



## **PERSONNEL MANAGEMENT RISKS AS A FACTOR OF THE INNOVATIVE PROCESS\***

**Irek Kamilevich Nizamutdinov\*\***, **Olga Vladimirovna Kiselkina**,  
**Vladimir Valentinovich Malaev<sup>2</sup>**

*Kazan Federal University, Institute of Management, Economics and Finance,  
4 Ulitsa Butlerova, 420012 Kazan, Republic of Tatarstan, Russia*

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### **Abstract**

In the Russian economy, much attention is currently being paid to improving the efficiency of organizational functioning, particularly by enhancing the quality of products and services. One of the potential innovative changes in this area is the implementation of a quality management system. This study aims to investigate the risks associated with personnel management as a factor in the innovation process. The study was conducted by surveying employees of an enterprise that produces products for the automotive industry. Based on the results, effective operation of the system requires coordinated personnel actions and the development of new competencies. As such, personnel management risks, including personnel risks in general, become important factors that offer opportunities to enhance enterprise efficiency. Consequently, identifying the most significant factors affecting personnel work and their significance in modern organizations is crucial in addressing risks related to personnel management.

*Keywords:* efficiency, innovation, quality of goods and services, risk management

### **1. Introduction**

One of the main issues in the modern Russian economy remains the issue of introducing innovations into the current activities of organizations and enterprises. Considering the innovative component of Russian business, we should note that innovative changes quite often remain at the level of declaring intentions or are not comprehensive and meaningful. If innovative changes are really implemented, then there is an underestimation of those moments that can neutralize the positive role of innovation (Alshuaybat, 2021; Bandyopadhyay et al., 1999; McKenzie and Rapoport, 2010). Innovations can be implemented only within the framework of systemic changes affecting both production elements and the management of the organization's personnel,

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\*\* Corresponding Author: irek.nizamutdinov@gmail.com

implementing these innovations in practice. In this case, a preliminary assessment of the risks that accompany the implementation of the innovation process is required. At the same time, personnel management risks play a basic role in improving the efficiency of the organization (Arundel et al., 2019; Barykin et al., 2021; Dang et al., 2021; Richardson et al., 2022).

Innovation activity - a type of activity associated with the transformation of ideas (usually the results of research and development or other scientific and technical achievements) into technologically new or improved products, or services introduced on the market, into new or improved technological processes or methods of production (transfer) services (Crossan and Apaydin, 2010; Ghosh and Hamad, 2021; Miorando et al., 2014).

There are the following basic types of innovative activity:

- Research and development.
- Instrumental preparation and organization of production, covering the acquisition of production equipment and tools, changes in them, as well as in the procedures, methods and standards of production and quality control required for the manufacture of a new product or the application of a new technological process (Bagautdinova and Kadochnikova, 2020; Gallyamova et al., 2014; Safiullin Azat and Gubaidullina Asiliar, 2018; Turfboer and Silvius; 2022).
- Acquisition of materialized technologies - machines and equipment, according to their technological purpose, associated with the introduction of technological and other innovations.
- Acquisition of non-material technologies from outside in the form of patents, licenses (agreements) for the use of inventions, industrial designs, utility models, disclosure of know-how, as well as technological content services.
- Education, training and retraining of personnel due to the introduction of technological innovations.

## 2. Methods

One of the most important goals in the Russian economy today is the quality of products and services. The introduction of quality management systems at Russian enterprises provides for the determination of the target purpose of the management system and personnel processes. In addition, an enterprise should approach the development of management processes from the standpoint of risk-oriented thinking (Han et al., 2019; Malaev and Nizamutdinov, 2017).

The risks of the personnel management process in this case are considered as possible threats or losses associated with the work of the organization's personnel.

To determine the main risks associated with the personnel management process, a study was carried out by questioning the employees of an enterprise that manufactures products for the automotive industry. The study involved specialists and heads of the main structural divisions of the enterprise, constituting a cross-functional team: the process manager - the head of the personnel and security department, employees of the personnel management service, the executive director, employees of the economic department, financial and accounting service, quality service, internal logistics service, service chief engineer and leading legal adviser.

The cross-functional team was asked to identify risks, assess the level of probability of risk occurrence, as well as the level of risk consequences according to the proposed criteria. After identifying key risks, the cross-functional team expertly assessed the level of likelihood of occurrence and the level of consequences of risks.

The level of competitiveness of an enterprise in the field of management can be quantitatively determined by the corresponding index. The lowest score of the index is at 0 points, very high at 100 points, and is determined as follows:

$$I_E = \sum E_J * \lambda_E, \quad \partial \partial e$$

$E_J$  - indicators of the competitiveness of an enterprise in the field of management in the formation of a quality management system,

$\lambda_E$  - weighting factors that determine the significance of factors, the sum of which is equal to 1.

### 3. Results and discussion

We have identified the factors of enterprise competitiveness in the field of human resource management in the formation of a quality management system, where  $E_1, E_2 \dots E_8$  are indicators of enterprise competitiveness, and  $\lambda_E$  are weights determined by the method of expert assessment of the joint-stock team of JSC (joint-stock company).

**Table 1.** Factors of competitiveness of an enterprise in the field of human resource management in the formation of a quality management system

$E_j$	Factors of competitiveness of an enterprise in the field of human resource management in the formation of a quality management system	$\lambda_E$
$E_1$	Reliability and stability of the company	$\lambda_1 = 0.1$
$E_2$	Career and professional growth opportunities	$\lambda_2 = 0.06$
$E_3$	Possibility to submit proposals for improving working conditions	$\lambda_3 = 0.06$
$E_4$	Full and timely informing of staff	$\lambda_4 = 0.11$
$E_5$	Personnel training and development system	$\lambda_5 = 0.13$
$E_6$	Mutual assistance and team cohesion	$\lambda_6 = 0.07$
$E_7$	Human Resource management planning level	$\lambda_7 = 0.1$
$E_8$	Absenteeism rate	$\lambda_8 = 0.11$
$E_9$	Personnel engagement rate	$\lambda_9 = 0.15$
$E_{10}$	Compliance with labor protection and industrial safety requirements	$\lambda_{11} = 0.11$

As a result of the study (Table 1), we form a quantitative gradation for the corresponding indicators on a scale from 0 to 100.

1. For the indicator  $E_1$  "Reliability and stability of the company" before ( $J_1$ ) and after ( $J_2$ ), the numerical values of the formation of the quality management system:

$$E_1^{J_1} = 8; E_1^{J_2} = 4.$$

2. Indicator  $E_2$  "Opportunity for career and professional growth" - the level of the system of certification and assessment of employees, work with the personnel reserve, the level of career planning:

$$E_2^{J_1} = 3.6; E_2^{J_2} = 1.2$$

3. Indicator  $E_3$  "Realization of the opportunity to submit proposals for improving working conditions":

$$E_3^{J_1} = 4.8; E_3^{J_2} = 0$$

4. Indicator  $E_4$  "Full and timely informing of personnel" - the level of development of the internal and external information system, information and communication support of the human resource management system:

$$E_4^{J_1} = 11; E_4^{J_2} = 0$$

5. Indicator  $E_5$  "Continuity of the personnel training and development system" includes the level of training and retraining of employees, the level of development and implementation of training programs:

$$E_5^{J_1} = 13; E_5^{J_2} = 5.2$$

6. Indicator  $E_6$  "Mutual assistance and solidarity in the team":  $E_6^{J_1} = 5.6; E_6^{J_2} = 4.2$ .

7. Indicator  $E_7$  "The level of planning for human resources management" is complex and includes financing of activities for the management and development of human resources, the level of staff turnover, the effectiveness of the selection and recruitment procedures, the level of work with potentially retired employees:

$$E_7^{J1} = 10; E_7^{J2} = 2$$

8. Indicator  $E_8$  "Absenteeism rate" (due to illness, annual regular vacations, absenteeism, idle time):

$$E_8^{J1} = 8.8; E_8^{J2} = 2.2$$

9. Indicator  $E_9$  "Personnel engagement level" determines the sense of personal responsibility for the manufactured products, for the achievement of success, both personal and the company, and the understanding by employees of their contribution to achieving the goals of the enterprise and the impact of their results on the efficiency of consumers:

$$E_9^{J1} = 12; E_9^{J2} = 3$$

10. Indicator  $E_{10}$  "Compliance with labor protection and industrial safety requirements" - the level of working conditions, the effectiveness of measures for labor protection and industrial safety, the implementation of measures aimed at improving working conditions:

$$E_{10}^{J1} = 11; E_{10}^{J2} = 4.4$$

We determine the indices of the competitiveness of the enterprise in the field of human resource management, as well as the personnel aspects of the innovative potential of the enterprise before and after the formation of the quality management system:  $I_E^{J1}$  (after the formation of the quality management system) = 87.8;  $I_E^{J2}$  (before the formation of the quality management system) = 26.2.

Thus, the indices of the selected indicators of the company's competitiveness in the field of human resource management before and after the formation of the quality management system allow for continuous monitoring of the development of the personnel components of the enterprise's competitiveness, the potential of employees and formulate appropriate strategies for the development of the enterprise's human resources management system (Safiullin et al., 2020; Singh et al., 2020).

#### 4. Conclusion

Based on the results of the study, the most relevant risks were identified:

1. Difficult situation in the labor market for skilled workers.
2. Failure to comply with the requirements of the legislation of the Russian Federation (in the field of labor law, labor protection, industrial safety).
3. Absenteeism (absence of personnel or their absence in the workplace).
4. Lack of qualifications or insufficient qualifications to perform production operations.
5. Violation by employees of labor discipline and job duties.
6. Low level of staff satisfaction.

Risks such as:

1) Failure to comply with the requirements of the legislation of the Russian Federation may lead to consequences related to violation of the rights of employees, labor disputes, litigation and the imposition of penalties on the employer. However, the degree of possibility of the occurrence of this risk is minimal, which makes it possible to assess this risk as manageable.

2) Absenteeism directly affects the ability to fully implement the production plan and ensure the quality of products, which leads to the loss of profits for the enterprise. The risk is as low as possible.

3) Lack of qualifications or insufficient qualifications of personnel leads to errors in the ongoing production operations with corresponding losses, to the impossibility of ensuring product quality. The release of low-quality products contributes to the lost profits of the enterprise and the deterioration of competitive positions in the segment of the nonwovens market, as well as the loss of key consumers.

The risks that received an average level of assessment in terms of the severity of consequences are as follows:

1. Difficult situation in the labor market for skilled workers.

2. A low level of staff involvement and satisfaction leads to a decrease in proactivity, lack of initiative and interest in producing quality products, creating an “unhealthy” atmosphere in the team, and, consequently, a high level of staff turnover.

3. The receipt of occupational diseases leads to inspections of the enterprise by authorized bodies, as well as social payments at the expense of the enterprise.

A low level of assessment in terms of the severity of the consequences received a risk - violation by employees of labor discipline and job duties. To avoid this risk, it is necessary to more carefully select personnel when hiring, as well as to check the knowledge of employees at regular intervals.

Thus, the formation of an optimal system for the implementation of the innovation process requires considering the risks of personnel management and creating an effective system for their assessment and minimization.

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