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**THE CORPORATE PERSONNEL TRAINING SYSTEM
DEVELOPMENT: THE EXPERIENCE OF RUSSIAN
ENTERPRISES**

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Abstract

The article analyzes the Russian practices in organizing and carrying out staff training, which showed. that in many companies a single corporate training system has not yet been formed, the stages of organizing and carrying out training have not been worked out qualitatively, feedback on the training and the quality of training programs is implemented poorly. The system of corporate training in Russia does not differ in its diversity in forms and methods that are used. To solve the existing problems, the authors developed and proposed to implement a conceptual model of the corporate training system, the main element of which is the informational and diagnostic unit that allows monitoring and evaluating the effectiveness from implementing individual subsystems and the training system as a whole. The system of personnel training on the basis of continuous monitoring and evaluating the quality of implemented individual elements will allow time to make adjustments and to improve the quality of all sub-processes in the system based on the feedback principle. This article presents a summary of each element for the personnel training system. In order to assess the quality of the corporate training system, it is also proposed to create a database according to three groups of indicators: performance indicators of the corporate training system as a whole; key performance indicators of the training department and its employees; performance indicators of specific educational programs.

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Keywords: Information technology; a model of educational system, coaching.



1. Introduction

The modern rapidly changing world, based on the knowledge-based economy and information, seriously changes the conditions for enterprises existence and functioning – there is a deep restructuring in labour processes, new innovative technologies are introduced, advanced techniques and methods of work with personnel are mastered, new jobs appear (Simonova, Ilyukhina, Bogatyreva, Vagin, & Nikolaeva, 2016). In these conditions, the most important resources for organizational changes and business competitiveness are people and their knowledge – the intellectual capital, as well as high professional competence. As the experience of the most successful domestic and foreign companies shows, investments in human capital, creating attractive conditions for the qualitative growth of employees and improving professional potential that gives 2-3 times higher returns than the funds aimed at solving purely production problems. Therefore, today the majority of Russian enterprises start considering the costs, associated with staff training, as a priority and the most profitable investment. Trained employees can solve complex production tasks easier, looking for the right answers to non-standard questions faster, successfully cope with difficulties; such employees have a higher level of loyalty and commitment to their enterprise, a higher degree of readiness to work for the result with full dedication. Training allows not only to increase the level of knowledge and develop the required professional skills of employees, but also to form a corporate system of values and attitudes that contribute to support the organizational strategy and culture within the company.

The rapid development of information technology and the rapid pace of new scientific developments have accelerated the process of updating information and knowledge. Thus, if in the middle of the last century the half-life of competencies averaged 10-12 years, today the renewal of knowledge in such industries as Economics and Management, Technology and Information Technology, occurs in less than three years, and the half-life of competencies is 1,5 years, respectively (Kudryavtseva, 2015). In these circumstances, the issues of continuous training and professional staff development become particularly relevant. It has become more common in Russian companies the idea of creating corporate training systems based on the concept of continuity and continuous improvement, corporate universities and learning institutions are developing. An increasing number of companies are moving from the practice of «Bringing the worker to the learning» to the practice of "Bringing learning to work".

2. Problem Statement

The concept of "learning organization", which became widespread in 1990-s in America and Europe (Senge, 2003; Rumizen, 2004; Porter, 2005), today finds a great response in domestic business companies, introducing new innovative approaches and methods of working with the staff, based on the key role of human resources to achieve strategic goals, and conducting organizational changes. However, it may safely be said that the question to apply this concept in Russian companies' may be only start developing its appropriate conditions for its implementation, one of which is the formation of corporate training and development systems. It seems to us that the formation of personnel training system at an enterprise, taking into account the deep study and regulation of all its components will be the most important mean to achieve the strategic company goals.

The analysis of the scientific literature in the context of corporate training system development and human resource development has allowed us to make a conclusion about the low level of its theoretical and methodological elaboration in the works of Russian authors, mostly using the translated literature (Vesnin, 1998; Shekshnya, 2002; Magura & Kurbatova, 2004; Odegov, 2005; Kibanov, 2010). In foreign countries, on the contrary, individual scientists and practitioners studied in detail the theoretical and practical issues of planning and organizing corporate adult education. In particular, the questions of andragogy as an independent science are deeply stated in the works of Malcolm Shepherd Knowles (Knowles, 1980), he also defined the conditions practical implementation of a successful process for adult learning (Knowles, 1980); the study of changes in learning ability with age (Thorndike, 1962); the hierarchy of cognitive learning objectives (Bloom, 1956); developed a four-stage cyclical experiential model of the process of learning and absorption of new information (Kolb, 1984); the classification of methods for adult learning (Dale, 1969); detailed the questions of organizational learning forms; the features of training adults (Knowles, Holton, & Swanson, 2005); the methods to evaluate effectiveness of staff training (Kirkpatrick & Kirkpatrick, 2007). Study and analysis of these and other foreign sources allowed us to talk about deep theoretical study of separate stages for organizing and personnel training. Also, we can apply their practice in forming the Russian corporate training systems.

3. Research Questions

The organizational analysis of personnel training in Russian enterprises showed that many companies have not yet formed a unified training system for human resources of the new generation that could work in the specific conditions at the modern innovative stage of development; there are no conditions for individual personal growth in the workplace. In some Russian companies, as a rule, the individual issues, identifying training needs, are worked out in details, thematic training plans are developed, the budget for employees training is formed annually, but the feedback on the training and the quality of training programs is implemented poorly. Many Russian companies today (for example, Gazprom, Neftekhimprom, MTS, Sibneft, Russian aluminum, Tatneft, Wimm-bill-Dann, Severstal, VimpelCom, AlfaStrakhovanie) use active methods, developing the potential of its employees, aimed at maximum approximation of the learning results to the field of practical students' activity (simulation modeling, business quests, artificial intelligence in T&D), which allow you to "sharpen" the employees' competence under their own production, but there is no full assessment of the training effectiveness and the training programs quality.

It should also be noted that the system of corporate training in Russia does not differ in its forms and methods. The most popular types of employers training today are trainings as «field training» or internship. In small and medium-sized Russian companies training is not carried out at all, which are usually due to the lack of reasonable planning and organizing employees' training or insufficient funding.

4. Purpose of the Study

It seems to us that the task of forming corporate training systems is acute and paramount, especially for large and medium-sized enterprises. Deep qualitative changes in the structural elements of

the system, the training forms and methods for different categories of personnel, careful study of all educational stages based on the integrity of the system, the use of innovative approaches to professional employees' development, defining the new channels of investment in human capital, the mobilization of material and financial resources from various sources.

The rational construction of the educational system on structural elements will allow, on the one hand, to create a systematic working model of employees training based on the concept of continuous training; time to make adjustments and qualitatively improve all sub – processes on the basis of the feedback principle; to consider knowledge as a source for enterprise development, and on the other - to constant maintaining a high level of professional personnel competence; to use proactive training, focusing on organizational changes in the environment.

Thus, we can say that today the relevance of forming unified conceptual approaches to the corporate systems development of human resources training is not in doubt and it's a condition for innovative strategic changes in companies.

5. Research Methods

Analysis and systematization of gained domestic experience in corporate training systems development (Kibanov, 2010; Chulanova & Timchenko, 2016; Vorotyntseva & Nedelin, 2008), allowed us to identify two groups of models developing such systems: procedural models, including a sequence of actions and stages, implementing training programs and structural and functional, reflecting the composition, functions and relationships responsible for the process and students. The training system development based on the procedural model is coincided with the theoretical concepts of systematic training and systematic training, which are put into practice in modern companies very actively.

Studying the nature and features of these models, as well as the company experience in staff training at Russian enterprises, we formed a conceptual corporate system model for the personnel training based on a systematic approach (see Fig. 01).

As any system object is considered as a set of interrelated components that form a single entity, the system of corporate training includes a set of interacting subsystems that give it integrity and unity. The level of development and effectiveness in such a system will be determined by the development of its constituent elements and the underestimation of the role or poor methodological development of any component that will lead to risks and reduce the effect of the training system as a whole. We can say that the proposed model integrates both procedural and structural-functional models, which gives the system completeness and integrity.

Surely, the main interested individuals in the training system are the human resources of the company, and therefore the methodological basis to develop the training system will be to provide the theory of human capital, considering training as a long-term investment, contributing to the increase of individual income and corporate profits. In the continuous the study of the methodological foundations, building corporate training systems, we can agree with the opinion of Aksenova (2008), offering as theoretical concepts, developing training systems to use the principles of a humanistic approach, including the development in the learning process not only professional and corporate competencies, but

also the adjustment of values, traditions, norms of behaviour, the development of corporate culture and company brand.

If the company's learning culture is only emerging, the foundation for this system should be the principles of training that determine all subsequent work phases on making, operating and evaluating training elements of the system, as well as being the basis for the development and implementation of management decisions in the field of professional and corporate personnel development. Training policy acts as a kind of link between the internal learning environment of the company and the external conditions of its existence. Major strategic changes in learning, dictated from the outside, must begin with a review and adjustment of policies, only after which the "wave" of changes must affect the adjustment of technologies, forms and methods of learning.

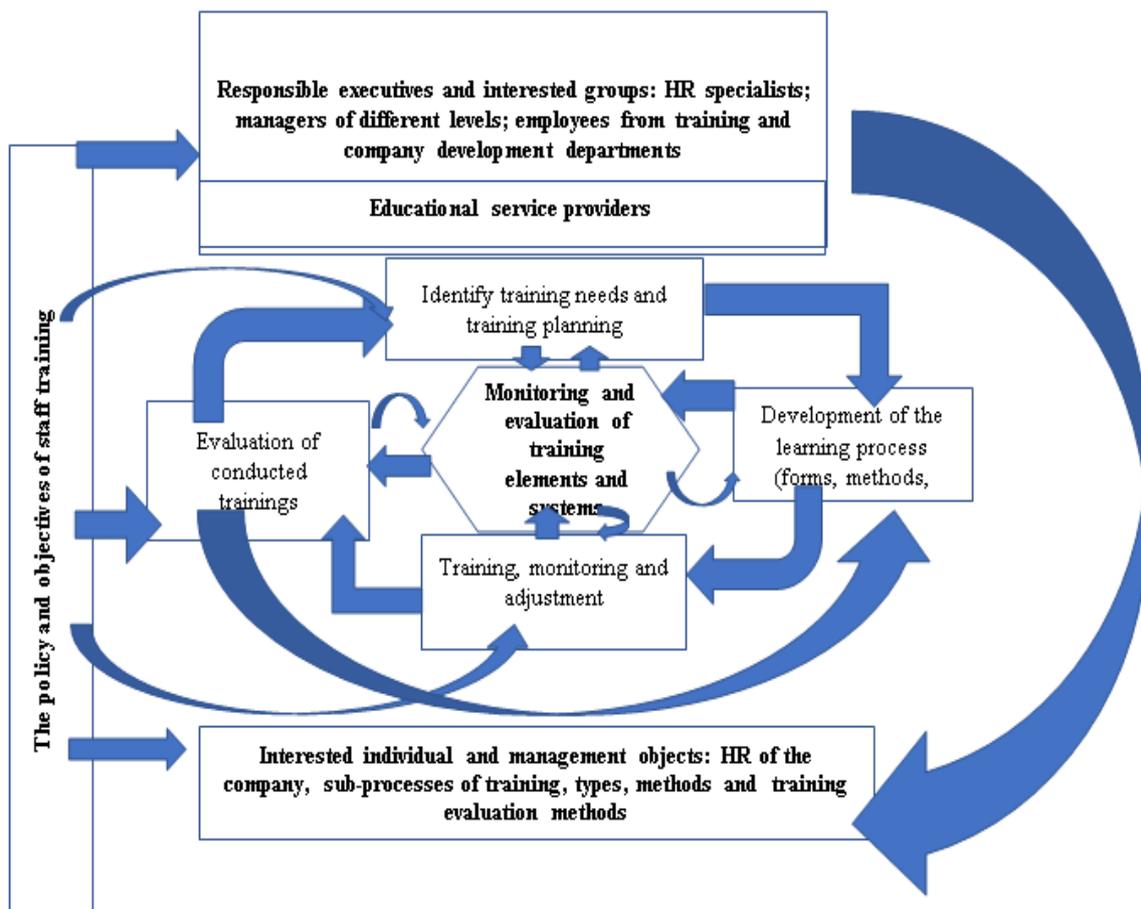


Figure 01. The conceptual model of corporate personnel training system

Study the experience in the training Policies development a number of large machine-building enterprises in Samara we summarized and systematized the principles used in the field of human resources training (see Fig. 02).

It is important to note that today's training Policies of many leading Russian companies include the features of Peter Senge's "learning organization" (Senge, 2003), such as to continue the learning process; to have a common vision and values; to use knowledge as a source of organizational change; to involve all employees in training. From the point of view reducing the declarativity and making this document

more practical, it is necessary to include in the training Policy structure such sections that identify training needs, choose an educational service provider, characterize the forms and methods of training used in the company; define issues about budgeting and evaluation of training results.

The most important stage in the system of corporate training is to determine the need for training and its planning – this is one of the links to organize the process, which quality depends on the effectiveness of the subsequent employees' activities, company departments and, most importantly, the effectiveness of the corporate training system as a whole. It should be noted that the discrepancy between the goals of employees' training and the company development needs is a serious risk, reducing the expected effect from human resources training. Based on a precise quality definition (clear goals formation; what to teach, what skills to develop) and the quantity need (how many employees and what categories of personnel to train) for training, the business environment analysis, thorough the assessment of the company workforce potential, designing thematic, calendar and functional plans for training and personnel development, can achieve a significant reduction in such risks. Creating a system to assess the impact of training on the results of company production activities will not only assess its effectiveness, but also make the necessary adjustments in time.



Figure 02. Policies principles in the field of personnel training a number of large machine-building enterprises in Samara

In the Russian practice, determining the need for staff training, two approaches can be distinguished. The first is functional, which is reduced to “knocking out” the company's management the maximum possible amount of financial resources. The second approach is focused on business goals, which implies that the HR specialist should not allow the organization's resources to be spent on educational programs that in no way contribute, improving company economic performance. The second approach involves the examination of the application for training.

As the Russian practice shows, applications for employees' training are filled out by heads of departments, as a rule, based on the assessment of their labour achievements and personal subjective opinion. A staff training plan drawn up only based on the analysis of applications that may be not always objective and economically justified.

With the aim to improve the planning quality of training employees there are encouraged to use variety of methods to identify quality training needs (Ilyukhina, 2015) (see Fig. 03), the choice, which depends on the solution of the most priority issues: achieving business targets, efficiency of solving production problems, available resource, cost of the method, etc.

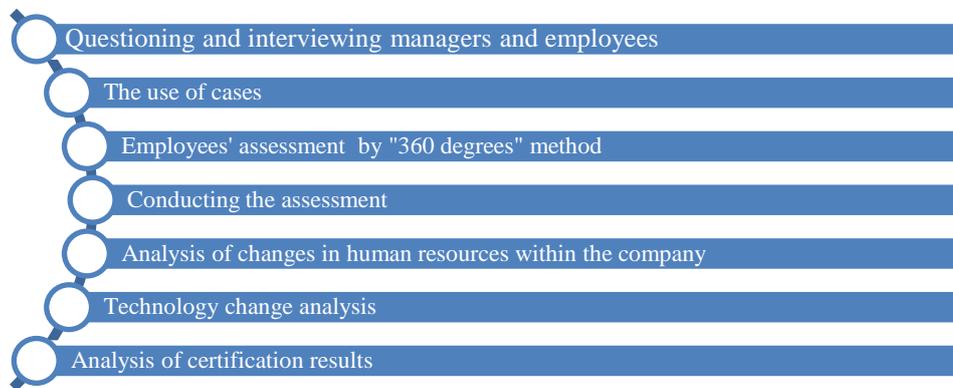


Figure 03. Methods for identifying training needs

Analysis of training methods used today in Russian companies allowed us to formulate some trends in their diversity. For employees with a high level of qualification, high level of motivation and self-confidence, the emphasis is to use active, innovative technologies of teaching methods, aimed to build managerial, communication skills and business qualities (business simulation game, training, business quests, action training, computerized training and others). According to statistics, today in Russian companies the largest share in the list of training methods that are used: modular training - 83%, coaching - 78% and training in working groups – 60%, distance learning – only 37% of the total list of methods (Ignatieva, 2018; Tumanova, 2018).

The weakest link in building corporate training systems in Russian companies today, in our opinion, is the issue on training results evaluation. The vast majority of cases show, that companies use traditional methods of evaluation, such as a trainee' questionnaire and a management questionnaire, which corresponds to the first and second levels of evaluation according to the Donald Kirkpatrick model. Rare companies go down in the assessment to the third and fourth levels, and this is one of the most important tasks of qualified improvement of corporate training systems. And the main problem here is the collection of data on the employees' performance that have been trained.

Despite the fact that investments in training are profitable, their effectiveness in most cases cannot be calculated because it's difficult to determine the "net effect" of the training, i.e. the amount of cash flows generated by training, rather than the total amount of income for the enterprise during the period under review. In addition, and at the level of individual business units and individual jobs are not tracked and recorded data on the results of performers' labour activity who have been trained, as well as in general according to departments. With that in mind, we believe it is necessary to include in the model of the corporate training system the information and diagnostic units that allow monitoring and evaluating the effectiveness from implementing individual subsystems, as well as the entire training system, and, consequently, the investments (see Fig. 01).

In order to assess the quality of the corporate training system, it is proposed to create a database according to three groups of indicators:

1. Absolute performance evaluation of the corporate training system as a whole. They "parameterize" the system of personnel training, demonstrate its dimensions, for example, how many employees have been trained, how many training programs have been implemented, what budget has been allocated.

Absolute performance is useful in two cases:

- if they are tracked in the dynamics within one company, the company is aware of what it seeks - to reduce or increase the rate by how many percent per year. While calculating performance indicators, it is important to create a plan of specific actions, which should be done if the indicator "crawled" in the wrong direction. Here training providers can provide consulting support to the customer.

- if the performance evaluation of the training system in a particular company is compared with similar companies in the market.

Examples of recommended absolute performance indicators for staff training are presented in Table 01.

Table 01. Absolute performance indicators of the training system, developed for the industrial enterprises of Samara (data 2017)

Performance indicator	Calculation	Comment
Training budget as % of the payroll (company revenue, company profit)	$18500000 / 1250000000 = 1,48 \%$	The calculation of the indicator makes sense only if information is available for other companies or for previous years (but there is a problem of comparability of data).
Budget for training 1 person per year	$18500000 / 7676 = 2410$ rubles / 1 person.	Can be considered by categories of personnel: engineers, workers, etc.
The load on one member of the staff training Department	$7676 / 2 = 3838$ people.	The average number of personnel in the company on the number of employees in the structure.
"Capacity" of one employee of the personnel training department	External: $76 / 2 = 38$ training sessions	The ratio of the total number of training sessions (training units) to the number of staff in the training and development department. Disadvantage: training sessions differ in volume and complexity of the organization
Average cost of 1 day (1 hour) of training	-	The indicator is interesting in dynamics and in comparison. It should not grow more than the price of training in the market, and in comparison with others it should behave as prescribed by the strategy of working with suppliers The global trend of this indicator is to decrease due to the widespread use of e-learning and blended learning.
Training intensity - number of training hours per year per employee	-	Number of hours for external / internal training

2. The second group of indicators is the relative indicators or key performance indicators (KPI - Key Performance Indicators) of the training department and its employees.

KPIs are personalized targets set for employees in the training department that are associated with company goals. Their use will make it possible to assess the contribution of the training department, implementing the corporate strategy. KPI will allow you to monitor the employees' business activity and the company as a whole in real time.

As part of the research, the main and additional indicators for the staff of the training and personnel development department, developed for a specific industrial enterprise in Samara, were proposed. As an example, Table 02 provides some recommended core and additional key performance indicators for staff in the training and development division.

Table 02. Table 02. Key performance indicators for employees of the training and personnel development department (fragment)

P/n	KPI	To the Manager for specialists and managers' training	Normative value of the product	Comment
Main indicators:				
1.	The percentage of implementing the staff training and retraining plan	+	100%	Does not take into account the qualitative component of training
2.	Cost estimates for staff training	+	100%	Does not take into account the qualitative component of training
3.	The percentage of the staff who successfully passed the final examinations ("3", "4", "5"), total number of students	+	1 to 20 and less	The indicator is influenced by the personal characteristics of students and the skill of the teacher
Additional indicator:				
4.	Number of serious comments on the external audit results of the quality management system	+	1 comment	
5.	Share of group training methods trained in the total number among students as main workers	+	70 % or more	
6.	Number of mistakes in the execution of documentation	+	3 mistakes per week	
7.	The share of actually trained in the number of those who have the need for training (due to the production need, according to the results of the evaluation)	+	90% or more	

3. The third group of indicators - performance indicators of specific educational programs (courses, seminars, trainings). These indicators will provide information about the benefits of training for business (based on a comparison of the actual performance among the employees) before and after training.

It is useful to analyse the proposed indicators groups for qualitative assessment of the corporate training system in a complex, because it is possible to achieve a large attendance of trainings in the company, but the training will not be effective for business. You can have a large training and development department, a well-thought-out strategy for working with training companies, but the turnover of the company's staff will grow. On the other hand, staff turnover may be reduced, but the price of the issue will be too high if the company will spend on training its employees much more than competitors. The most effective system of corporate training, in our opinion, is the one that the best way to achieve business results use financial resources below the market average.

6. Findings

Having analysed the development and implementation of personnel training corporate systems in a number of Russian industrial enterprises, we can formulate some existing problems:

1. Fragmentation in regulating individual stages and planning sub-processes to organize personnel training, which significantly reduces their quality and effectiveness.

2. The policy in personnel training at some enterprises does not disclose the issues, identifying training needs; choosing the provider for educational services; training budgeting; evaluating training results that made it mainly declarative.

3. In most cases, the identification of training needs is based on an analysis of the training application filled out by the head of the unit. This may not take into account the opinion of the employee. Alternative methods of identifying training needs aren't used enough.

4. The system of corporate training in Russia does not differ in the variety of teaching methods.

5. The weakest link in the Russian systems of corporate training is the effective assessment of the training, poor quality monitoring during the training programs. As a rule, the tools of the first level in the D. Kirkpatrick model are used in assessing the effectiveness of the training.

6. There are no approaches to assess the effectiveness of the corporate training system as a whole.

The solution of the identified problems, in our opinion, is to develop a corporate training system based on the author's model, the backbone element of which is informational diagnostic unit that allows monitoring and evaluation of the effectiveness, implementing individual subsystems and the training system as a whole. The system of personnel training on the basis of continuous monitoring and the quality evaluation of the implemented individual elements (subsystems) that will have time to make adjustments and qualitatively improve all sub-processes of the system based on the feedback principle.

In addition, in order to make a qualified assessment of the corporate training system, it is proposed to create a database according to three groups of indicators:

1. Performance review of the corporate training system as a whole - to monitor the dynamics of changes and compare similar companies in the market;

2. Key performance indicators (KPIs) of the training department and its employees - to assess the contribution of the training department to implement the corporate strategy;

3. Performance indicators of specific educational programs (courses, seminars, trainings) – to assess the quality and benefits of training for business.

Using the indicators to monitor the training system will allow to receive information and to control the weaknesses in time, to carry out timely corrective and preventive actions, to significantly improve the quality of the system.

7. Conclusion

Thus, a serious methodological elaboration of the conceptual model for the corporate training system on structural elements will reduce the risks of investment in employee training and become an effective means of developing the labour potential in the company. For example, the risk of non-compliance the training goals with the goals and requirements of the business will reduce the quality of the procedure for identifying training needs through the use of questionnaires or interviews among managers or analysing innovative changes within the company, studying strategic goals and objectives.

The risks associated with the poor quality of training will be reduced with the help of the effective assessment the specific training programs, as well as the assessment of trainees' skills and professional behaviour (on the second and third level of the D. Kirkpatrick model). Another important factor is the selection of educational services suppliers e based on compliance with the quality standard requirements ISO 9000. Risks of low motivation to training among employees can be solved by developing incentive programs for staff and their professional development.

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