Professional education of specialists in customs affairs in higher education institutions of the Russian Federation: trends, quality and partnership

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Abstract. The article considers tendencies and trends in higher education of specialists in customs affairs in higher institutions of the Russian Federation. The authors analyzed and described the international experience of professional education of customs specialists, defined similarities and differences between international and Russian education strategies, indicated unfolding trends in education of local customs specialists such as job-oriented learning methods at all levels of education, e-learning and distance learning opportunities with reference to the digital customs system, counseling and mentoring programs. The future prospects of customs education in Russia are bound to its further integration in the global system to avoid isolated professional education of customs specialists, creating attractive opportunities for foreign students to offer a wide range of skills and competences in customs programs based on platforms of Russian academic institutions as well as taking part in the membership programs in collaboration with the International Network of Customs Universities (INCU). The network approach to the international scientific and educational system integration is based on the growing collaboration between universities providing professional education as well as development of information and telecommunication technologies.

1 Introduction

CUSTOMS authorities regardless of the country play a leading role in providing economic security and performing key functions in pursuing economic policy of the country under market relations.

In the coming decades, customs authorities will face challenges arising from globalization, emerging trade promotion programs and international initiatives, innovative economic transformation, and promoting digital customs processes, which in turn will intensify the training strategies of professional customs personnel [1-4]. Hence, there is a growing need for development of the established system of customs specialists training in

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Russia by identifying trends for its improvement in the context of the political and socio-economic development of the country at the present stage. From our point of view, trends can be identified on the basis of a deep analysis of professional customs specialists training in Russia and abroad, which was the purpose of the study.

2 Materials and methods

The analysis of customs training was carried out on the basis of a set of approaches. A system approach allows considering the training of customs specialists through distinguishing the set of key complex elements and the links between them [5-7]. A competency-based approach is aimed at training a competent specialist capable of solving tasks in customs activities making use of theoretical knowledge and practical skills [8-10]. A technological approach enables educational process management and ensures achievement of objectives through applying educational technologies [11-13]. A comparative approach is aimed at comparing professional training systems in Russia and abroad identifying common and different features as well as reasons why such similarities and differences occur [14, 15].

In order to achieve the goal the authors used a set of complementary research methods: a method of theoretical analysis of scientific and pedagogical sources; a stating method (pedagogical interpretation of the actual experience of customs specialists training, synthesis and systematization of the results); a research synthesis method analyzing system, competency-based, technological, comparative approaches implemented in the study; questionnaire methods and interviews with further analysis of the obtained data; a comparative-historical method (reconstruction and analysis of professional customs training experience); a synthesis method of pedagogical experience provided by various higher education institutions in Russia, studying and analysing curricula, basic professional educational programmes, additional vocational education programmes, educational and methodological materials, internal regulatory documents. The study examined the experience of 198 lecturers, 30 heads of departments, educational and methodological associations and scientific departments that participated in the research.

3 Results

Nowadays there are 83 higher institutions (63 state and 20 private ones) providing education programmes for specialists in Customs Affairs. The education program aimed at training customs specialists had been evolving for centuries before the ‘Customs affairs’ program was finally designed and approved in 2000 qualifying specialists recognized by the Federal Educational Standard of Higher Education. Now the program offers the following education degrees: specialty training programs – a higher education degree, highly qualified personnel training programs – a higher education degree, further professional education programs. It should be pointed out that the customs specialty training program offers one education level (there is no master's degree option). Qualified specialists can enroll in the postgraduate course for 08.00.05 Economics and national economy management program. Further professional training is provided through advanced training courses, retraining and apprenticeship programs. The 'Customs affairs' specialty is interconnected with economics as a subject doubting its juridical aspect.

The duration of the course in higher institutions is a 5-year full time program, a 6 year mixed attendance program and 6 year extramural program.

All degree programs provide e-learning and distant learning opportunities.

- to build a wide range of professional competence covering all levels of customs personnel training;
- to create an educational environment, covering all levels of customs personnel training.
- to use up-to-date profession-oriented education approaches in order to develop the required competence;
- to develop computer literacy skills and digital trust environment in customs services;
- to implement an individual development plan in a customs carrier;
- to certify teachers and lecturers engaging and providing expertise of leading companies and state institutions of the Russian Federation, outlining an individual development plan;
- to engage companies and communities in the digital economy (digital customs) education process including distance mode.

The implementation of the above mentioned program depends on a number of external and internal factors. The external factors include: 1) the effects of the Russian Federation’s membership in the WTO, higher education statutory and regulatory requirements, the Federal Customs Service development etc.; 2) the effect produced by amendments to qualification standards applied to customs specialists as well as changes on the labor market and employment sector and contingencies affecting the Federal Educational Standard of Higher Education and other professional standards.

The internal factors include: the principle curriculum content and further education curriculum content; methodological qualification support of academic staff; logistics support: job oriented technologies applied to train customs personnel; applicants’ level of attainment; postgraduates’ and trainees’ psychological willingness to self-development in their professional activities in order to fulfil their individual development plan.

Customs educational systems are available in many developed countries of the world. However, the Customs specialty is not necessarily offered as a separate major or a training...
program to pursue. Nevertheless, it is available as ongoing professional education for customs officers or separate customs training programs.

The analysis showed that most of the above-mentioned countries have developed a system of professional training of customs specialists, including higher education – bachelor's degree, higher education – master's degree, higher education – doctoral studies, specialized programs and courses. That is the main difference from the Russian system resulting in a number of particular features in the organization and implementation of professional training. At the same time, customs affairs as a major is related to economics.

It should be emphasized that professional training of customs personnel is defined by the following aspects: firstly, by peculiarities of national customs regulations, secondly, by the condition of the customs system. For example, universities in Canada offer a fundamental professional education, while universities in the USA focus on elective courses of specialization; South Korean universities design their programs ranging from basic to professional levels; the United Arab Emirates’ universities focus on modern technologies in education; Macedonia focuses on ongoing learning that allows outlining an individual development plan; France prioritizes eLearning and mobile development units; Australia focuses on inviting top academics and experts thus increasing demand for education; Germany puts much importance on developing, improving and upgrading educational programs: the Czech Republic prioritizes the national language in professional training programs; Belgium is concentrated on combining theory and practice; Norway develops online courses based on expertise of leading companies.

The next difference is connected with the outcomes and evaluation of customs training programs. In the Russian Federation they are defined by the Federal Educational Standard of Higher Education for 38.05.02 “Customs Affairs” specialty (a specialist degree), which is designed using a competency based approach and includes a set of soft, general professional and professional skills.

It should be pointed out that educational institutions in many countries aim to get their customs training programs recognized by the World Customs Organization so that the programs will meet the WTO standards and requirements in compliance with their updates and upgrades.

Despite the differences, there are a number of similarities. The most significant of them are as follows.

Both in Russia and abroad customs personnel training is based on the principle of ongoing and lifelong learning, incorporated and integrated in the global network and adjusted to local and international changes and regulation amendments. The above mentioned aspects influence the number of disciplines included in the curriculum and allow taking into consideration the current situation and react proactively to future changes.

Another common feature is the idea of acquiring the following knowledge and skills: 1) personal qualities responsible for effectiveness in customs activities such as, independence, adaptability, interpersonal skills, resilience and stress resistance etc. 2) knowledge and skills necessary to manage risks, express ideas and knowledge both orally and in writing, use up-to-date telecommunication technologies, make sound judgments and responsible decisions etc.

Globally, modern systems of professional customs training are oriented towards eLearning and applying distance technologies to provide various levels of education, thus, allowing to create individual development plan.

The idea of creating a common education space in customs sector is considered as a problem-solving strategy to improve the quality of customs education and give access to educational resources globally. Consequently, much importance is placed on learning foreign languages.
Among other common features we can distinguish using simulation-based training software which simulates real-time working situations; independent work through provided consulting; physical fitness is also one of the core training activities etc.

The comparative analysis justified the importance of developing two new degree programs (specialties) for customs personnel training in the Russian Federation along with the existing ones: customs payment and foreign exchange regulation, information technology for customs, customs logistics, international customs cooperation, customs control management, customs management, commodity research and expertise for customs etc. The new degree programs are digital customs (simplification in foreign trade on the basis of information technologies) and international diplomacy for customs. One the one hand, launching the above-mentioned specialties contributes to the country’s economic security and, on the other hand, prioritizes promotion of trade, services and modern technologies.

The degree program in Digital Customs is aimed at providing customs personnel with the necessary skills and knowledge to operate successfully with digital customs software powered by digital economy. In the near future 100% of customs declaration will be managed by digital technologies that is why customs agencies are increasingly embracing automatization and digitalization as their main objectives. The deployment of digital technologies will cut red tape and contribute to trade facilitation.

In our point of view the qualification in Digital Customs must provide students with computer literacy, ability to outline an individual digital development plan and engage them in the digital trust environment. Besides, it is important to introduce changes in the requirements of the Federal Educational Standard of Higher Education for 38.05.02 Customs qualification program (a specialist degree) in order to include professional competence connected to digitalization and automatization of customs administration activities.

The degree in Diplomacy for Customs aims to train highly-qualified personnel for customs authorities and support units management as well as represent the Russian Federation worldwide.

First of all, it should be pointed out that modern diplomacy for customs is correlated with economic diplomacy offering tools to pursue a state’s foreign policy through non-military activities, approaches and measures as applicable.

In the recent years the international system of the Russian Federal Customs Service has been expanded to find balanced solutions to eliminate customs barriers in foreign trade and enhance the necessary security and control. Extending international cooperation on global customs platforms will make it possible to find better solutions.

In this context, the role of customs diplomacy is related to the improvement of mutual understanding between customs services of different countries as well as to the promotion of trade and economic relations with other states. Customs diplomacy is developing in the context of globalization of the world economy, as well as the large-scale development of international trade, which requires the elimination of tariffs and non-tariff barriers and the simplification of trade and customs procedures. Those activities are impossible without the active participation of representatives of customs services. At the same time, it is crucially important to maintain a high level of control over international trade and transport transactions. In addition, in today’s international reality, the interests of states in the development of international trade are combined with increased attention to national security issues, which makes the participation of customs and border services in diplomatic activities relevant, as these services ensure suppressing the cross-border spread of illegal
and anti-social activities contributing to the development of legitimate and fair international trade.

Today the State Customs Services are authorized to represent both their own interests and interests of the state worldwide, including different international organisations.

Customs diplomacy uses the following methods: multilateral customs; preventive diplomacy; communication through dialogues at different levels; high-level negotiations; diplomatic congresses, summits; bilateral and multilateral negotiations. These practices are adopted primarily due to the transformation from a hard bargaining strategy, where each participant acts in their own interests and claims their negotiation position first, to the concept of joint analysis of the problem in order to achieve mutual satisfaction pursuing a negotiation interests strategy.

The definition of Customs Diplomacy is referred to the art of conducting negotiations so as to prevent or manage conflicts, look for solutions, expand and enhance international cooperation.

Customs Diplomacy as a specialty will focus on customs simplification processes. It is expected that the specialization in “Customs Diplomacy” will guide students in the issues of simplification of foreign trade, simplification of logistics processes, digitization of public administration, system of requirements to descriptions of competences of the digital economy, modernization of the description of competences, etc.

The analysis of the international experience and the assessment of customs education in Russia allowed pointing out the following trends in customs personnel training:

- life-long learning and personal improvement at all levels of Customs training;
- using eLearning and blended learning opportunities;
- providing pedagogical guidance and support for professional training;
- integration into the world customs education space.

**Trend 1.** Life-learning and continuous personal improvement at all levels of training a customs specialist can be achieved through professionally oriented methods of education applied at all levels of training.

This in turn involves designing a discipline-specific (module) learning technology; selecting the most effective teaching methods used at all levels of customs training (as a component of designing a training technology). We will regard a training technology as a combination of contents, methods, tools and forms of training and control allowing to achieve the pursued goal. Such a definition was the result of an analysis of scientific and is based on the understanding of technology as an organizational and methodological tool of the pedagogical process [16]. That definition came as a result of analyzing some scientific and pedagogical papers and is based on the concept regarding a technology as an organizational and methodological tool of the pedagogical process [16].

We consider designing a training technology for a discipline (module) in terms of the modern pedagogical science as a configuration of learning situations comprising possible professional experience and forecasting its results [17-20].

In view of the foregoing, designing a training technology involves selection of training content, forms of the training process organization, selection of methods, means of training, forms of control.

Selection of training content includes the following elements: selection of the most relevant materials, training material structuring, selection of examples and evidence in accordance with a degree program; selection of tasks and assignments aimed at building competence.
Each element of the training content selection corresponds to a particular training style: a lecture and a seminar correspond to the selection of the most relevant material, a seminar and colloquium refer to training material structuring, a laboratory class refers to the selection of examples and evidence in accordance with a degree program, the selection of tasks and assignments aimed at building competence correspond to practicals. It should be noted that a teacher engaged in designing a training technology for an academic discipline (module) can expand the list of these teaching styles. We offer a certain template with a making change option depending on the particular features of an educational discipline (module).

After that it is required to identify the most appropriate learning styles to implement the elements of training content selection.

The next step is to choose among learning (mediating) tools (material or ideal/conceptual) and instructional strategies to organize learning activities, control and assessment (teacher-centered learning, cooperative learning, independent learning).

All the components considered are interconnected influencing one another and, ultimately, the outcome.

This approach to a learning technology design aims to:
- boost students’ mental performance: from reproduction to interpretation and creativity;
- optimize learning performance through building a positive learning environment;
- stimulate learning activities through mobilizing and exploiting participants’ personal resources.

The survey of 198 Russian university lecturers showed that choosing among teaching methods in the context of the training technology design process is considered the most challenging task for 86% of respondents. The analysis of the responses allowed us to select and highlight the following classification of training methods used for training customs personnel: intensive, situation analysis for active training, brainstorming, active training, project creation. The methods were also classified according to degrees where they are applied. (See Table 1).

### Table 1. Classification of training methods applied according to the types of degrees in training customs personnel.

<table>
<thead>
<tr>
<th>A higher education degree – specialist</th>
<th>A higher education degree – training highly-qualified personnel</th>
<th>Further professional education</th>
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<tr>
<td>- the portfolio method</td>
<td>- Active learning strategies such as, work-shops, interactive workshop activities.</td>
<td>- intensive learning methods: active lecturing;</td>
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<tr>
<td>- Active learning strategies such as, work-shops, interactive workshop activities.</td>
<td>- intensive learning methods: active lecturing;</td>
<td>discussion-style seminar format; buzz groups; labyrinth teaching activities.</td>
</tr>
<tr>
<td>- intensive learning methods: active lecturing; discussion-style seminar format, 3D technology; buzz groups; mind-maps, a file with incoming correspondence, labyrinth teaching activities.</td>
<td>discussion-style seminar format, 3D technology; buzz groups; mind-maps, a file with incoming correspondence, labyrinth teaching activities.</td>
<td>- Situation analysis methods for active learning strategies: analyzing real-life situations;</td>
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<tr>
<td>- Situation analysis methods for active learning strategies: analyzing real-life situations; case-study teaching methods;</td>
<td>- Situation analysis methods for active learning strategies: analyzing real-life situations; case-study teaching methods; critical incident techniques; role-playing games.</td>
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critical incident techniques; role-playing games.
- Brainstorming: combined brainstorming; individual brainstorming; brainstorming sessions on a whiteboard; solo brainstorming; visual brainstorming

The results of the survey of 198 lecturers who participated in the study demonstrate that the main problem on the way of development and implementation of technology in education for a discipline (module) is the problem of achieving special knowledge in this field, as most of them do not see any difference between methodology and educational technology. While methodology is based on a set of recommendations for teachers to organize and conduct the educational process, educational technology refers to organized, purposeful and deliberate influence and impact on the educational process, the substantive technique of its implementation, a clear description of learning objectives and achievements, a dynamic and student-oriented, outcome-based educational process.

**Trend 2.** Using eLearning and blended learning opportunities.

The Federal Educational Standard of Higher Education for a specialist’s degree in the specialty “Customs Affairs” (para. 3.4) provides for eLearning and distant learning opportunities. For this purpose electronic information and educational environment of a higher institution is being developed. Electronic information and educational environment allows its users:

- to get access to curricula, training programs for disciplines (modules), practices, electronic library systems and electronic educational resources specified in training programs;
- to record the educational process, including academic achievements students represent upon accomplishment of the basic professional education program and further professional education programs;
- to carry out all types of education activities, to evaluate students’ performance;
- to build a student’s electronic portfolio, including the stored collection of student’s papers, tests, teachers’ reviews and evaluations;
- to organize interaction between participants of the educational process, including synchronous and (or) asynchronous interaction via Internet.

It should be pointed out that maintenance of the electronic information and education system requires facilities and resources including IT facilities and teachers’ digital literacy skills.

As a theoretical basis for the preparation and implementation of educational processes in the electronic information and educational system we refer to an electronic pedagogy (“a new trend in the pedagogical science dealing with the system of open education. It studies methods, types of training instruction and education in information and educational environments”) [21].

As today training customs personnel is impossible without information technologies, electronic pedagogy allows studying, describing and forecasting processes in ICT environments. The object of electronic pedagogy is education, its subject is educational processes taking place in ICT environments (purpose, task, content of education, subjects of education, methods, forms, instruction, tools).
The terms and definitions of this branch of pedagogy include: distance learning, eLearning, online education, distance teaching, tutor, online classes, online textbooks, eTextbooks, personal learning environment etc.

Having studied the development of higher customs education in Russian universities, we understand that once enrolled in training programs students have access to educational resources and services provided by the educational organization that allows them not only to consume them, but also to generate. Thus, learning “evolves from transmitting information and knowledge to generating information and knowledge” [22].

At the same time, along with the traditional principles of learning, such as explicitness, visibility, systematic and consistency, alignment, consciousness and activity, resilience, accessibility, relationship between theory and practice, the principle of problematcity there are new specific ones, such as interactivity, initial knowledge, identification, pedagogical effectiveness of implementing information and communication technologies etc.

Consequently, electronic pedagogy extends the list of existing approaches to education by highlighting a connectivist approach according to which “learning is considered as the process of creating a network whose nodes and connections are external entities, i.e. people, organizations, libraries, sites, books, magazines, databases, or any other source of information” [23].

In Russian higher institutions distance education is used for training customs personnel receiving basic education (it provides students with online information resources, including network resources): virtual libraries, databases, consulting services, electronic manuals, etc.), and further education (students have access to distance seminars, conferences, postgraduate activities, competitions etc.).

Trend 3. Providing pedagogical guidance and support for customs specialists professional training. In terms of professional training pedagogical guidance involves organized cooperation of the participants of educational process aimed at taking decisions and solving problems to help students, postgraduates and trainees effectively achieve their ultimate goals in developing competence as well as instilling professional values based on professional ethics of customs specialists [24-27].

In accordance with the given characteristics pedagogical guidance can comprise the following elements: a student regarded as the subject of educational process, a teacher/lecturer regarded as the subject of educational process, content of professional training, task development for the subjects of educational process, supervision of a student’s learning cognitive activity.

Different levels of customs specialists training can require different types of pedagogical guidance and support.

First training level (a student) may require assistance in:
- adaptation to educational process and explicit academic requirements;
- building professional qualities necessary for customs authorities working in RF, developing professional values, mindfulness and awareness;
- outlining individual development plan.

Second training level (a postgraduate degree) may require assistance in:
- navigating research requirements;
- developing and conducting scientific research;
- managing personal resources.

Third training level (a trainee) may require assistance in:
- navigating further professional education requirements;
identifying and clarifying the system of professional values;
outlining individual development plan.

Considering the general practice of customs authorities in RF we can define principles of pedagogical guidance applied throughout all training programs as follows:

- orientation on customs services practised in Russia (their traditions, image, symbols of Russian Customs authorities regarded as an integral part of professional mindset, systems of professional values, professional ethics and motivation);
- self-reflection (involves reflection on life and professional experience (a second and third level of professional training) and search for personal values in professional activity encouraged by designing a professional development plan);
- sustainability (involves consistent and timely assistance in personal and professional development offered to students);
- personal orientation (creating facilities for assistance and support based on students’ potential);
- proactivity (ensures proactive and professional attitudes, communication with experienced customs experts, professional and personal development planning).

Based on a number of research [24, 26, 27] and analysis of pedagogical guidance practised in Russian higher institutions specialized in training customs personnel there were some pedagogical guidance techniques pointed out: selection of training methods in the context of designing a training technology for a discipline (module); relevant training content; organizing students’ self study; collaborative and cooperative learning; subject-subject relationships; tutorials; coordinated decision making.

Following the considered trends in education of customs specialists there is a growing need in revising special aspects of training and pedagogical guidance.

Trend 4. Integration into the world customs educational space. The system of higher customs education is meant to keep pace with the state’s economic development, moreover, it must also stay one step ahead to provide future customs personnel with relevant education.

Consequently, the idea of creating a common educational space within the customs sector should be considered as an effective solution towards education quality assurance and access to the bank of educational resources and materials on the major in Customs services worldwide. In turn, it will require designing a standardized system for professional development of customs specialists to be implemented on the basis of WCO.

It should be noted that the majority of Russian Institutions providing training for customs specialists establish international relations promoting integration in the global network of educational institutions, for example, INCU.

In Russia the integration into the international scientific and educational space is based on a network approach. Besides, the international relations strategy in Russian universities is determined by the goals and objectives pursued by the Federal Customs Service of the Russian Federation, its participation in the activities serving the interests of the State in the field of global economy and trade in different transnational associations such as WCO, APEC, ASEAN, etc., as well as international organizations aimed at greater integration with countries sharing common interests and (or) common borders, having the similar level of economic development: The Shanghai Cooperation Organization, The Eurasian Customs Union, the Commonwealth of Independent States, etc.

4 Conclusion
The implementation of the considered trends in professional training calls for a number of measures. Firstly, developing in-house higher education regulations, such as provisions, instructional guidelines, workshops etc., which will allow academic teaching staff to develop trends in institutions; secondly, providing resources to promote trends; thirdly, organizing pedagogical excellence programs covering all aspects of training.

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