The article discusses the issues of modern electronic technologies implementation in managing integrated processes in the customs and logistics services sector in Ukraine. It is argued that collection and processing of large amounts of information are hardly possible without the use of latest information technology advancements. It has been verified that to operate effectively, the "Electronic Customs" should involve close interaction between all its subsystems, such as electronic declaration; electronic document management; risk analysis and risk management; transit control delivery; single interdepartmental automated system for collecting, storing and processing information; implementation of fully automated government control; unified database of regulatory and reference documentation used for customs purposes; information support for audit and law enforcement activities. The research findings have revealed a number of benefits of using the electronic declaration pattern, in particular, it contributes to boosting trade, reducing the time period for customs control, eliminating of subjective factors while handling customs procedures through the use of online prior notification and preliminary electronic customs declaration in the frameworks of customs clearance of goods and customs documents and goods delivery. Ultimately, building a multifunctional integrated system of "Electronic Customs" is focused towards better facilitating and enhancing the customs units performances by speeding up customs control and customs clearance procedures, improving the public service quality in the area government customs regulation, mitigating the risk of any illegal actions and corruption along with ensuring and enhancing the customs services security in Ukraine, contributing to further development, adaptation and successful harmonization of information systems of the State Customs Service of Ukraine to the European Union standards and good practice.

Keywords: technologies; management; electronic customs; customs and logistics services.
товарів. Встановлено, створення багатофункціональної комплексної системи «Електронна митниця» сприятиме зміцненню та поліпшенню роботи митних підрозділів шляхом прискорення процедур митного контролю та митного оформлення, покращення рівня послуг, що надаються державою в митній сфері, обмеженню можливості здійснення протиправних та корупційних дій, забезпечуватиме покращення митної безпеки України, поліпшуватиме подальший розвиток та прискорюватиме адаптацію інформаційних систем Держмитслужби України до стандартів Європейського Союзу.

Ключові слова: технології; управління; електронна митниця; митно-логістичне обслуговування.

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ТЕХНОЛОГІЇ УПРАВЛІННЯ РАЗВИТИЕМ ІНТЕГРИРОВАННЫХ ПРОЦЕССОВ ТАМОЖЕННО-ЛОГІСТИЧНОГО ОБСЛУГОВУВАННЯ
В статті Ісследовано внедрение современных электронных технологий в управление интегрированными процессами таможенно-логистического обслуживания Украины. Большие объёмы информации при осуществлении процессов таможенно-логистического обслуживания недоступны без применения информационных технологий. "Электронная таможня" должна сочетать в себе такие подсистемы, как электронное декларирование; электронный документооборот; анализ рисков и управление ими; контроль за транзитом; единую межведомственную автоматизированную систему сбора, сохранения и обработки информации; осуществлять все виды автоматизированного государственного контроля; должна быть унифицированная база нормативных и справочных документов, которые используются в таможенных целях; информационное обеспечение аудита и правоохранительной деятельности. Электронное декларирование, как показали наши исследования, имеет следующие преимущества – это ускорение товарооборота, сокращение времени на осуществление таможенного контроля, исключение субъективных факторов при осуществлении таможенных процедур путём осуществления таможенного оформления товаров и документов контроля за доставкой товаров. Таким образом, создание многофункциональной комплексной системы "Электронная таможня" будет способствовать укреплению работы таможенных подразделений путём ускорения процедур таможенного контроля и таможенного оформления, улучшению уровня услуг, которые предоставляются государством в таможенной сфере, ограничению возможности осуществления противоправных и коррупционных действий, укреплению таможенной безопасности Украины, улучшит дальнейшее развитие и ускорит адаптацию информационных систем Гостаможслужбы Украины к стандартам Европейского Союза.

Ключевые слова: технологии; управление; электронная таможня; таможенно-логистичное обслуживание.

Formulation of the problem. The strategy of development of society in the world clearly shows that victories are achieved by those structures that accumulate and skillfully manage the available information. Collection and processing of large amounts of information, at present, is possible only with the use of information technology, which is implemented through the creation of integrated systems. The world's leading customs services (Germany, France, Russia, Japan, China, the United States, Canada and many other countries) are also actively switching to modern electronic technologies.
In order to improve customs, it is necessary to create new electronic information systems and models of e-commerce in the field of, for example, international e-commerce, which will be functionally compatible with similar systems in different countries. Today, at the international level, it is important to define a standard data set that meets the requirements of governments for cross-border trade and is designed exclusively for the needs of automated systems. The revised 2006 Kyoto Convention on the Simplification and Harmonization of Customs Procedures provides for a new structure through which modern trade practices can operate. Including – through the international multifunctional complex systems "e-Customs" (or "electronic customs"), because it takes into account and uses flexible methods and systems that allow you to adapt to the changing nature of international e-commerce [2; 9]. It is obvious that acceleration and simplification of customs procedures is not possible with the use of old technologies based on paper documents. Here, customs information technologies, based on electronic document management, come to the fore. EU Member States have decided to act within the framework of e-Europe, ie a simple and paperless environment for customs administrations and foreign economic operators. Based on this, similar tasks for the implementation of new technologies in customs are set by the customs administrations of many CIS countries, Asia and America. These tasks differ only in terms of implementation and individual details. Therefore, "Electronic Customs" is not only the formation of several countries, it is the future of the customs community of the world [1].

**Literature review.** In the scientific literature, the issues of information customs technologies and customs and logistics services were considered by both foreign and domestic researchers, among which should be noted GV Atamanchuk, EV Dodina, Tereshchenko SS, Sorokina D., Egorova OV, NG Salishchev, SI Kotyurgina, Grebelnika OP, Russkova VA, Pashka PV, Derkacha VG etc.

Addressing this issue of effective declaration, elaboration of innovations in connection with the adoption of the new Customs Code and the importance of implementing full-scale electronic declaration in Ukraine have necessitated and relevance of this study.

**The aim of the study** is the introduction of modern electronic technologies in the management of integrated processes of customs and logistics services in Ukraine.

**Results of the research.** Many countries around the world have adopted e-commerce development programs. For example, the e-Europe program, which was adopted within the EU, provides for the transformation of EU countries into the world's leading region for the introduction of e-commerce. During 2005–2006, the EU Member States decided to operate within the framework of e-Europe, approved the Council Decision on a simple and paperless environment for customs administrations and international e-commerce entities, and identified the need to reduce the gap between these tasks. customs procedures of the world with the use of a new mechanism – "e-Customs" systems.

"E-Customs" is a multifunctional complex system that organically combines:
- information and communication technologies of different countries and a set of mechanisms for their application;
- already existing information systems for control of exports, imports and transit into a single automated system in such a way as to ensure the exchange of electronic information between all authorities and entities involved in export-import operations;
- systems of technological support of continuous flow, accumulation and processing of electronic information between customs administrations of states, national public authorities and subjects of international electronic commerce [1; 2; 8; 10].

The implementation of the e-Customs program among the EU countries began in 2003 through a pilot project of the Export Control System (ECS) in which initially 12 (out of 25) Member States participated (Belgium, Germany, Italy, Spain, Sweden, the United Kingdom, the
Czech Republic, Denmark, Portugal, the Netherlands, Austria, Poland). The purpose of the e-Customs program was defined in the EU Council Resolution of 5 December 2003, in particular: globalization and liberalization of trade, significant growth and growth of e-commerce, widespread use of information technology pose a new challenge to customs authorities; it is necessary for customs authorities to provide more efficient and friendly electronic services in order to promote European competitiveness [2; 9].

From 1st of January 2009, all transit operations under the TIR Convention (TIR) in the EU must be carried out using the European Customs Information System NCTS (New Customs Transit System), according to which the owner of the goods will be required to present the so-called TIR Carnet in electronic form (together with paper). This is the future of the world's customs system and e-commerce practice [4].

The Customs Service of Ukraine began implementing the latest technologies in customs in 1992. In 2005, a new stage of this work began to develop the principles of building the system "Electronic Customs" and its partial implementation.

"Electronic customs" is a multifunctional complex system that combines information and communication technologies and a set of mechanisms for their application and will improve the quality of customs regulation and improve customs administration in order to strengthen customs security of Ukraine, by:

- technological support for the continuous flow, accumulation and processing of electronic information between the customs administrations of the states, public authorities of Ukraine and the subjects of foreign economic activity;
- introduction of the newest modern electronic procedures of customs control and registration and their support;
- creation and technical support of organizational and technical systems for the functioning of comprehensive automated procedures for assessing the quality of customs performance;
- information support of law enforcement activities and control over the movement of goods [1; 8].

"Electronic customs" must combine such subsystems as electronic declaration; electronic document management; risk analysis and management; transit control; a single interdepartmental automated system for collecting, storing and processing information, including from executive authorities; automated implementation of all types of state control; unified database of normative and reference documents used for customs purposes; information support of audit and law enforcement. The unifying core of the customs service is information mechanisms. This is a guarantee of strengthening the authority and power of customs. This system should be based on the latest information technology and, accordingly, on modern facilities, which will create a modernized multilevel system using telecommunications technology, equipped with a comprehensive information security system, but it requires a long time and significant investment [2].

E-Customs should integrate existing export, import and transit control information systems into a single automated system so as to ensure the exchange of electronic information between all authorities and entities involved in export-import transactions. It will unite the technological support of the continuous flow, accumulation and processing of electronic information between the customs administrations of the states, the state authorities of Ukraine and the subjects of foreign economic activity. And, of course, e-Customs is expected not only to increase the efficiency of customs control and reduce the time of customs clearance. It is expected to introduce a system of unified registration of traders with registration in only one state. The Customs Service wants to provide them with access to single electronic access points for registration of import and export operations, to conduct all actual inspections of goods at the same time in one place. Finally, it
means the introduction of a paperless environment for customs and trade, filing a customs declaration electronically from your home or workplace in the company's office, regardless of the country of departure or import of goods [7].

In addition, the implementation of the project will provide public authorities at all levels with up-to-date and reliable statistical information, increase the effectiveness of the fight against smuggling, fraud, organized crime and terrorism, strengthen effective control over the prohibitions and restrictions on movement of certain goods across Ukraine's customs border. those that contain objects of intellectual property rights and national cultural heritage), to raise to a new level the efficiency of customs management [6].

The main strategic goals of e-Customs implementation are:
- collection and protection of budget revenues,
- protection of the economy,
- protection of society,
- collection of trade information,
- providing high quality advice,
- strengthening borders.

Such goals can be reached by the way of improving the legislation, policies and procedures, as well as the adoption of administrative decisions, such as the provision of information, spiraling to the readiness and analysis of the central information factor, including the competence of the personnel [6].

Taking into account the tasks assigned by the President and the Government of Ukraine to the Customs Service of Ukraine, in November 2010 the State Customs Service presented the Concept of reforming the Customs Service of Ukraine "Face to People", the main purpose of which is to bring customs procedures closer to European standards, reducing the impact of the human factor on the results of customs clearance, the implementation of a full-fledged partnership between customs and business. One of the main tasks of customs reform is the development and implementation of information technology in customs, automation of customs procedures. In this regard, the State Customs Service of Ukraine is taking a number of measures to introduce the use of foreign economic entities of the electronic form of declaration of goods, which is aimed at approximating the customs procedures of Ukraine to world norms and standards. [7].

The purpose of electronic declaration is to accelerate turnover, reduce time for customs control, the exclusion of subjective factors in the implementation of customs procedures through the use of customs clearance of goods cargo declaration and control documents for delivery of goods (prior notification and preliminary customs declaration) in electronic form.

Implementation of the procedure of electronic declaration of goods will create the necessary conditions for the use of information technology at a qualitatively new level and will ensure the introduction of electronic document management between customs authorities and enterprises using the mechanism of electronic digital signature [7].

The Order of the Cabinet of Ministers of Ukraine dated 17.09.08 №1236-r approved the Concept of creating a multifunctional integrated system "Electronic Customs", which provides for the implementation of three stages during 2009–2013 [3].

In order to effectively implement the electronic form of declaration of goods, the SCSU issued a number of regulatory acts that regulate this procedure. The State Customs Service reviewed the previously established evaluation criteria that companies must meet to submit electronic documents and the order of the State Customs Service dated 17.03.2011 № 216 approved the Terms of electronic declaration. In order to start electronic declaration, the enterprise-subject of foreign economic activity must be entered in the Register of enterprises, to the goods of which the electronic declaration procedure can be applied. The Order of the State Customs Service of Ukraine
17.03.2011 №216 significantly simplifies the procedure for admission of enterprises to electronic declaration, maintaining their Register, provides for the inclusion in such a Register of customs brokers [7].

Currently, the main condition for admission to electronic declaration is the conclusion of an agreement with the State Customs Service on granting authorized customs officials the right to access documents relating to the movement of goods and vehicles across the customs border of Ukraine.

Today, electronic customs notifications and electronic preliminary declarations are processed in the customs system. By the end of 2011, the State Customs Service planned to introduce a mechanism for submitting prior notifications by all FEA entities exclusively in electronic form and submitting electronic cargo customs declarations in the modes – "duty-free shop", "customs licensed warehouse", "customs licensed warehouse", "export" [7].

In order to understand the benefits of electronic declaration, you need to take advantage of its capabilities. This is, firstly, a saving of time – the declarant does not need to leave the office, he prepares a customs declaration and sends it electronically to the customs address. Second, the company can reduce material costs, including transportation, office equipment and paper.

On June 1, 2012, the new Customs Code of Ukraine came into force, which eliminated any restrictions on the use of electronic declaration. This procedure is available to absolutely all companies that move goods across the customs border of Ukraine and for any regime, whether export, import or transit.

In the presence of certificates of customs officers, the declarant has the opportunity to identify which official has carried out customs procedures on the electronic customs declaration. Customs sends these certificates in electronic form to all companies involved in electronic declaration.

An important element of electronic declaration is an electronic digital signature, the concept of which is defined by the Law of Ukraine of May 22, 2003 № 852-IV "On electronic digital signature" is a type of electronic signature obtained by cryptographic conversion of an electronic data set attached to this set or logically combined with it and allows to confirm its integrity and identify the signatory [5].

In May 2012, the Key Certification Center of the State Customs Service began free issuance of electronic digital signatures to foreign trade entities and customs brokers. Entrepreneurs can independently record in the electronic systems of customs (information terminals) the date and time of submission of the customs declaration [8].

Recently, 100 million UAH was allocated to the State Customs Service under the budget program for the development of a comprehensive system "Electronic Customs". "We plan to use these funds for the construction of a new data processing center of the SCSU, the development of the departmental telecommunications network, the purchase of software and the implementation of a number of other measures for the development of electronic declaration" [2].

The introduction of large-scale electronic declaration will have a positive impact on the work of enterprises, as they will have the opportunity to declare goods by submitting documents for control over delivery of goods (prior notification and prior customs declaration), cargo customs declaration only electronically (via the Internet without leaving your office), which will allow them to save their time on customs formalities. At the same time, the verification and processing of information entered in electronic copies of customs documents will be carried out automatically, which, in turn, will reduce the duration and improve the efficiency of customs procedures. Electronic declaration is now gaining relevance in the context of Ukraine's Euro-Atlantic integration, as many European countries have already introduced this form of activity in the field of foreign economic activity [8].
The national automated information system in the near future will automatically allow:
- to adapt the Unified Automated Information System of the State Customs Service of Ukraine to the new computerized transit system of the EU countries;
- control all cargo flows passing through the Ukrainian border;
- improve the quality of customs regulation and improve its administration: promptly exchange information on international electronic commercial transactions, control the movement of goods and vehicles;
- provide reliable information on intentions to conduct international electronic trade transactions and agreements;
- complete the creation of a risk analysis system and the introduction of electronic document management in the entire customs management system [3].

Implementation of the e-Customs project in Ukraine will also allow in automatic mode:
- analyze the goods that cross the border of Ukraine, in particular, how it is distributed across the country, at what prices it is sold and at what prices it is cleared through customs;
- to improve the information infrastructure of the State Customs Service;
- to introduce electronic declaration of goods and vehicles across Ukrainian borders [1; 3].

According to experts, the introduction of the "e-Customs" system will allow to reach a qualitatively new level of service for exported and imported goods, as well as increase budget revenues from customs duties by 2.3 times [2].

Ukraine's accession to the WTO, as well as accession to the International Convention on the Simplification and Harmonization of Customs Procedures and the Convention on Temporary Admission were important steps towards the development of a transparent trade environment in the country, which is also a priority of the EU-Ukraine Association Agenda. However, the ongoing customs reform aimed at reducing trade barriers has been hampered by the country's volatile political situation, lack of political will and high levels of corruption. As a result, Ukraine is not fully exploiting its trade potential, its investment attractiveness is declining. This is evidenced by the low position of our country in the ranking of the World Bank Doing Business. In particular, in 2011 Ukraine took 139th place out of 183 countries in the category "International Trade" [6].

The Customs Code is designed to change the situation for the better and promote the implementation of the priorities of the EU-Ukraine PDA for 2011–2012 in the area of "Trade and Customs Facilitation". The Customs Code includes the following provisions that correspond to the priority of the STA to ensure a transparent trade environment and support the facilitation of legitimate international trade:
- the right of the declarant to carry out customs clearance of goods in any customs authority;
- the right of the declarant to declare the goods before their arrival in Ukraine or to the customs authority of destination;
- reduction of the term of customs clearance from 1 day to 4 hours from the moment of submission of the customs declaration and documents and reduction of the list of documents required for customs clearance;
- personal liability of a customs official for illegal delays in customs clearance;
- Legislative consolidation of post-audit, basics of electronic declaration and the principle of "single window" (to control the movement across the customs border of Ukraine of certain types of goods) in accordance with the recommendations of UNCTAD;
- release of the declarant from liability for unintentional errors [5].

All these rules are progressive instruments of customs regulation, widely used in EU countries. However, the effectiveness of their implementation in Ukraine is questionable given the many years of experience in customs reform and strengthening the fiscal component of the Ministry of Revenue and Duties of Ukraine during the crisis. Solve the accumulated problems in the field of
customs regulation is possible only in combination with changes in the conditions of foreign economic and business activities and the simultaneous reform of law enforcement and regulatory agencies.

Conclusions and suggestions. "E-Customs" is a multifunctional complex system that organically combines: information and communication technologies from around the world and a set of mechanisms for their application; already existing information systems for control of exports, imports and transit into a single automated system in such a way as to ensure the exchange of electronic information between all bodies and entities involved in export-import operations; systems of technological support of continuous flow, accumulation and processing of electronic information between customs administrations of states, national public authorities and subjects of international electronic trade.

"Electronic customs" must combine such subsystems as electronic declaration; electronic document management; risk analysis and management; transit control; a single interdepartmental automated system for collecting, storing and processing information, including from executive authorities; automated implementation of all types of state control; unified database of normative and reference documents used for customs purposes; information support of audit and law enforcement.

The purpose of electronic declaration is to accelerate turnover, reduce time for customs control, the exclusion of subjective factors in the implementation of customs procedures through the use of customs clearance of goods cargo declaration and control documents for delivery of goods (prior notification and preliminary customs declaration) in electronic form.

The new Customs Code, which entered into force on June 1, 2012, provides an opportunity to make extensive use of modern electronic technologies. Now absolutely all subjects of foreign economic activity, which are registered with the customs authorities and have an electronic digital signature, can use electronic declaration.

The need to simplify and speed up customs procedures during the import and export of goods to (from) the country, reduce the risk of customs and economic security requires the creation of integrated electronic information systems of customs clearance and control, which should include systems (subsystems) minimal intervention of the official responsible for entering a certain set of data (human factor), production, collection, accumulation, storage, transmission, etc. of primary information necessary to perform the tasks of customs clearance and control.

The New Customs Code of Ukraine provides for the full-scale introduction of information technologies, electronic document management and electronic declaration in order to stimulate foreign trade. An important tool for this is the maximum automation and informatization of processes in customs – the creation of a multifunctional integrated system (hereinafter – MFIS) "Electronic Customs".

Establishment of MFIS "Electronic Customs" is aimed at strengthening customs security of Ukraine, further development and adaptation of information systems of the State Customs Service of Ukraine to European Union standards, creating conditions for accelerating customs control and customs clearance procedures, improving the level of state services in the customs sphere committing illegal and corrupt acts.

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