Professional Stress Management Among Officials at Customs Authorities

K V Trubitsyn¹, O Y Kalmykova¹, Y N Gorbunova¹
¹Samara State Technical University, Molodogvardeiskaya str., 244, Samara, 443100, Russia

E-mail: trubitsyn.kv@samgtu.ru

Abstract. The article deals with the urgent problem of managing the professional stresses of customs officials. The study presents the types of organizational and social conflicts while in the performance of duties. Stress factors and factors of personnel risks in the personnel management system and in the labor behavior of customs officials have been analyzed. The types of coping strategies of customs officials have been researched. In the paper, the authors formulated the recommendations for improving the management system of professional stresses for customs officials. The implementation issues of the preventive education in the customs bodies have been discussed. A model of a professional stress management system in the organization has been designed. The authors suggest the conflict counseling and the provision of a system of trainings to be considered as a socio-psychological method of managing the professional stresses of customs officials. The results of various sociological surveys among customs officials and students specializing in the subject Customs (Samara State Technical University) have been presented. The principles and methods for the stress-competence development of customs officials have been discussed.

1. Introduction

Human resources of the customs body require comprehensive development, improvement of their professional knowledge, as well as constant monitoring the quality of working life and the effectiveness of human resource policy implementation.

Organizational changes in the customs system have a negative impact on the socio-psychological climate among the staff including the increase in the level of stressfulness of the organizational environment, the decrease in the job satisfaction and the level of mindset of the staff, thus resulting in a decrease in efficiency and productivity of the organization.

As part of the implementation of social and educational management functions, the manager together with the customs psychologist needs to develop a professional stress management strategy. The aim of this strategy is to prevent the destructive stress situations faced in the process, create a favorable moral and psychological climate, increase the stress competence of officials and minimize the personnel risks [1, 2].

The contradiction is that there is a problem of managing professional stresses among officials, and the customs management practices do not have well-defined stress management strategies which should be aimed at harmonizing the social and labor relations and the system of legal regulation of customs activities.
2. Problem setting
Current socio-economic instability in society shows the present-day need to study the impact of the staff morale, the level of stress and social tension in the organizational environment, the number of destructive conflicts on the efficiency and productivity of staff.

The process of increasing staff productivity is influenced by both objective factors (organization of staff labor, economic and social conditions) and subjective factors (salary satisfaction, staff morale, labor safety, etc.). In modern research in the field of personnel management, it is important to take into account the relationship among productivity, satisfaction and impetuses [3].

A topical problem is the development of stress-competence of managers and staff. C.K. Prahalad and G. Hamel [4], D. Mc Clelland [5], C. Woodruffe [6], J. Burgoyne [7] contributed to the understanding of the integral concept of the term competence. The analysis of consulting support methods for management processes in conflict and stressful situations is carried out by H. W. Mastenbroek [8].

A lot of modern research focused on solving the problems of managing the conflicts and professional stresses in an organization, principles and methods for building the conflict competence in an organisation. R. N. Anantharaman et al. in the paper [9] explore the role of self-efficacy and collective efficacy as moderators of professional stress among the organization’s staff.

G. Brown et al. in the study [10] analyze the factors of labor behavior that need to be considered when building the staff morale in the organisation. Methods of professional development of organization’s staff aimed at improving the communicative competence of staff and managers are considered in the paper [11] (J. Costello et al.).

The study of this paper focuses on the present-day problem of managing the professional stress among customs officials. The authors analyze the relationship between the staff satisfaction and subjective factors (stress in the organizational environment, staff morale and comfort level of the organizational environment).

The causes of conflict and stressful situations in the workplace of the customs authority may include unsatisfactory working conditions, low professional or stress-competence of both officials and managers, problems of labor motivation, business information misstatements, violations of the standards of conduct within the group, incompatibility of employees due to their individual personality, socio-demographic differences, etc.

A significant part of the factors resulting in an increase in the level of professional stress is related to their professional duties [12].

To achieve the objectives of the functioning and strategic development of an organization by progressively harmonizing disagreements during the implementation of managerial, economic, innovative and production situations, the strategy for managing professional stresses should be built with respect to the personnel management strategy of the customs authority.

The efficiency of the management practice of this strategy depends not only on the level of professional and managerial competence but on the level of stress-competence development of customs officials as well.

To organize an effective strategy for the prevention of occupational stress, the psychologist needs to identify the sources and factors of staff’s professional and organizational stresses, to assess the stressfulness of the organizational environment, and identify, evaluate and build the potential personnel risks profile of the customs authority.

3. Research issues
The development of a strategy for managing professional stresses in the customs body involves the following tasks that provide integration of future employees (Customs students) and customs officials:
- at university: development of students’ stress-competence; increasing the level of conflict management culture among subjects of the educational process, etc.;
- at the customs authority (linear, operational and corporate levels of management): development of managers and officials’ stress-competence; implementation of the conflict counseling system; development of a personnel risk management strategy, etc.;
- at university and at the customs authority: development of the methodological support (educational and methodical recommendations and manuals, a bank of conflict management tasks, etc.) used in the educational process at university and in conflict counseling of officials at the customs body.

The relevance of developing the strategy for managing professional stresses and improving the level of officials’ stress-competence is justified in the paper by the survey based on opinions of managers and HR specialists at customs authorities, as well as Customs students.

4. Research aim and methods
The aim of the study is to develop methodological and practical recommendations on the development of a professional stress management strategy to improve the educational system in customs authorities and implement conflict counseling for officials in the performance of personnel management functions at customs authorities.

The tasks of the diagnostic stage of the study included the analysis of the typology of potential labor conflicts and stress factors of the organizational environment at the customs authorities; the diagnostics of the level of officials’ organizational stress; identification and assessment of personnel risks; determination of the comfort of the organizational environment; diagnostics of coping strategies of officials (2014-2018).

A survey [13, 14] was conducted among customs officials in order to identify the causes of organizational conflicts in the customs body.

Respondents identified the following causes of destructive conflicts and stressful situations:
- imperfection of the labor motivation system; inefficiency of the resource system of the labor activity; a high level of personalization in the field of officials’ responsibility; stress and intensity of labor; relationship disorganization between the structural elements of the customs authority and the officials; an inadequate number of programs for the prevention of destructive conflicts and professional stresses of the officials; stressful relationships between customs officials and citizens; not full suitability for the position in terms of qualification, moral and ethical, individual and personal qualities; conflict of interests in the customs authority.

The effectiveness of the work of customs officials depends, in our opinion, on the factor of continuity of the conflict management training for future employees.

It is obvious that monitoring the officials’ opinions on a potential professional portrait of a Customs graduate provides a particular stage in the strategy of stress – competence development.

In the process of educational programs development (at university) and trainings (at the customs authority) aimed at stress-competence building for officials, the authors carried out surveys (2014-2018) to determine the most significant competences in the field of stress management. The survey included the following tasks:
- empirical evidence of the importance of stress-competence for the customs official’s effective professional activity;
- defining the effective methods for the stress-competence building at university and the system of conflict counseling in the customs authority;
- creating the bank of tasks concerning the specificities of stressful situations and professional stresses of customs officials.

Objectively, an empirical justification of the stress-competence significance involves the analysis of the opinions of three groups of respondents: customs officials (external assessment); Customs graduates (internal assessment); Customs students (internal assessment).

Thus, the survey involved three groups of respondents: customs officials (28 respondents), senior Customs students (454 respondents) and university graduates. The list of proposed competencies for assessment, in addition to competencies in the field of conflict management and occupational stress,
included other competences chosen randomly (competences in the field of personnel risk management, economic security, personnel innovation, etc.).

The most significant competencies chosen by officials, students and graduates included competences in the field of timely diagnostics of stress factors of the organizational environment, competencies in the prevention of occupational stress and burnout syndrome, competences in the field of development and implementation of personnel strategy to manage conflicts and professional stresses.

The least important competencies chosen randomly included competencies in the field of economic security (graduates); in the field of personnel risk management (students); in the field of personnel innovation (customs officials).

The study (2015-2018) included diagnostics of coping strategies [15] of future customs officials, junior and senior Customs students (265 respondents). Students chose to a greater extent cognitive coping strategies (63%) in conflict and stressful situations; emotional coping strategies (18%) and avoidance strategies (19%).

To identify the stress factors of the customs environment, the level of satisfaction with working conditions and the emotional state of officials, the stress monitoring was conducted [16]. The results of stress monitoring (2014–2018) are presented in Table 1 and Fig.1. Note that for the period 2014–2017, the impact of stress factors on officials was at an average level and did not reduce the staff productivity but in 2018 it was already at a critical level and could initiate the labor disruptions.

Evaluation of the emotional state at the second stage of stress monitoring among officials showed the following results: in the period 2014–2016 respondents showed an average degree of emotional exhaustion and depersonalization and a high degree of reduction of personal achievements (total: average degree); in the period 2017-2018 - a high degree of emotional exhaustion, average depersonalization, reduction of personal achievements: high degree (total: high degree). The key factor in the burnout of officials is prolonged work overload and organizational changes.

For the period 2014–2018, the method Determining the comfort of the organizational environment [17] was used to obtain an integral characteristic of the organizational behavior of officials. Diagnostics was carried out by consistent calculation of comfort indices, individual for each official and general for a staff. According to the survey results (28 respondents), the value of the overall comfort index of the behavioral environment in 2018 is positive.

Thus, the study examined the following factors of the organizational environment that impacted on the job satisfaction of customs officials: an indicator of stress load level, an indicator of the degree of emotional burnout, an indicator of organizational stress, an indicator of the comfort of the organizational environment. Figure 1 shows a graph of job satisfaction data (%) from 2014 to 2018. According to the results of surveys, there is a slight increase in job satisfaction for 3 years until 2016, then a slight decrease in the rate by an average of 1.5% per year.

![Figure 1. Graph of job satisfaction of officials.](image-url)
Table 1 presents the input data for the modeling.

Table 1. Input model data.

<table>
<thead>
<tr>
<th>Year</th>
<th>X₁</th>
<th>X₂</th>
<th>X₃</th>
<th>X₄</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>3.7</td>
<td>67</td>
<td>47.61</td>
<td>32</td>
<td>60.3</td>
</tr>
<tr>
<td>2015</td>
<td>3.6</td>
<td>73</td>
<td>48.07</td>
<td>31</td>
<td>65.8</td>
</tr>
<tr>
<td>2016</td>
<td>3.5</td>
<td>79</td>
<td>48.53</td>
<td>28</td>
<td>71.3</td>
</tr>
<tr>
<td>2017</td>
<td>3.4</td>
<td>85.5</td>
<td>48.875</td>
<td>27</td>
<td>70.45</td>
</tr>
<tr>
<td>2018</td>
<td>3.3</td>
<td>92</td>
<td>49.22</td>
<td>26</td>
<td>69.6</td>
</tr>
</tbody>
</table>

X₁ – an indicator of the stress load level, X₂ – an indicator of the emotional burnout degree, X₃ – an indicator of the comfort of the organizational environment, X₄ – an indicator of the organizational stress, Y – job satisfaction.

Consider multiple linear regression

\[ Y = a_0 + a_1 \cdot X_1 + a_2 \cdot X_2 + K + a_m \cdot X_m, \]  

(1)

where \( Y \) – regression function, \( X_1, X_2, K, X_m \) – independent variables, \( a_1, a_2, K, a_m \) – regression coefficients, \( a_0 \) – free term of the equation, \( m \) – number of factors included in the model.

Model parameters (1) are identified by the least squares method based on minimizing the deviation from the points of the initial time series:

\[ Y = -9.32 \cdot 10^{-9} - 264.846 \cdot X_1 - 5.79 \cdot X_2 + 30 \cdot X_3 - 0.78 \cdot 10^{-10} \cdot X_4. \]  

(2)

Model (2) shows that with an increase in the comfort index of the organizational environment by 1 unit, the job satisfaction increases by 30 units. However, other factors have a negative impact on the job satisfaction.

The consequence of reduced accuracy is the unreliability of the regression coefficients and, in part, the unacceptability of their use for the interpretation as a measure of the impact of the corresponding explanatory variable on the dependent variable. The coefficient estimates become very sensitive to sample observations [18, 19]. For further research in this field, a model in the form of production functions is going to be developed [20, 21, 22].

The development of a professional stress management strategy in customs bodies should be carried out with respect to potential personnel risks. Personnel risks accompany the activities of customs authorities and may be as follows: an increase in the conflict and stress level of the organizational environment; the risks related to the inefficient use of personnel technology and individual HR procedures that make up the content of the customs service process; information security threats; staff’s unreliability risks; communication risks; occupational risk, etc.

In the study (2017-2018) the authors carried out an assessment of personnel risks arising in customs authorities. The study was conducted in the form of a questionnaire which contained questions related to the causes of personnel risks.

The list of personnel risks is based on the use of a basic set of personnel risks. Customs officials (25 respondents) had the opportunity to assess the significance and probability of a particular risk. The method of expert assessments was chosen as a method for assessing the personnel risks.

The authors used a set of indicators of quantitative and qualitative assessment of personnel risks which included two groups: results and the probability of personnel risks [23, 24]. To assess the values of personnel risks, the Harrington scale was used [25]. The result of the assessment is building a personnel risk profile of the customs body. The risks of the personnel management system and the personnel risks that received the highest estimates are presented in Table 2.

According to the respondents, in the Risks of the personnel management system block, the risks of an unfavorable socio-psychological climate in a team and the risks of information support have the highest rating. In the Risks of personnel behavior block, the psycho-physiological risks (age, health, psycho-physiological characteristics, etc.), educational and communication risks have the highest rating.
Table 2. Personnel risks profile of the customs body.

<table>
<thead>
<tr>
<th>No</th>
<th>Personnel risk</th>
<th>Assessment of significance of risk - impact values (results)</th>
<th>Assessment of frequencies (probabilities)</th>
<th>Final risk assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Internal risks</td>
<td>Risks of the personnel management system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>interpersonal conflicts, <em>conflict of interest</em></td>
<td>0.58</td>
<td>0.60</td>
<td>0.59</td>
</tr>
<tr>
<td>2.1.2</td>
<td>unfavorable staff morale in the work team</td>
<td>0.66</td>
<td>0.77</td>
<td>0.71</td>
</tr>
<tr>
<td>2.1.3</td>
<td>inefficient system of motivation and incentives</td>
<td>0.61</td>
<td>0.56</td>
<td>0.58</td>
</tr>
<tr>
<td>2.1.4</td>
<td>inefficient labor and rest regimes of officials</td>
<td>0.47</td>
<td>0.44</td>
<td>0.45</td>
</tr>
<tr>
<td>2.1.5</td>
<td>lack of measures aimed at building the loyalty of officials</td>
<td>0.60</td>
<td>0.51</td>
<td>0.55</td>
</tr>
<tr>
<td>2.2</td>
<td>Personnel risks</td>
<td>communication risks</td>
<td>0.72</td>
<td>0.76</td>
</tr>
<tr>
<td>2.2.1</td>
<td>personal risks</td>
<td>0.56</td>
<td>0.48</td>
<td>0.52</td>
</tr>
<tr>
<td>2.2.2</td>
<td>occupational risks</td>
<td>0.46</td>
<td>0.38</td>
<td>0.42</td>
</tr>
<tr>
<td>2.2.3</td>
<td>educational risks</td>
<td>0.70</td>
<td>0.70</td>
<td>0.70</td>
</tr>
<tr>
<td>2.2.4</td>
<td>moral hazard</td>
<td>0.52</td>
<td>0.48</td>
<td>0.50</td>
</tr>
<tr>
<td>2.2.5</td>
<td>psychophysiological risks</td>
<td>0.70</td>
<td>0.72</td>
<td>0.71</td>
</tr>
</tbody>
</table>

5. Results

Professional stress management in customs authorities is a system of principles and methods that provide the timely diagnostics of the stress factors of the organizational environment and HR measures aimed at preventing occupational stress and emotional burnout of customs officials. Professional stress management is related to the administrative personnel activities at all levels of the customs service.

The development and functioning of the professional stress management strategy should be carried out within the framework of the existing personnel management structure on the basis of the redistribution of official duties and in accordance with the regulations of personnel policy in the field of conflict and professional stress management. The stages and content of measures of the professional stress management strategy for customs officials are presented in Table 3.

In the framework of the professional stress management strategy, it is necessary to build a system of conflict counseling for managers and customs officials.

Conflict counseling is a managerial and socio-psychological method for improving the social interaction of employees in the system of social and labor relationships, as well as the key way to resolve organizational conflicts in an organization [26, 27].

The professional activities of customs officials involve prolonged communication with a large number of people and, therefore, the problem of creating the emotional competence of employees and managers is a current challenge [28]. As part of conflict counseling, it is necessary to conduct training courses aimed at increasing the level of stress-competence and emotional competence of customs officials.

We emphasize the following stress management HR measures that are most significant for the customs authority:
- conducting the training courses aimed at building the stress-competencies of customs officials;
- improving the HR policy of the state body in the field of conflict and occupational stress management;
- planned staff reassignment on the basis of modern approaches to working with staff;
- creating an additional post of a psychologist (to the already existing one) in customs authorities;
- carrying out activities aimed at reducing the stress level of the organizational environment during the reorganization period;
- developing the staff development educational programs on the topic «Building the stress competence of a customs official».

**Table 3. Stages of professional stress management strategy among officials.**

<table>
<thead>
<tr>
<th>№</th>
<th>Stage</th>
<th>Professional stress management strategy</th>
<th>Content of stage activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Setting goals of the professional stress management for officials.</td>
<td>- diagnostics of existing methods, forms and elements of professional stress management strategy in the customs body;</td>
<td>- diagnostics and classification of conflicts;</td>
</tr>
<tr>
<td></td>
<td>Monitoring the existing professional stress management strategy in customs authorities.</td>
<td>- identification, qualitative and quantitative assessment of existing factors in the customs authority that increase the level of occupational stress;</td>
<td>- diagnostics, identification of personnel measures to minimize them;</td>
</tr>
<tr>
<td>2</td>
<td>Development of strategies and principles in the field of professional stress management among officials.</td>
<td>- implementation of stress monitoring.</td>
<td>- implementation of stress monitoring.</td>
</tr>
<tr>
<td>3</td>
<td>Defining the content and structure of the professional stress management strategy</td>
<td>- formulation of principles and strategic directions of stress management;</td>
<td>- development of HR measures for the professional stress management strategy in the customs authority.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- defining the objectives and HR programs for the development and implementation of professional stress management strategy</td>
<td>- development of programs for the prevention of destructive conflicts and stressful situations;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- building the personnel risks profile;</td>
<td>- implementation of monitoring the professional stress management strategy.</td>
</tr>
<tr>
<td>4</td>
<td>Development of a system of motivation for officials</td>
<td>- development of HR measures for the professional stress management strategy among customs officials;</td>
<td>- developing the motivation and incentive methodology for officials;</td>
</tr>
<tr>
<td></td>
<td>Development of regulatory and documentation support for the professional stress management strategy</td>
<td>- creating the educational environment for the building of stress competence of customs managers and officials</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Implementation of the professional stress management strategy for officials</td>
<td>- determination of the regulatory documents for the professional stress management strategy;</td>
<td>- development of related provisions and regulations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- implementation of HR measures for the professional stress management strategy among customs officials;</td>
<td>- building the structure of interaction with managers of structural divisions;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- building the structure of interaction with managers of structural divisions;</td>
<td>- analysis of the results on the functioning the professional stress management strategy in the customs authority.</td>
</tr>
<tr>
<td>6</td>
<td>Monitoring the effectiveness of professional stress management strategies among officials.</td>
<td>- monitoring the professional stress management strategy among officials;</td>
<td>- evaluating the socio-economic effectiveness of the professional stress management strategy among customs officials.</td>
</tr>
</tbody>
</table>

6. Conclusions
The most expected results after the implementation of the proposed recommendations are as follows: reduction in the level of destructive conflict among officials; reduction of destructive collisions leading to labor disruption; increased loyalty of officials; increasing the interest of officials in the
quality of work performed, increasing the level of culture of labor behavior; creating the staff morale in the workplace of the customs authorities.

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8. References
[12] Isayeva E R 2009 Coping-behavior and psychological defence of the individual in conditions of health and illness Monograph (St. Petersburg: Publishing House of St. Petersburg State Medical University) p 33
[16] Oksinoid K E 2009 Stress monitoring for what and how it is performed: Methodology for assessing the level of stressfulness of the organizational environment Kadrovik. Kadrovyi Menagement 5 p 51
Kleiner G B 1986 Production functions: Theory, methods, application (Moscow: Finance and Statistics)


Diligensky N V, Tsapenko M V, Gavrilova A A 2005 Mathematical models of production and economic systems management (Samara: Samara State Technical University)


Mitrofanova A E 2013 The concept of personnel risk management in dealing with the personnel of the organization Competence 3


Berseneva N V Actual problems of the building the professional competence of conflict specialists Modern problems of science and education http://www.science-education.ru/115-12243, free

Zernyshko I A 2005 Conflict counselling as a way to resolve conflicts in an organisation: PhD dissertation in Sociology