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**SYSTEMATIC APPROACH TO THE PROPHYLACTICS OF PERSONNEL SECURITY OF ENTERPRISE**

In the organization of an effective complex security system not the last place is taken by its personnel subsystem which purpose is prevention and risk minimizations and threats from own personnel. If to consider system of an economic enterprise safety, then it can be divided into certain sectors:

— financial safety – questions of financial and economic activities of the enterprise, solvency and other "cash" questions;

— power safety is the mode of physical object protection, bodyguard of a management, counteraction to a criminal, interaction with law enforcement and other state bodies;

— information security – protection of own information, a trade secret. If necessary, it is information and analytical work, investigation;

— technical and technological safety – forming of technical base and the equipment, technologies and business processes which increase business competitiveness in the market;

— juridical safety – legal ensuring activities of the enterprise: relations with the state, partners, competitors, suppliers and others;

— personnel safety is people to whom the employer trusts the assets, resources and delegates powers for accomplishment of all above the specified actions [5].

It is permanent process on prevention and risk minimization and threats from own personnel:

— matching of reliable employees;

— control of reliability and loyalty of personnel in dynamics;

— timely identification and localization of the reasons and threats circumstances;

— careful screening of workers who create continual threats to business [7].

The personnel of the company influence all aspects of its activity, and also are inseparably linked with its economic safety. It is caused by the fact that, as a rule, the main company risks are generated by its own personnel. According to statistical investigations, about 51% of cases of economic crimes, the companies staff makes, and the effective work organization on ensuring personnel safety can lower by almost 60% of the direct losses and envisage the
indirect losses of the enterprise connected with a human factor [12]. Therefore process of ensuring personnel safety is one of important organization aspects of an economic enterprise safety as is necessary in case of liquidation of social and economic threats in their production business activity. 

Analysis of recent researches and publications

The analysis of the last researches and publications showed that questions of ensuring an economic enterprise safety in general, and including its personnel component are extremely urgent. It should be noted the significant contribution to development of this topic from the following Ukrainian scientists: N.S. Artamonova, A.V. Atraskova [4], S. Belyaev [7], L.L. Kalinichenko [5], K.V. Koptunenko [6, 11], A.I. Prodius [8], G.A. Smokvina [9], S.M. Turdiyev [10], S.V. Filyppova [11]. The analysis of the published works foreign (Valker P.G. [2], Seuring P.S., Sarkis P.I., Klassen P.G., Yavar S.A. [3]) and local scientists and specialists allows to draw a conclusion on insufficient paying of attention to prevention of personnel safety.

The aim of article is development of system approach to ensuring personnel safety at the enterprise, especially for prevention of personnel enterprise safety.

The main part

As shows the analysis, in Ukraine there are no complete prevention systems of office abuses and a fraud from own personnel, that is not enough attention from a management is paid to prevention. As shows experience, divisions, which are related to human resources management: the personnel department, security service, departments of risks, staff psychologists – everyone work in itself and often not only don't cooperate, and openly compete. In most cases company management not up to the end understands what appointment of security service is. It is not just protection of the enterprise, it is the mechanism which can be turned into single system of prevention and fight against official misconduct. But for this purpose it is necessary to create effective monitoring system of personnel safety in the company. System which includes a complex of actions:

- assessment of the candidate for employment stages,
- certification of already working employee,
- analysis of general and personal staff risks,
- policy correction of personnel motivation,
- then, through certain time, again certification of personnel and risk analysis to receive feedback and to estimate efficiency of the held personnel management policy events in general [7].

System which will give the chance to security service, personnel department and others to work round the clock with the standardized information. Personnel security is an ensuring an economic enterprise safety due to decrease in the risks and threats connected with substandard work of personnel, its intellectual potential and employment relationships

in general [9]. It shall hold a dominant position in relation to other elements of company security system.

Threats of personnel security can be external and internal. External don't depend on a will and consciousness of employees of the entity, but do harm. For example, if loyalty or motivation of personnel in the competitive enterprise is higher, it can lead to a staff turnover, and also the most valued employees. External threats can be also pressure upon employees from the outside, their hit in different types of dependence, inflationary tendencies (they should be considered in case of payroll calculation and forecasting of its dynamics).

To internal negative impacts it is possible to refer qualification discrepancy of employees to qualifying standards, the weak organization of a training system and advanced training, low-quality checks of candidates in case of employment, inexpert corporate policy [10].

These and some more other parameters can cause essential financial damage to the enterprise.

In our opinion, there are three major factors of personnel security.

The first is recruitment. First of all, we will consider realities of acceptance procedure for work. In case of not passing of the previous stage, the candidate is eliminated. So:

a) a preliminary stage – the correspondence exercise of functions by candidates for a position;

b) an interview at the enterprise. Can consist of two stages: 1. testing of the candidate by general questions: logic, erudition, education; 2. an interview with the human resources manager or future head of department;

c) check by security service: availability / lack of the criminal record on bases of the MIA, check of reference of the last employer and so forth.

What is result from the point of view of personnel security in case of such procedure? As we see:

a) the employee was convinced that the candidate is rather erudite and has necessary psychophysical characteristics for holding the post;

b) the human resources manager (head of department) realized for himself that the candidate is a professional in his direction;

c) the security service was convinced that the candidate didn't have problems with the law and positively is characterized by its environment.

Check is finished. Here also the main mistake during creation of prevention system of personnel threats appears. Professionalism isn't synonym of concept the fair and decent person, as a rule, adventurers and swindlers – it is professionals with excellent business qualities. As well results of security service check don't guarantee, that once having broken the law, the person will always violate it or the one who at the time of check didn't break the law, but hides in himself tendencies to making of office abuses in the future. For prevention the main thing at the candidate is of such qualities as honesty, decency, reliability. Thus, without having received due confirmation of honesty and decency of the
candidate, his degree of stability or predisposition to making of office abuses, the enterprise employs him. Second main mistake: personnel and economic safety of the enterprise responsibility is born only by security service, and the department of personnel management has no relation to it. It is extremely wrong. Specialists of personnel service have a potential opportunity to decrease of enterprise losses connected with personnel resources to 60%. But personnel security depends not only on its choice. Documentary and legal ensuring employment, a probation period and even adaptation directly raise safety issues of the company.

The second factor is a loyalty – desire to follow statutory rules of behaviour in firm, value, behaviour standards, it is system which is directed to establishment of the positive attitudes of workers towards employers. From the one as whom the employee of the enterprise feels himself– the important employee who is appreciated or replaceable "small screw" depends its relation to work. Through the relation, product quality can improve or worsen, and, therefore, there is a threat of defect which directly conducts to losses.

Control belongs to the third factor. According to the statistics 10% of employees will never make illegal actions, 10% will always make them, and 80% abuse in the presence of opportunities. The purpose of personnel policy consists in elimination of making opportunities of illegal actions for 80%. Control is intended to check as far as, established for personnel, including for administration, regulations, the restrictions, the modes, engineering procedures, estimative and other action of safety procedures are carried out. These measures are directed to liquidation of damnification opportunities and are fulfilled, as a rule, by security service or other divisions, but to a lesser extent service of personnel.

At the same time the principle of "compensation of attention insufficiency" works to separate factors. If the enterprise didn't make employment a part of a security system, didn't take care of strengthening of personnel loyalty, so it will spend big resources for control, identification and investigation of losses. Thus, personnel security, being an element of an economic company safety, it is aimed at such work with personnel, at establishment of such employment and ethical relationships which could be determined as "break-even" [11].

From the point of view of the safety-oriented approach each candidate for a position, each employee of the enterprise shall be considered as a permanent source of risk and potential threat for the enterprise, the more especially as the purpose not only the enterprise in general, but its divisions and employees is in income acquisition.

As it was already told above, prevention considerably reduces losses of the enterprise from personnel risks and threats. It is known that it is cheaper to prevent, than to eliminate therefore we will dwell upon the initial stage of hiring, namely checks of the candidate for honesty.

With development of information technologies many processes at the enterprise it is possible and it is necessary to automate, especially, in case of employment that will allow excluding a subjective factor.

The analysis showed that least costly to address to outside agency, which render services than to buy the necessary software and to pay work of the specialist. One of tools allowing to determine honesty, loyalty and reliability of future employee is the THL test determining the level of honesty, loyalty and reliability of employees. In table 1 it is shown that can be estimated by this test.

<table>
<thead>
<tr>
<th>Testing parameters</th>
<th>Characteristic of parameters</th>
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<tbody>
<tr>
<td>Honesty</td>
<td>readiness to give true information / tendency to distort information</td>
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<tr>
<td>Plunders</td>
<td>denial / positive perception to plunder of company property (money, information, goods)</td>
</tr>
<tr>
<td>Bribe</td>
<td>denial / positive perception of a bribe</td>
</tr>
<tr>
<td>Standards</td>
<td>observance / denial of the provisions of the law and society, rules and instructions of the employer</td>
</tr>
<tr>
<td>Office qualities</td>
<td>politeness, accuracy in work / intolerance, aggression, roughness to the client</td>
</tr>
<tr>
<td>Drugs</td>
<td>tendency to the use of drugs and others</td>
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</tbody>
</table>

Source: Compiled by the author according to the materials [7]

Feature of the test is that it diagnoses predisposition to office offenses and abuses in the future. The THL test is an innovative technique of reliability assessment of the candidate, worker loyalty and risks of company personnel.

It should be noted simplicity of the procedure:
- the computer connected to the Internet is necessary for testing;
- duration of testing is 20-25 minutes;
- the head receives result and recommendations within an hour;
- only the authorized person can receive results of tests;
- low cost of the procedure (300 UAH) [7].

Main benefits of this sort of tests:
- the system of ethical and moral standards, but not psychophysiology of the personality is researched;
- intentions to give the social expected answers are considered;
- individual recommendations for holding a personal interview are made [7].

Implementation of such tests in a personnel management process promotes:
- matching of reliable employees;
- representatives identification of "risk group";
— increase in personnel loyalty;
— control of reliability and loyalty of personnel in dynamics;
— timely detection and localization of the reasons and circumstances of threats;
— decrease to 50% of office personnel abuses;
— accurate elimination of those who create permanent threats to business.
— reducing staff turnover and discipline strengthening;
— increase in level of profitability, safety and company image in the market.

Therefore, use of such types of tests for determination of candidate reliability for a position will allow the enterprise to facilitate considerably tasks from ensuring personnel security, in addition to the listed above benefits, considerably reduces time for choice of personnel and excludes a subjective factor.

But, if the enterprise rather big and to it the staff turnover is inherent, perhaps it should use software products. We will analyse what software products are available in the market and which are reasonable for using for prevention of crimes from personnel (tab. 2).

Table 2. The analysis of the main tools for automatic personnel recruitment

<table>
<thead>
<tr>
<th>Name</th>
<th>Opportunities</th>
<th>Cost</th>
<th>The main benefits and shortcomings (if is)</th>
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<tbody>
<tr>
<td>Staff.im – web application for personnel recruitment</td>
<td>Work with recruitment agencies in the online mode; Determination of doubles when entering the new candidate; General calendars with colleagues and partners from recruitment agencies; Notifications on the received letters, an interview, new comments and tasks; Schedules for the analysis of activity with a possibility of printed output, inclusion in the presentation; Import of curriculum vitae of candidates from the websites on job search; Search in social networks; Correspondence with candidates; Information privacy; Feedback from colleagues – discussion of candidates with colleagues through the application or on email.</td>
<td>3500 UAH</td>
<td>Simplicity of assimilation (15 min. without assistance); Data security (Data storage in the protected Data center, daily backup, data transmission under the ciphered protocol similarly) Search in social networks - the program can find the candidate's profiles in popular social networks (VKontakte, Facebook, Twitter, etc.)</td>
</tr>
<tr>
<td>E-Staff Recruiter – automated system of personnel recruitment</td>
<td>Storage of regular structure (for personnel services of the enterprises) Accounting of clients (for recruitment agencies), and also any partners (suppliers). Accounting of vacancies and requests for employees choice. The automatic announcements publication of vacancies in the Internet. Search of candidates on the Internet. Import of the curriculum vitae of candidates from mailboxes and the documents Microsoft Word Work with candidates The adjusted access for the customer (head) for viewing of the candidates who reached a certain stage of matching through an enterprise portal. Possibilities of appointment to candidates of testing through external system of testing. Storage of complete work history on each candidate, vacancy and customer. Sending the summary and standard messages on the adjusted templates. Search of any data in base as by formal criteria and by words. Receipt of statistics as on all company and on each recruiter. Expansion of base the additional database fields and reference books used in the company. Integration with other program systems (The boss-personnel officer, 1C, SAP, etc.)</td>
<td>3500 UAH – one workplace 47000 UAH – unrestricted number of workplaces</td>
<td>Benefits: Passings of a probation period and maintaining complete candidates base which ever contacted to the enterprise Possibility of appointment to candidates of testing through external testing system and automatic loading of results in system. Shortcomings: Additional fee for technical support and versions updating (a half from value); Possibility lack of distant work with the database on the Internet</td>
</tr>
<tr>
<td>Vocation City – web program for personnel recruitment</td>
<td>Placement of your vacancies Handling of the curriculum vitae Database creation</td>
<td>2200 UAH monthly</td>
<td>It is integrated into the corporate company website; Determination of curriculum vitae sources and efficiency analysis of announcements placement.</td>
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<tr>
<td><strong>Experium – program for personnel recruitment automation</strong></td>
<td>The program allows to create and keep candidates database, together with colleagues to work on vacancies, to organize interaction with linear managers, to post announcements on 20 largest job offering sites and to load feedbacks from applicants, to attach various document types, to create reports and to collect various analytics.</td>
<td>From 20 thous. UAH to 390 thous. UAH.</td>
<td>Benefits: Recognition (syntactic analysis) of the curriculum vitae - decomposition of information from any curriculum vitae; Sending electronic messages from the program. Shortcomings: High cost</td>
</tr>
<tr>
<td><strong>Persia – the online decision for recruiting automation</strong></td>
<td>Creation of single candidates base; Communication with candidates and history; Choice of candidates for vacancies; Calendar of interviews; Team recruiting; Involvement of candidates; Statistics; Safety and confidentiality; Integration with the websites.</td>
<td>1750 UAH monthly</td>
<td>Possibility of work with the help of mobile applications for iOS and Android; Vacancies publication on social networks It is integrated with other system modules - Learning; Awards and bonuses (Compensation); Personnel administration (Employee Central); Career and development (Succession &amp; Development); Assessment and goal-setting (Performance &amp; Goals); Corporate social network (SAP JAM); Analytics and long-term planning of personnel (WFA/WFP).</td>
</tr>
<tr>
<td><strong>SuccessFactors (Recruiting)</strong> – it is a cloudy management system</td>
<td>All processes of talents management (choice, adaptation, goal-setting and assessment, training, management of succession, development and competences) and also employee administration (Core HR) and payroll calculation. Components can be implemented separately, but at the same time they are closely integrated among themselves within complex system.</td>
<td>from 78 thous. UAH.</td>
<td></td>
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<tr>
<td><strong>Recruiter – the specialized automation program of personnel recruitment</strong></td>
<td>Rich functionality: accounting of candidates for work, vacancies, agreements, interviews. Personnel recruitment process automation: automatically calculates the ratings candidates at each stage of the choice, transfers candidates from a stage for a stage, and also reminds of approach interviews, exit days of candidates for work and the terminations of probation periods. Use of opportunities Internet: allows to correspond with candidates for work on e-mail, and also creates the Website of electronic company recruitment. Simplicity of implementation: it is easily established on the computer convenient and simple in work, there is a built-in help system.</td>
<td>from 4000 UAH.</td>
<td>Benefits: Automatic calculation of candidates rating at each stage of the choice. Shortcomings: Possibility lack of distant work with the database on the Internet.</td>
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<tr>
<td><strong>CleverStaff – cloudy and corporate system for recruiting</strong></td>
<td>Filling of candidates’ base: synchronization with LinkedIn, hh.py, mailboxes, addition of the resume in base from the file by means of technology of syntactic analysis of the resume (recognition of data). Findings of suitable candidates: search in company base, LinkedIn and VKontakte. Simplification of communications with customers: automatic report generation about the done work on vacancy, a possibility of sending the resume without candidate contacts. Conveniences of work in system: there are no restrictions of system functions - unrestricted number of vacancies, candidates, files; integration about Google Calendar and stickers for notes and reminders.</td>
<td>500 UAH monthly (one user can use free of charge system)</td>
<td>Company work with feedbacks and product modification. Synchronization with LinkedIn, VKontakte. The automatic rating and the recommendation of candidates for your vacancies will prompt which resume approach best of all. Any number of vacancies, candidates, files</td>
</tr>
</tbody>
</table>

*Source: Compiled by the author according to the materials [13-20]*
On the basis of the carried-out analysis of tools for automatic personnel recruitment it is possible to draw a conclusion that any of them isn't able to ensure prevention personnel safety of the enterprise. All tools are directed, generally on search of personnel, creation of base, almost all provided software products have similar algorithms of action and offer similar opportunities and while the ideology, on which they are constructed, promptly grows old therefore our recommendation for the enterprises – to lease software products or to use a subscription for a year with the subsequent analysis of feasibility. IT technologies quickly develop. By means of science about data – Data Science – is created multiple-factor computing model, which it is automated determines, who can be taken, who - isn't recommended, who will be released and when, who will progress, who – won't be, what measures are for maintenance of adaptation of the hired personnel. It once again proves importance of personnel company security.

Conclusions

Personnel safety is one of the main components of an economic company safety. A lot of things depend on enterprise personnel: the capability of the enterprise to compete in the market, quality of products/services and generally its functioning. The special attention should be concentrated at a preliminary stage of personnel choice for threats prevention from personnel. Development of information technologies allows to facilitate and improve considerably the organization of this process, but tools, which are capable to ensure personnel safety of the enterprise at the previous stage – prevention, haven't presented at the Ukrainian market yet.

Abstract

Introduction. Staff organization affects all aspects of life, and inseparably connected with its economic security. This is because the main risks of the company are usually generated by its own staff. According to statistical studies about 51% of economic crimes are carried out by employees of companies and the effective organization of work on ensuring the personnel safety can lower direct losses on almost 60% and expected the indirect losses of the company associated with the human factor.

Purpose. The article is to develop a systematic approach to the personnel safety at the enterprise, especially for its prevention.

Research results. Based on the analysis tools for automated recruitment can be concluded that none of them is able to provide prevention of personnel security. All the tools are aimed primarily at finding staff, create a database, almost all software products are with similar algorithms performance and offer similar features and despite the fact that the ideology on which they are built is rapidly getting older, so our recommendation for enterprises – rent software or use the subscription year with subsequent analysis of expediency. IT-technology develop rapidly. Using Data Science the multifactor computing model is created which determines automatically who can be taken, who will retire and when, who will progress, which measures are to support adaptation of hired staff. This proves once again the importance of staff security.

Conclusion. Personnel safety is one of the more important components of economic security. Much depends on the personnel: the company's ability to compete at the market, quality of products / services and general functioning. Particular attention needs to be concentrated on the preliminary stage of selection of personnel for the prevention of threats from staff. The degree of development of information technology can facilitate and improve the organization of this process, but the Ukrainian market has not provided by the tools that can ensure the personnel safety on the previous stage-prevention.

JEL Classification: M12, M15, M54.

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