Future competencies and personnel training for customs authorities: regional aspect

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Abstract. The educational subsystem is recognized as the most important driving force of regional socio-economic development. The policy of the Government of the Tyumen Region is aimed at promoting the development of international relations, expanding foreign economic relations, and popularizing export activities. For the regional economy development through the foreign economic activity sphere, we need personnel who meet the needs of regional employers, meet modern requirements for the specialist training quality, and have the competencies of the future. A special place in the foreign economic activity infrastructure is assigned to customs authorities. It is noted that modern strategic trends in the development of the customs service of Russia require the modernization of the educational process of training personnel for this area. The issues of a competence model formation are considered on the example of training a customs specialist at Tyumen State University, in which the emphasis is shifted to new groups of competencies, relationship of individual competencies, and synergetic effect of their interaction.

1 Introduction

The socio-economic development of the region is closely connected with the provision of the regional economy with highly qualified personnel capable of adapting as quickly as possible to changes in the external environment in the conditions of uncertainty of the VUCA and BANI reality concepts regarding future professions, and the integration of education and the regional labor market. The research focus of foreign and Russian authors in the last decade is the analysis of the role and contribution of universities to regional development [1].

Currently, the Tyumen region is in the top of various ratings – in terms of investments in fixed assets, average per capita income, human development index, commissioning of the total area of residential buildings, digitalization, and other indicators. In addition, the Tyumen region is an active participant in foreign trade and the international division of labor, demonstrates a high level of the regional economy openness to foreign markets. The foreign trade geography is characterized by stability and diversity. Customs authorities play a significant role in promoting the development of foreign trade activities and foreign economic relations of the region, considering its territorial and sectoral characteristics.

It should be noted that currently strategic trends in the development of the customs service of Russia are associated with the transfer of processes to the "artificial intelligence" format,

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which will require appropriate development of the human potential of customs authorities and will lead both to the dynamics of educational programs for students and modernization of the entire educational process system with the possibility of permanent individual development of each employee [2]. Training of personnel for the customs sphere, as well as for companies engaged in foreign economic activity, in the Tyumen region is carried out by the Tyumen State University.

The activities of customs authorities are influenced by integration processes in the Eurasian space, the expansion of cooperation with international partners, therefore, there is a need to form common approaches and standards for the training of customs specialists, further education harmonization in the customs sphere. International professional standards for customs services were developed by the World Customs Organization (hereinafter referred to as the WCO) within the framework of the Partnership in Customs Academic Research and Development (PICARD) program, which was officially launched in 2006. A number of Russian universities already have WCO accredited educational programs in the field of customs administration [3-5].

The training of customs personnel of a new level is connected with the development, introduction, and implementation of the Federal State Educational Standard of Higher Education (FSES HE) of a new generation in the specialty "Customs", which should correspond to modern trends in both the development of customs administration and higher education. In turn, all modern versions of higher education educational standards in Russia are focused on the implementation of the competence approach. In this regard, research questions arise: what competencies should a future customs specialist have, is it possible to determine the optimal composition of competencies that meet modern realities.

2 Materials and Methods

The research is based on the complex use of theoretical and empirical methods. The main research methods are comparative analysis, synthesis and generalization of the regulatory framework, scientific papers describing the theory and practice of the competence approach. A comparative analysis of the educational programs of higher educational institutions of Russia in the specialty "Customs" was carried out to study the formation of a pool of competencies of graduates for professional activities. Logical and graphical methods were also used. Empirical data were obtained during a semi-formalized expert interview. During the interview, the experts were asked to answer an open question: "What competencies, in your opinion, should a future customs specialist receive during training for the successful implementation of strategic tasks for the development of the customs service of Russia?". The survey was attended by 22 experts – potential representatives of the employer of the customs and near-customs sphere of the Tyumen region. When selecting candidates for experts, gender and age characteristics, work experience in the customs sphere or in the field of foreign economic activity, the position held, work experience in the field of training customs specialists were considered.

3 Research Results and Discussion

Changes of socio-economic and political nature occurring in the modern world cause the need to formulate new requirements for the quality of training of future specialists, which in turn causes the need to form a competence model in which the emphasis shifts to new groups of competencies — "soft skills", "digital skills", "self skills". The variety of Russian and foreign publications reveal, on the one hand, the continuing interest in the study of competencies and the competence approach, on the other hand, the inconsistency of

approaches to the identification and characterization of competencies [6-12]. The development of ideas about the competence approach was formed in parallel both in pedagogical science and in the business environment. The analysis of these independent approaches shows their significant difference at the initial stage of development and gradual convergence in the future. Nevertheless, the complexity of understanding associated with the incompatibility of the business and educational environment terminology still exists.

Many years of research in various fields of knowledge have generated many variants of the "competence" definition, but there has not been an unambiguous interpretation. Most often, the authors endow "competence" with the following constituent elements: knowledge, skills, abilities, attitudes, motives, personal qualities [13-14]. The changing attitude to the results of vocational education is also reflected in definitions; thus, the availability of knowledge and skills of future specialists for activities in a specific professional situation is complemented by a willingness to act in a situation of uncertainty [15], the ability to update accumulated knowledge and use it at the right time in the implementation of professional functions [16], as well as the simultaneous possession of cross-cutting competencies [17].

The training of future customs specialists on the basis of the new (third) generation FSES HE is carried out considering the formation of universal (UC), general professional (GPC), and professional (PC) competencies. Universal and general professional competencies are set by the educational standard, and the formation of professional competencies is transferred to the jurisdiction of the educational organization.

Moreover, universal competencies are a novel of the updated FHES HE of the third generation and its subsequent versions for all areas of employee training with higher education. The terminological understanding of these competencies was first formulated by D. Mertens in the 70s of the last century [14]. The concept of key competencies caused a wide resonance in 1996 at the symposium "Key Competencies for Europe" in Bern, when discussing the role of key competencies, the idea of unified universal competencies for all areas of training arose [27]. W. Dreyer, U. Hößler defined "key qualifications" as knowledge, skills, preferences, and values that have been used for a relatively long time to solve social problems. These skills and attitudes go beyond professional skills and knowledge, and they persist throughout life [18]. Key competencies in the works of Russian researchers [14, 16, 19, 20] are identified with general, basic universal, and meta-subject competencies. Given the variety of formulations and the absence of a generally accepted list of them suitable for education, employers, and students, it is possible to identify the most common components: the ability to develop an algorithm of actions in uncertain conditions, adaptation, and mobility. The development of universal skills will help to work with a large amount of information, find solutions in non-standard situations, and resolve conflicts. These are not abstract skills, they are the successful career skills, which is confirmed by the growing interest of employers. The development of universal skills is not just a trend in education, it is a universally recognized reality both in the business environment and in the field of education.

Currently, the task of both universal and general professional competencies is related to the provision of disciplines (modules) and practices related to the mandatory part of the training program. In the higher education standards, universal competencies are aimed at developing the skills and abilities of systematic and critical thinking, teamwork, project development and implementation, the use of modern communication technologies, taking care of your health and leading a healthy lifestyle, etc. In fact, we are talking about supraprofessional competencies or "soft skills" necessary for every specialist in the conditions of the world and society digitalization. For customs specialists, the list of universal skills is relatively stable, and the hierarchy of their importance is changeable. For productive work, an employee must have the skills to work with people, the ability to concentrate, attentiveness, self-control.

As it was noted earlier, the definition of a set of professional competencies is assigned to a higher educational institution. In previous versions of the FSES HE for the specialty "Customs", they were set standardly and this list included 41 professional competencies. The author's analysis of the educational programs of some Russian universities implementing the specialty "Customs" allowed to determine that the number of professional competencies varies from 3 to 15. Most often, educational organizations establish no more than 5 such competencies. In the Tyumen State University, a future customs specialist masters the following professional competencies, which have received a positive assessment of the Tyumen Customs:

- 1. Capable of carrying out activities related to the performance of customs operations and customs control, the application of customs procedures and other activities for customs purposes.
- 2. Capable of ensuring compliance with customs and tariff regulation measures, prohibitions and restrictions, measures to protect the internal market in respect of goods transported across the customs border of the Eurasian Economic Union.
 - 3. Capable of performing customs audit.
- 4. Capable of protecting the national security of the member states of the Eurasian Economic Union.

Thus, professional competencies in the FSES HE will be correlated with "hard skills". For a long time, "hard skills" dominated the list of skills in the world educational space. But then, thanks to the efforts of scientists and under the influence of the modified labor market needs regarding the competence of specialists, "soft skills" took a firm place on the agenda. Countries that occupy leading positions in the economy, technology, and personal communications have been transforming their educational systems in this direction for several years.

A new global track related to the digital transformation of the economy, business, social sphere and everyday life actualizes the attention of the business community to "digital skills", namely, to skills related to the creation of digital systems and information management, the formation, translation, and retransmission of content, etc. [21,22]. Digital competencies are also becoming important for the educational environment [23,24]. The training of a customs specialist is currently focused on performing a certain range of professional tasks, but the main trend in the development of customs, designated as "intelligent customs", will require consideration of digital competencies when forming a competence model.

The introduction of competencies of a separate group of "self skills" to the typology is due to the fact that the dichotomy of "hard skills" – "soft skills" does not make it possible to catch innovative skills of the transition period, namely, self-care skills, awareness of their own needs and interests, the ability to understand their feelings, know their resources and optimally use them. It should be noted that in the Tyumen State University, the development of such skills is facilitated by an educational model based on the idea of individual educational trajectories.

To what extent has the idea of the necessary competencies to work in the customs authorities been formed in the most professional environment today? The range of required competencies noted by the expert survey participants is shown in Figure 1. The "top three" are competencies related to professional activity, security, and confidentiality, information and data management, and organization of communication in the digital environment.

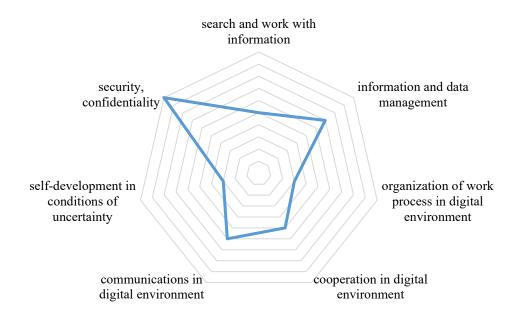


Fig. 1. Ideas about the competencies of a customs specialist in a professional environment

Thus, is the optimal composition of competencies possible, what should be their specific weight in the educational standard implementation and what criteria should the model of successful implementation of the pool of competencies meet? The conceptual coordinates of the competence approach in the process of training a customs specialist were considered in [25, 26]. In our opinion, a competency model that meets the following criteria will contribute to improving the efficiency and effectiveness of the FSES HE:

- adaptability in conditions of total uncertainty;
- possibility of positive synergy of elements;
- mobility of structural elements of the model;
- integrity and consistency of competence indicators;
- ranking by importance of elements.

In an unstable and constantly changing world with many uncertainties, the demand for future competencies (FC) or "future skills" is being formed, the status of which is only being determined today. The evolution of the competence model is possible by strengthening the interaction of all groups of competencies with the addition of the group of future competences, which means the supposed unstable competencies, the list of which can be formulated for a short time. Then they either leave due to lack of demand, or are transformed into groups of GPC, UC, PC. Based on this, a universal balanced competence model is proposed (Figure 2). The question of the balance between these competence groups in the training of specialists and the mechanism for introducing "future skills" into the educational process remains open.

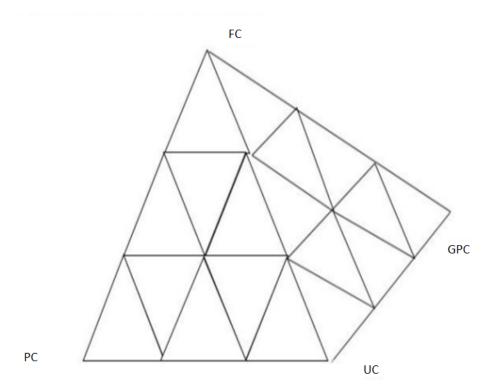


Fig. 2. Universal balanced competence model

The model proposed by us is the basis for the formation of advanced competencies that are in demand within a certain region. The advanced training system for the region will reduce the gap between the level of training and market demands, overcoming the lag of the training system for the region from the labor market requirements, will align the speed of updating educational programs with the technology development pace, will resolve the difficulties of interpreting professional standards to reduce the inconsistencies between the existing skills of university graduates and the employer needs.

4 Conclusions

New global challenges require a rethinking of the factors of the development of the region's activities. Currently, the customs authorities face difficult tasks, so it is necessary to clearly understand in which direction it is necessary to improve education in the field of customs. Improving the training of future specialists for customs authorities is possible only with the development of the following groups of competencies: "future skills", "digital skills", and "self skills". The law of synergy is triggered – a complex dynamic system is more efficient and effective due to the optimal combination of various elements. The competence paradigm of training customs specialists with a set of competencies for the future, ready to adapt to a dynamic environment, capable of constant updating of knowledge will ultimately contribute to the socio-economic and foreign economic development of the region. The vector of prospective requests is the direction for the formation and development of competencies.

References

- 1. M. Baryshnikova, E. Vashurina, E. Sharykina, Yu. Sergeev, I. Chinnova, Educational Studies 1, 8-43 (2019)
- 2. V.V. Kovarda, R.A. Laptev, E.A. Bolycheva, E.V. Bobyreva, Eurasian Scientific Journal, 2(13), (2021)
- 3. V.V. Gorchakov, V.I. Dyakov, V.P. Smirnov, Customs policy of Russia in the Far East **2 (87)**, 77-91 (2019)
- 4. V. E. Popova, Academic Bulletin of the Rostov branch of the Russian Customs Academy 4 (37), 120-126 (2019)
- 5. S.G. Rzayeva, T.P. Rodionova, Training of a customs specialist abroad, *Education*. *Culture. Society. Collection of selected articles based on the materials of the International Scientific Conference*. St. Petersburg, 68-69 (2020)
- 6. P. Klaus, The hard truth about soft skills: Workplace Lessons Smart People Wish They'd Learned Sooner, (New York: Harper Collins Publishers, 2007)
- 7. J.Z. Sonmez, Soft Skills: The Software Developer's Life Manual. Shelter Island, (New York, Manning Publications Co., 2014)
- 8. N.L. Mikidenko, S.P. Storozheva, Business. Education. Law **4 (41)**, 366-372 (2017)
- 9. O.L. Chulanova, Competence-based personnel management (Moscow, INFRA-M, 2017)
- G. Kumar, V. Sharma, Emotional Intelligence through Soft Skills for Employability, Proceedings of International Conference on Advancements in Computing & Management (ICACM) (2019)
- 11. H. Chaibate, et. al., International Journal of Higher Education 9 (1), 142-152 (2020)
- 12. O. D. Medvedeva, Siberian Pedagogical Journal, 3, 67-76 (2021)
- 13. F.E. Weinert, Concepts of competence (Contribution within the OECD project Definition and selection of competencies: Theoretical and conceptual foundations (DeSeCo)). Neuchatel: DeSeCo (1999)
- 14. I.A. Zimnyaya, Experiment and innovation in school **2**, 7-14 (2009)
- 15. I.S. Sergeev, V.I. Blinov, How to implement a competence-based approach in the classroom and in extracurricular activities (Moscow: ARKTI, 2007)
- 16. E. F. Zeer, D.P Zavodchikov, Higher education in Russia, 11, 39-45 (2007)
- 17. E.F. Zeer, O.V. Krezhevskikh, The Education and Science Journal 24 (4), 11-39 (2022)
- 18. W. Dreyer, U. (Hg.) Hößler, Perspektiven interkultureller Kompetenz, Göttingen. Vandenhoeck & Ruprecht (2011)
- 19. V.M. Ostapenko, V.A. Shkitin and others, Smolensk Medical Almanac 2, 18-23 (2017)
- 20. E.I. Kazakova, I.Yu. Tarkhanova, Yaroslavl Pedagogical Bulletin 5, 127-135 (2018)
- 21. O.V. Kalimullina, I.V. Trotsenko, Open Education 22 (3), 61-73 2018
- 22. Yu.A. Masalova, University Management: Practice and Analysis 25 (3), 33-44 (2021)
- 23. V.L. Nazarov, D.V. Zherdev, N. V. Averbukh, The Education and Science **23** (1), 156-201 (2021)
- 24. E.F. Zeer, N.G. Tserkovnikova, V.S. Tretyakova, The Education and Science Journal, 23 (6), 153-184 (2021)
- 25. N.B. Alekseeva, I.G. Valyaev, Academic Bulletin of the Rostov branch of the Russian Customs Academy, **2** (13), 112-119 (2012)

- 26. D.G. Korovyakovsky, Global scientific potential **2 (95)**, 95-97 (2019)
 - 27. Council of Europe: Symposium on "Key Competencies for Europe": Doc. DECS/SC/Sec. (96)43 (Bern, 1996)