. HRM technologies are a combination of HRM methods focused on assessing and improving the human resource of an organization.

HRM technologies should be focused on solving two problems (Armstrong, 2012).

1) diagnostics, expertise of the "human dimension" of the organization;

2) maintaining developmental processes in the organization. HR consulting as a *HRM* technology can be carried out in two paradigms:

1. for resources - the consultant conducts an examination of the current state of the professional and personnel potential of the organization and proposes specific solutions to personnel problems;

2. by process ~ the consultant organizes the process of solving professional and personnel problems and trains employees on how to solve them on their own.

The choice of the paradigm is determined by the consultant himself, based on the specifics of the order and the professional tools that he owns.

HR consulting is carried out in two stages: analytical and programming.

Main activities at the analytical stage (Ammar, 2012).

1) specifying the situation that led to the need for counseling; reasons for the inability to independently solve the problem;

2. collection of additional information and hypotheses about personnel processes in the organization;

3. collecting data in order to test and clarify hypotheses, searching for additional information to concretize a possible counseling strategy;

4. clarification of the strategy and definition of the program of personnel consulting.

The programming stage aims to activate the human resource in the direction of the expected results. To do this, you need to create (Armstrong, 2004):

1. "developmental environment" - the formation of an artificial process in an organization aimed at training its employees in ways to identify and solve problems;

2. "supporting environment" - creating conditions for the process;

3. "fixing environment" - the transfer of the model process into a self-regulating one.

Achievement of the assigned tasks is possible only if the consultants manage to form in the organization a positive attitude shared by all towards the following principles of joint work on the problem: the principles of attractiveness (so that the "image of the desired future" in the final result of the consultation is attractive to all participants in the process), reality (orientation to the specific conditions of the current situation) and controllability (all participants, through appropriate contributions to the normative regulation of what is happening, can control the process of movement to the final result) (Durakova, 2009: 546).

Competition as a technology for attracting personnel.

A competition usually refers to a competition between two or more candidates to fill a vacant position.

Competitive procedures contribute to raising the prestige of the position, attracting more candidates, increasing the objectivity of decisions on hiring, democratization and openness of the *HRM* sphere.

There have been several approaches to the competition, when hiring and filling a vacant position (Egorshin, 2003: 720).

1. Elections. This procedure takes into account the opinion of the majority and does not conduct special preliminary tests of candidates. Their compliance with the vacant position is determined by the competition commission based on the study of documents. The advantages of the elective method are its speed and the ability to take into account the opinion of the collective, the disadvantages are subjectivity and the impossibility of insuring against mistakes (Komissarova, 2002: 312).

2. Selection. The decision on the eligibility of a candidate is made by a personnel commission headed by the directly superior manager or a person appointed by him. When evaluating the selected candidates, the competition commission, in addition to analyzing documents and characteristics, conducts interviews, sometimes interviews and psychological testing of candidates.

The role of technologies in the Evolution of HR. HR management has a rich history, but the future is even more exciting. Over the past half century, it has overcome three waves of development. And now the fourth wave becomes noticeable (Griffin, 2007).

The first wave brought up the administrative component in the work of HRs. They focused on creating a work environment, providing HR services and regulatory compliance. HR justified his "administrative and business utility." They continue to carry out administrative work to this day, only today they have the opportunity to attract outsourcing and various technological solutions to help themselves.

The second wave is associated with the emergence of innovative practices in recruiting, training, building communications, etc. Innovations touched on recruiting, motivation, succession planning and other areas. Each of these HR practices became innovative in terms of what and how to do. These practices have integrated with each other (Johnason, 2009: 19-37).

The third wave involved linking individual and complex HR practices with the business through strategic approaches. In recent years, HRs have worked to link their work to business strategies or goals. This work expanded HR practices and made it possible to focus the attention of specialists on talents, the development of corporate culture and leadership in the company. Taking into account the business strategy, HRs make decisions in the assessment of personnel and the development of talents, corporate culture and leadership. On this wave, HR professionals are

turning specific strategies into HR priorities to help deliver on strategic promises (Maslach, Schaufeli, Leiter, 2001: 397-422).

The economic crisis, globalization, technological innovation and other changes that we have witnessed in recent years have challenged HR people. And how do they respond to this challenge? Differently. Some want to look back and strengthen their administrative functions, while others are looking to focus on targeted HR practices. Western gurus see new horizons in their work.

The fourth wave in the development of HR is associated with the reaction to market conditions. Dave Ulrich calls this function "HR Outside-In". HRs will have to go beyond strategies to fit their work into the business context. At the same time, the three previous stages characterize the work that still needs to be done ideally: HR administration should be flawless, HR practices should be innovative and complex, and the actions of HR specialists should have a strategic component.

As it turned out, a study conducted by Dave Ulrich and his team, in order for HRs to perform the functions of the first three stages and be successful in the fourth, they need to master 6 competencies (Mayo, 2011).

Conclusion

The thesis generally focuses on investigation of Human Resource System, additionally, its management, automation, etc. Furthermore, it also discusses general perspectives of HRM and its analysis and this would also take tools and technologies which are commonly applied into consideration while investigating.

In the first chapter, theoretical background of HR system, as well as HRM and HRIS with their components were studied.

The second chapter looks at the role of technologies in the evolution of HR and main HR trends for 2018-2021, additionally some technologies were discussed to assess and improve the human resource.

Against the background of the problems that may arise in HR work environment, some tools, such as a website which was developed was stated and it should also be noted that this would hopefully prevent some issues generally faced by many of HR-s. Moreover, this maintains providing effective management system for HR-s to make way for creating a system which avoids wasting time and extra cost throughout work period.

The problems of enterprise HRM are currently considered in the available studies. In other words, this is a rich material containing versatile aspects of management and prepared by specialists in the field of management. Based on the established web-site, we could clearly state that the issues generally faced by HRs in work environment could easily be tackled with an advanced tool like this. These studies also present specific methods and models for solving all tasks in the personnel sector (search and selection, selection, performance assessment, certification, career, conflict situations and their elimination, testing, job descriptions, and others), the implementation of which is designed to influence the structure of employment, labor processes and personnel policy of the enterprise. If such a possibility and (or) necessity is noted, then it has either a declarative character or is expressed in the form of a wish.

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