DOI: 10.31520/2616-7107/2020.4.4-4

ISSN 2616-7107

# UDC 339.97: 334.72 JEL: F2, F3, H2, O2

## Myroslava Bublyk

Doctor of Economic Sciences, Professor, Lviv Polytechnic National University, Lviv, Ukraine E-mail: my.bublyk@gmail.com orcid.org/0000-0003-2403-0784

## Tetiana Pihniak

Candidat of Economic Sciences, Khmelnytskyi University of Management and Law, Khmelnytskyi, Ukraine E-mail: t\_pikhniak@univer.km.ua orcid.org/0000-0002-3301-3495

Received: June,	2020
Accepted: September,	2020

DOI:10.31520/2616-7107/2020.4.4-4

© Economics. Ecology. Socium, 2020 CC BY-NC 4.0 license

# EFFICIENCY ANALYSIS OF ADMINISTERING INTERNATIONAL ECONOMIC ACTIVITY

**Introduction.** In modern conditions, enterprises have every opportunity to implement all types of international economic activity. The main issues are the administration of the efficiency of international economic activity. The urgency of the work is due to the need for comprehensive research in the field of administration of efficiency of international economic activity.

Aim and tasks. The purpose of the article is to study the administration of the effectiveness of international economic activity and review the regulations on its implementation. This defined the following tasks: 1) to investigate the regulations of international economic activity of the enterprise; 2) to analyse the efficiency of foreign economic activity in terms of economic efficiency of imports; 3) to develop an approach to the administration of the efficiency of international economic activity of the enterprise.

**Results.** The article examines the system of regulations on international economic activity of enterprises and its administration. The essence of the concept of "efficiency of international economic activity" and the classification of efficiency indicators are Factors influencing the income highlighted. and expenditure of international economic activity for its effectiveness considered. The analysis are of administration of efficiency of international economic activity of subjects of economic activity by means of an indicator of efficiency of import is carried out. The efficiency of one import operation is calculated on an example. It is proposed to consider the effective administration of import activities carried out by the company, if each 1 UAH costs more than 1 UAH income.

**Conclusions.** The paper identifies the stages at which both internal and external administration of foreign enterprise. Stages economic activity of the for administration of efficiency by international economic activity of the enterprises are offered. According to the results of research, the need to create a regulatory framework for the administration of the effectiveness of international economic activity of enterprises is substantiated.

**Keywords:** efficiency of foreign economic activity, administration, efficiency indicators, normative-legal acts, methods of efficiency analysis of foreign economic activity.

### DOI: 10.31520/2616-7107/2020.4.4-4

ISSN 2616-7107

## УДК 339.97: 334.72 JEL: F2, F3, H2, O2

#### Мирослава Бублик

Доктор економічних наук, професор, професор кафедри менеджменту і міжнародного підприємництва, Національний університет «Львівська політехніка» Львів, Україна E-mail: my.bublyk@gmail.com orcid.org/0000-0003-2403-0784

### Тетяна Піхняк

Кандидат економічних наук доцент кафедри менеджменту, фінансів, банківськоі справи та страхування, Хмельницький університет управління та права імені Леоніда Юзькова Хмельницький, Україна E-mail: t\_pikhniak@univer.km.ua orcid.org/0000-0002-3301-3495

Отримано: Червень, 2020 Прийнято: Вересень, 2020

DOI:10.31520/2616-7107/2020.4.4-4

© Економіка. Екологія. Соціум, 2020 СС ВУ-NC 4.0 ліцензія

# АНАЛІЗ ЕФЕКТИВНОСТІ АДМІНІСТРУВАННЯ МІЖНАРОДНОЇ ЕКОНОМІЧНОЇ ДІЯЛЬНОСТІ

Вступ. У сучасних умовах підприємствам мають всі можливості для реалізації всіх видів міжнародної економічної діяльності. Головного значення набувають питання щодо адміністрування ефективності міжнародної економічної діяльності. Актуальність роботи зумовлена необхідністю здійснення комплексних досліджень у сфері адміністрування ефективності міжнародної економічної діяльності.

Мета і завдання. Метою статті є дослідження адміністрування ефективності міжнародної економічної діяльності та огляд нормативно-правових актів щодо її здійснення. Це визначило такі завдання: 1) дослідити нормативно-правові акти здійснення зовнішньоекономічної діяльності підприємства; 2) проаналізувати ефективність міжнародної економічної діяльності за показником економічної ефективності імпорту; 3) розробити підхід до адміністрування ефективності міжнародної економічної діяльності підприємства.

Результати. статті лослілжено У систему нормативно-правових актів щодо зовнішньоекономічної діяльності підприємств та її адміністрування. Висвітлено сутність поняття «ефективність міжнародної економічної діяльності» і класифікацію показників ефективності. Розглянуто чинники впливу на доходи і витрати міжнародної економічної діяльності для її ефективності. Здійснено аналізування адміністрування ефективності міжнародної економічної діяльності суб'єктів господарської діяльності показника за допомогою ефективності імпорту. прикладі Розраховано на ефективність однієї операції з імпорту. Запропоновано вважати ефективним адміністрування імпортною діяльністю, яку здійснює компанія, якщо на кожну гривню витрат припадає більше 1 гривні доходу.

Висновки. У роботі визначено стадії, на яких здійснюється як внутрішнє, так і зовнішнє адміністрування міжнародної економічної підприємства. ліяльності Запропоновано етапи для здійснення адміністрування ефективності зовнішньоекономічною діяльністю підприємств. За результатами досліджень обґрунтовано необхідність створення нормативно-правової бази зовнішньоекономічної адміністрування ефективності діяльності підприємств.

Ключові слова: ефективність зовнішньоекономічної діяльності, адміністрування, показники ефективності, нормативно-правові акти, методи аналізування ефективності зовнішньоекономічної діяльності.

Introduction. In modern conditions, enterprises have every opportunity to implement all types of foreign economic activity. The main issues are the administration of the efficiency of foreign economic activity. Analysis of the effectiveness of international economic activity contributes to the improvement of administrative processes by structuring plans, making management decisions and more. The problem of effective implementation of international economic activity requires taking into account the influences of factors of both internal and external environment. The urgency of the work is due to the need for the field comprehensive research in of administration of efficiency of foreign economic activity.

Analysis recent research and publications. The most significant contribution to the study of foreign economic activity of enterprises and its efficiency was made by both foreign and domestic scientists: A. Broyaka [1], M. Bublyk [2-3], T. Vasyuk [4], Yu. Kozak [5], O. Kotysh [6], R. Psyuk [7], A. Semenov and G. Semenov [8]. Dr. Ram Singh [9]. Peculiarities of foreign economic activity development in the context of European integration are studied in [10-13], where the impact of the implementation of the Association Agreement between the European Union and Ukraine on export-import activities and the creation of innovative organizational structures in European markets. In [14] the authors substantiate the need to administer structural changes in the business environment in the markets of Ukraine. At the present stage of economic development, a large number of scientific and methodological works on the administration of foreign economic activity are devoted. However, in fact there is no research on the administration of the effectiveness of foreign economic activity.

**Aim and tasks.** The purpose of the article is to study the administration of the effectiveness of foreign economic activity and review the regulations on its implementation. The main tasks: to investigate the regulations of foreign economic activity of the enterprise; to analyze the efficiency of foreign economic activity in terms of economic efficiency of imports; to develop an approach to the administration of the efficiency of foreign economic activity of the enterprise.

**Results.** For the administration of foreign economic activity is important system of regulations, which consists of resolutions of the Cabinet of Ministers, laws of Ukraine, regulations, orders and instructions, which are presented in Table. 1.

The main characteristic for the implementation of foreign economic activity is its efficiency, which is calculated by various indicators by comparing profits with the costs of the enterprise. Efficiency, according to the authors in [26, 27] applies to all components of economic activity of the enterprise.

Currently, a large number of domestic and foreign scholars interpret the essence of the concept of "efficiency of foreign economic activity" quite differently [5]. Thus, researchers A. Broyak [1], O. Kotysh [6] identify the essence of the concept as a comprehensive indicator of the profitability of the enterprise, and Y. Kozak [5] as an element of increasing income.

Also, there are views of researchers such as A. Semenov and G. Semenov [8] that the effectiveness of foreign economic activity is the result of successful marketing activities, but T. Vasyuk [4] argues that this is the result obtained from a separate operation. And one foreign researcher R. Singh [9] considers this concept as a process of interconnection of the components of enterprise competitiveness.

The effectiveness of foreign economic activity is characterized by various factors that must be considered to influence the income and expenditure of foreign economic activity (Table 2) [5].

<u> </u>	the auministration of foreign economic activity
The name of the legal act	The essence of the legal act
"On foreign economic activity" [15]	The concepts, subjects, types and principles of foreign economic
	activity are defined, the purposes and methods of state regulation
	are outlined, and also norms concerning responsibility for
	infringements are contained.
"On Amendments to Certain Legislative	In accordance with foreign economic activity also includes the
	activities of state customers on the state defence order in cases
of Defence Products, Works and Services	specified by the law of Ukraine
on Imports" [16]	The legal hasis for foreign exchange transactions examples
"On currency and currency transactions" [17]	The legal basis for foreign exchange transactions, currency regulation and currency supervision, the rights and obligations of
	the subjects of foreign exchange transactions and authorized
	institutions and establishes liability for violations of foreign
	exchange legislation
"On the Customs Tariff of Ukraine" [18]	Contains a list of national tax rates - import duty on goods
L - 1	imported into the customs territory of Ukraine and systematized
	according to the Ukrainian Classification of Goods for Foreign
	Economic Activity (UKTZED), compiled on the basis of the
	Harmonized Commodity Description and Coding System.
"On approval of lists of goods, export	Such lists ensure the formation of a rational structure of exports
and import of which are subject to	and imports of certain types of goods, the implementation of
licensing, and quotas for 2019" [19]	international agreements of Ukraine.
"On the State Fiscal Service of Ukraine"	Carries out control over: observance by subjects of foreign
[20]	economic activity and citizens of the order of movement of the
	goods, vehicles across the customs border of Ukraine established by
	the legislation; application of tariff and non-tariff regulation
	measures in accordance with the law during the movement of goods
	across the customs border of Ukraine and after the completion of customs control and customs clearance operations; the correctness
	of determining the customs value of goods in accordance with the
	law, as well as the correctness of determining the country of origin
	and classification according to the Ukrainian Classification of
	Goods for Foreign Economic Activity (UKTZED) of goods moving
	across the customs border of Ukraine
Methodological provisions on foreign	The basic rules and methods of forming statistics of foreign trade
trade statistics for goods [21]	in goods of Ukraine are determined, which establish the principles
Methodological provisions for	and methods of collecting, processing and analysing statistical
calculating indices of average prices,	information.
physical volume and terms of trade in	
foreign trade in goods [22]	
Methodological provisions for	
calculating the cost of insurance and	
freight in imports of goods [23]	
"On approval of the Regulations on the	A foreign trade contract is concluded, which has characteristic
form of foreign economic agreements	features: the parties to the contract are under the jurisdiction and in
(contracts)" [24]	the territory of different states; the subject of the contract - the
	goods - crosses customs borders; payments under such a contract are made in foreign currency through an authorized bank (except
	for barter agreements)
Instructions on the procedure for foreign	To regulate the procedure for banks to conduct foreign exchange
exchange supervision of banks on	supervision over the observance by residents of the deadlines set
compliance by residents with the	by the National Bank of Ukraine for settlements on operations on
deadlines for settlements on export and	export and import of goods
import of goods [25]	
Source: built by the authors on the materia	~1 <sub>a</sub> [15 25]

Table 1	Regulations	for the	administration	of foreign	economic activity
	. Regulations	ior the	aummisti auvii	of for eight	economic activity

*Source: built by the authors on the materials* [15-25]

\_\_\_\_

	Factors influencing income	Factors influencing costs		
	increase in the level of sales prices of goods	insufficient legal framework		
tal	(products) on world markets			
s.	suitable investment climate	the presence of trade barriers		
Environmental factors	fast transfer of information about new products	Inflation		
vir fa	increasing demand for products from foreign	activity of competitors in the		
En	consumers	international markets of goods and		
		services of the enterprise		
u u	raising the level of production technologies	insufficient amount of financing of		
s of the rnal nment	implementation of effective marketing activities	foreign economic activity by the		
s of rna nm		enterprise		
	opportunities to move production from country to	Weakly effective structure of		
act i	country	foreign economic activity		
ц	growth of market share and number of consumers	management		

Table 2. Factors influencing the income and expenditure of foreign economic activity

Source: created by authors based on materials [5-9]

Because there are no common methods for understanding the effectiveness of foreign economic activity, some scholars offer their own. Thus, O. Vakulchyk and D. Dubytsky [28] distinguish the method of grouping, T. Vasyuk [4] – the method of complex assessment, J. Pukhanska [29] – the method of constructing an integrated indicator, and L. Fedorets [30] the method of step-by-step detailing.

At the present stage of development of foreign economic activity, there are different views on the classification of indicators, which can be used to determine the effectiveness of foreign economic activity. In works [31-35], the efficiency of foreign economic activity is classified according to the following indicators: 1) Export / import efficiency; 2) Return on funds from export / import operations; 3) The average duration of turnover of operations.

Therefore, based on the above data, we calculate the efficiency of the developed foreign trade import operation.

Contract value  $(V_{co})$  calculated by formula (1):

$$V_{co} = P * K, \tag{1}$$

where P – price per unit of imported goods, dollar; K – total quantity of imported goods.

Customs value  $(V_{cu})$  indicated in the form of the Customs Declaration-3 column 45 in the currency of Ukraine. Import Contract Price  $(P_{im})$  calculated by the formula (2):

$$P_{\rm im} = \frac{Vcu*\%Duty}{100\%} + \frac{Vcu*\%VAT}{100\%} + Vcu$$
 (2)

Economic effect of imports  $(E_{eiMII})$  calculated as (3):

$$e_{im} = CI_{dm} - P_{im}, \qquad (3)$$

where  $CI_{dm}$  – the cost of imported products in the domestic market.

Economic efficiency of imports  $(E_{im})$  calculated as (4):

$$E_{im} = \frac{CI_{dm.}}{P_{im}}$$
(4)

To analyze in more detail the mechanism of import operations, we calculate the efficiency of import of goods on the basis of data from the customs declaration, as an example:

- Unit price is \$ 0.237;

- Total number is 11.664 pcs.;
- Terms of delivery are FCA BG Shumen;
- Customs value is UAH 71,786.14;
- Customs tariff rate is 6.5%;
- VAT is 20%;

- The approximate selling price on the domestic market of Ukraine is 11 UAH per piece.

$$V_{co} = 0,237 * 11 664 = 2764,37$$
\$= 2764,37 \* 25,60 = 70767,87 UAH;

*Vcu*= 71 786,14 UAH;

*Duty* = 71 786,14 \* 0,065 = 4 666,1 UAH; *VAT* = 71 786,14 \* 0,2 = 14 357,23 UAH;

 $P_{im} = 14\ 357,23 + 4\ 666,1 + 71\ 786,14 =$ 90 809,47 UAH;

Economic effect of imports:

 $(e_{im}) = 11*11664 - 90809,47 = 37494,53$  UAH.

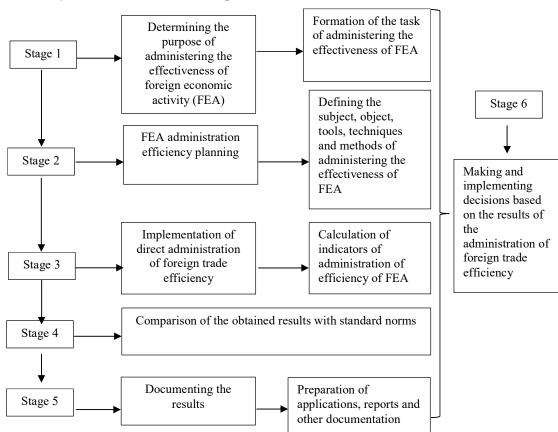
Economic efficiency of imports:

 $(E_{im}) = 11 * 11 664/90 809,47 = 1,41 \text{ UAH}.$ 

It can be concluded that the import activity carried out by the company is effective, because for every hryvnia of costs there is 1.41 UAH of income.

Evaluation of the effectiveness of foreign economic activity allows you to structure plans and management decisions, to carry out activities taking into account the influence of internal and external factors, as well as to assess the final results of the enterprise. Thus, the analysis of the company's foreign trade efficiency indicators makes it possible to identify the usefulness of foreign economic operations and take measures to enter new international markets and obtain high profits at low costs.

To administer the effectiveness of foreign economic activity, it is necessary to develop reports on the results of foreign economic transactions. Thus administration at the enterprises still occurs in the form of: inventory, control measurements, supervision, inspections, examinations, interrogations, statistical calculations, etc. We recommend performing the administration of foreign trade efficiency at the enterprise in 5 stages (Fig. 1).



**Fig. 1. Stages of administration of efficiency by foreign economic activity (FEA)** Source: author's development

There are three important stages in which both internal and external administration of foreign economic activity is carried out. Administration can be carried out at different times according to the foreign trade transaction: before, during or after. At the previous stage, the administration is primarily related to risk assessment, analysis and management. Thus, for internal administration there is risk management, which includes: forecasting, expert assessments, intuition of managers, risk protection, analysis of the terms of the foreign trade agreement. And for the external - a preliminary customs audit with the use of rating systems for foreign trade.

At the current stage, the external administration carries out the movement of goods across the customs border of Ukraine and includes customs, sanitaryepidemiological, environmental, radiological administration. During internal administration, a notification or declaration is submitted upon import of goods, documents required for customs clearance of vehicles and goods are prepared, packaging and transportation of goods are controlled in accordance with the terms of delivery of Incoterms, etc.

At the next stage of internal administration is performed: control over the differences between the actual indicators from the planned and regulatory, control over the effectiveness of operations and verification and execution of documents for further storage. And during the implementation of external - controlled transactions with toll raw materials and checked:

- customs value of goods in accordance with the Ukrainian classification of goods of foreign economic activity, country of origin;

- targeted use of goods imported with the provision of tax benefits and as humanitarian aid;

- accounting of property imported into

Ukraine as a contribution of a foreign investor to the authorized capital;

- export operations with goods in respect of which the export duty has been approved;

- completeness and terms of payments under foreign trade agreements.

**Conclusions.** In the work to study the administration of the effectiveness of foreign economic activity of enterprises, the following conclusions can be drawn:

1. Administration of foreign economic activity includes regulations, which consist of: laws, regulations, resolutions, orders and instructions. However, additional legal acts need to be developed to administer the effectiveness of foreign economic activity, as they do not currently exist.

2. The administration of the efficiency of foreign economic activity can be carried out on the basis of the efficiency of imports. Thus, company carries out quite effective import activities, as each hryvnia costs 1.41 hryvnias of income.

3. Administration of foreign economic activity efficiency is recommended to be performed in 5 stages: 1). Determining the purpose of foreign trade efficiency administration. 2). Planning the administration of foreign trade efficiency. 3). Implementation of direct administration of foreign trade efficiency. 4). Comparison of the obtained results with standard norms. 5). Documenting the results.

# REFERENCES

1. Broyak, A.A. (2012). Evaluation and ways to improve the efficiency of foreign economic activity of the enterprise. *Economic Sciences*, 5 (2), 46–51.

2. Bublyk, M.I. (2013). Economic evaluation of technogenic losses of business entities on fuzzy logic based opportunities. In: Agnieszka Strzelecka (Eds.). *Zarzadzanie organizacja w warunkach niepewnosci.* (pp. 19-29). Chestochowa: Politechnika Chestochowska, Wydzial Zarzadania.

3. Bublyk, M.I., Dulyaba, N.I., Petryshyn, N.Ya., & Drymalovska Kh.V. (2018). Analysis of the development of educational and scientific activity of institutions of higher education. *Economic analysis*, 28, 1, 30-39.

4. Vasyuk, T.V. (2015). Methods of research and determination of economic efficiency of foreign economic activity of economic entities. *Actual problems of economy*, 3, 131–136. Retrieved from: http://nbuv.gov.ua/UJRN/ape 2015 3 17

5. Kozak, Yu. G. & Gulakova, V.L. *Evaluation of the efficiency of foreign economic activity of enterprises*. Retrieved from: https://conf.ztu.edu.ua/wp-content/uploads /2018/09/255.pdf

6. Kotysh, O.M. (2016). Theoretical aspects of the effectiveness of foreign economic activity: a conceptual and categorical apparatus. *Competitiveness and innovation: problems of science and practice. Proceedings of the International Scientific and Practical Conference* November 17-18, 334-340.

7. Psiuk R. M. (2014). Determinants of efficiency of foreign economic activity of industrial enterprises. In: *Innovation process management in Ukraine: establishing interaction between participants*, 98–99.

8. Semenov, G.A. & Semenov, A.G. (2009). Economic efficiency of foreign economic activity of joint-stock company. *Economic Bulletin of the Donbass*, 4, 54–59.

9. Singh, R. (2009). International trade operations. First Edition: New Delhi, 504/

10. Bublyk, M., Udovychenko, T., & Medvid, R. (2019). Concept of Smart Specialization in the Context of the Development of Ukraines Economy. *Economics. Ecology. Socium*, 3, 55-61. DOI: https://doi.org/10.31520/2616-7107/2019.3.2-6.

11. Bublyk, M. I., & Koropetska, T. O. (2008). Analysis of the methods of economic evaluation of damage caused to foresty by man-made emergency situations. *Bulletin of Lviv Polytechnic National University. Series: Economics and Management Issues*, 611, 71-80.

12. Association Agreement between the European Union and its Member States, of the one part, and Ukraine, of the other part. (2014). Retrieved from European Commission:http://trade.ec.europa.eu/doclib/docs/2016/november/tradoc\_155103.pdf

13. Kuzmin O.Ye., Bublyk M.I., & Rybytska O.M. (2014). The application of fuzzy logic to forecasting of technogenic damage in the national economy. *Bulletin of Lviv Polytechnic National University, Series: Management and Entrepreneurship in Ukraine: Stages of Formation and Problems of Development*, 790, 63 – 73.

14. Bublyk, M., & Didyk, A. (2018). Modeling of innovative development of administration of outsourcing activities of IT-market enterprises. *Economics, Entrepreneurship, Management*, 5(2), 11–18.

15. Law of Ukraine on foreign economic activity № 959-XII (1991, April 16). *Vidomosti Verkhovnoyi Rady Ukrayiny*, 29, 377 [in Ukrainian]. Retrieved from: https://zakon.rada.gov.ua/laws/show/959-12

16. Law of Ukraine on amendments to some legislative acts of Ukraine on the implementation of purchases of defense products, works and services on import № 2672-VIII (2019, January 17). *Vidomosti Verkhovnoyi Rady Ukrayiny*, 7, 43 [in Ukrainian]. Retrieved from: https://zakon.rada.gov.ua/laws/show/2672-19

17. Law of Ukraine on currency and currency transactions № 2473-VIII (2018, June 21). *Vidomosti Verkhovnoyi Rady Ukrayiny*, 30, 239 [in Ukrainian]. Retrieved from: https://zakon.rada.gov.ua/laws/show/2473-19

18. Law of Ukraine "On the Customs Tariff of Ukraine" of June 4, 2020 № 674-IX. (2020).

*Vidomosti Verkhovna Rada* (VVR) [Information of the Verkhovna Rada], 42, Article 344 https://zakon.rada.gov.ua/laws/show/674-20#n11

19. CMU Resolution on approval of the lists of goods, exports and imports of which are subject to licensing and quotas for 2019 № 1136 (2018, December 27). Retrieved from: https://zakon.rada.gov.ua/laws/show/1136-2018-%D0%BF

20. *CMU Regulation on the state fiscal service of Ukraine* № 236 (2014, May 21). Retrieved from: https://zakon.rada.gov.ua/laws/main/236-2014-%D0%BF

21. Order of the State Statistics Service of Ukraine *Methodological provisions on statistics* on foreign trade in goods №413 (2013, December 25). Retrieved from: https://ukrstat.org/en/metod\_polog/metod\_doc/2013/413/met\_polog.zip

22. Order of the State Statistics Service of Ukraine Methodological provisions for the calculation of indices of average prices, physical volume and conditions of trade in foreign trade in goods №419 (2005, December 9). Retrieved from: https://ukrstat.org/en/metod\_polog/metod\_doc/zed\_/zed\_01.pdf

23. Order of the State Statistics Service of Ukraine Methodological Provisions for the Calculation of Insurance and Freight Costs in the Import of Goods № 371 (2009, October 9). Retrieved from: https://ukrstat.org/en/metod\_polog/metod\_doc/zed/zed\_02.pdf

24. On Approval of the Regulations on the Form of Foreign Economic Contracts № 201 (2001, September 6). Retrieved from: https://zakon.rada.gov.ua/laws/main/z0833-01

25. Instructions on the procedure of currency supervision of banks for compliance with residents of settlement time limits for exports and imports of goods №7 (2019, January 2). Resolution of NBU. Retrieved from: https://zakon.rada.gov.ua/laws/show/v0007500-19

26. Kryvovyazyuk, I.V. & Telyezhinsky, N.V. (2017). Theoretical and methodological substantiation and analysis of the efficiency of foreign economic activity of the enterprise. *Effective Economics*, 9. Retrieved from: http://www.economy.nayka.com.ua/?op=1&z=5762

27. Bekesh R., Chyrun L., Kravets P., Demchuk A., Matseliukh Y., Batiuk T., Peleshchak I., Bigun R., Maiba I. (2020). Structural Modeling of Technical Text Analysis and Synthesis Processes. CEUR Workshop Proceedings, 2604, 562–589.

28. Vakulchyk, O.M. & Dubitsky D.P. (2012). Analysis of the efficiency of foreign economic activity of the enterprise. *Bulletin of the Academy of Customs Service of Ukraine*. *Series: Economy*, 2, 75–82.

29. Pukhanskaya, Ya. P. (2012). Analysis of the efficiency of foreign economic activity of the machine-building enterprise. *Bulletin of the Khmelnytskyi National University*, 3, 85–89.

30. Fedorets, L.M. (2011). Methodical approach to the evaluation of the effectiveness of foreign economic activity of the agroindustrial complex of the region. *Agrosvit*, 21, 13–16.

31. Roman Lynnyk, Victoria Vysotska, Matseliukh Y., Yevhen Burov, Lyubomyr Demkiv, Andrij Zaverbnyj, Anatoliy Sachenko, Inna Shylinska, Iryna Yevseyeva, Oksana Bihun DDOS Attacks Analysis Based on Machine Learning in Challenges of Global Changes (2020). *CEUR Workshop Proceedings*, 2631, 159–171.

32. European Commission (2014). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions for a European Industrial Renaissance. Com (2014) 14 Final. Brussels.

33. Symovonyk, I.; Matseliukh, Y.; Redina, Y. (2019). Evaluation and Analysis of Activity in Social Networks in the Context of the Digital Economy Development. *Economics. Ecology. Socium*, 3, 73-81.

34. Callaert, J., B. Van Looy & Vereyen, C. (2011). Descriptive Report: Concordance from Technology to Industry.

35. OECD (2005). Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition. Paris: OECD.