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INTERNATIONALIZATION OF ECO-INNOVATIONS IN THE SERVICE DELIVERY SYSTEM DURING THE POST-WAR RECONSTRUCTION OF THE COUNTRY

Summary

The scientific research problem lies in the insufficient development of organizational and economic measures for the policy of internationalization from countries with advanced economic systems to those with transitional or developing economies, as well as countries experiencing military conflict. These countries require reconstruction in the post-war period. The research results include the following elements: the preconditions for the necessity of implementing the internationalization of eco-innovations in the country's post-war recovery system are examined; a literature review of studies on the promotion of eco-innovations within the national economy and their internationalization is conducted. Procedural aspects of implementing the system of eco-innovation internationalization using benchmarking technologies are analyzed. Promising directions and organizational solutions

for the tax support of eco-innovation internationalization in the service delivery system are proposed, based on the experience of economically developed countries and the adoption of their successful practices in Ukraine's post-war reconstruction system. Relevant conclusions from the research are presented.

Introduction

In the context of various crisis phenomena currently observed worldwide, it is important to highlight the significance of developing organizational and economic support for the internationalization processes of eco-innovations in the service delivery system, based on the implementation of advanced practices from countries with developed economic systems. It should also be noted that the issue of eco-innovation internationalization has become especially relevant, primarily through the use of effective service delivery platforms in European Union countries and tax mechanisms used by service providers who actively implement eco-innovations.

This organizational and economic support for the internationalization of eco-innovations is crucial in implementing post-war reconstruction policies and seeking additional sources of revenue for the country's budget. It is important to note that the authors of this research define eco-innovation as the use of electrical equipment for the delivery of goods and services, with a preference for electric-powered vehicles as part of optimizing transport costs in freight delivery.

This aspect is debatable, as it does not fully reflect the potential of innovations, but considering the implementation in the service systems of transitional and developing economies, it can be considered a radical improvement in service providers' operations. This is particularly relevant in these countries, where the use of electric vehicles is individual rather than mass-oriented due to a lack of refueling infrastructure between cities and within regional cities, as well as insufficient working capital for businesses to transition to electric vehicles.

This situation calls for the internationalization of not only services but also the production sector (construction of new refueling stations and an expanded network of electric refueling complexes). In this context, it is important to consider the transformation mechanisms of eco-innovation use in the country during post-war reconstruction.

The internationalization mechanism should prioritize the country's immediate needs, such as the development of the construction and manufacturing sectors, while also addressing consumer needs in the delivery of goods and services, particularly in large cities where there is a significant demand for optimized logistics services among providers.

The procedural stages of implementing service internationalization should also be considered as part of a roadmap for transitional economies to achieve

the planned economic outcomes from the implementation of eco-innovation internationalization during the post-war recovery period.

It is also necessary to emphasize the need for researching the factorial impact and mechanisms of tax support for service providers in the implementation of the internationalization of eco-innovations.

According to the authors, this may influence the optimization of tax levers in the operations of service business entities and increase the level of tax revenues to budgets at all levels in the country during its post-war reconstruction.

Chapter 1. Theoretical foundations of the internationalization of eco-innovations in the service delivery system

Let us proceed with the literature analysis of the main works related to the study of the internationalization of eco-innovations in sustainable development systems of countries with different levels of economic system development (from developed to transitional and developing economies).

Researchers López Pérez G., García Sánchez I.M., Zafra Gómez J.L. [1] conducted a bibliometric analysis of eco-innovations in the financial sector of eco-innovation implementation by business entities, analyzing the barriers and pathways to developing financial results from eco-innovations by business entities.

A comparative analysis among the G-7 economies was carried out by the scientist Zhang Y. [2], focusing on promoting sustainable growth through eco-innovations, energy transition, and human capital, which leads to the relevance of sustainable economic development and phase transitions in innovation development.

Scientists Alka T.A., Raman R., Suresh M. [3] studied the trends in the innovation ecosystem and circular economy, which is a contemporary direction in global bioeconomics research.

Economists Ali Y., Uddin A., Petrillo A. [4] examined the impact of government support and organizational culture on sustainable efficiency by revealing the intermediary role of circular economy and eco-innovations, which calls for further research on the mechanisms of government support for eco-innovations, including in intergovernmental partnerships.

Peters A., Schuster A.S., Kanbach D.K., Kraus S., Meyer N. [5] in their study explored eco-innovation subjects and their communications within the system of sustainable development, which helps understand the sustainability of communication technologies in the operations of eco-innovators.

Researchers Koech D.K., Degago E., Kipkorir C.S.S., Szabó A.P., Molnár E. [6] studied the processes of internationalization and globalization in higher education, examining the categories of multicultural students in Hungary and their views on the impact of machine translation on team

performance, which reflects the internationalization of eco-innovators in European educational institutions.

Researchers Zheng Q., Choi T.-H. [7] studied the processes of internationalization in the educational process through the implementation of progressive technologies for English-language courses at a Chinese university as a general strategy for internationalization, which helps understand the development vectors of strategies and tactics for internationalization processes in the educational space with the introduction of innovative learning technologies.

Institutional analysis of the internationalization of the yuan through the internationalization of currency, payment infrastructures, and central banks was conducted by economist Zucker-Marques M. [8], which emphasizes the necessity of considering institutional influences within the financial system of a country that is one of the leaders in implementing eco-innovation replications.

Experts Sayed S., Gherissi Labben T. [9] studied the failures and mistakes in internationalization processes, as part of motivation and self-efficacy after withdrawal from foreign markets, which leads to consideration not only of the positive but also the negative aspects of internationalization, particularly in countries with developing economic systems and those under global economic sanctions (Russia, Iran, North Korea).

Researchers Partala T., Jantunen S., Kuukkanen T., Merikoski H. [10] in their work investigated factors affecting the growth and internationalization of eco-innovations in microenterprises in the sparsely populated region of South Savo, Finland, which characterizes the use of factor analysis in the internationalization of eco-innovations by small businesses, leading to the relevance of studying the factor influence on the internationalization of eco-innovations.

Let us examine the results of the bibliometric analysis conducted on the internationalization of eco-innovations to form an understanding of the leading authors and scientific schools studying this issue at the contemporary level of economic development.

The results of the bibliometric analysis are presented in Figure 1, and the necessary conclusions are drawn regarding the bibliometric analysis conducted. A tabular interpretation of the results of a bibliometric analysis of leading authors researching eco-innovations in the context of internationalization allows for a more comprehensive representation of the citation of authors' works.

As seen from the results of the bibliometric analysis based on citation criteria of the works of leading authors from scientific schools worldwide, studying the eco-innovations of companies in their internationalization systems, the following authors should be highlighted: Korsakiene R., Ratten V., Gomes C., Khan Z., Montresor S., Horbach J., Dabic M., Kanda W.

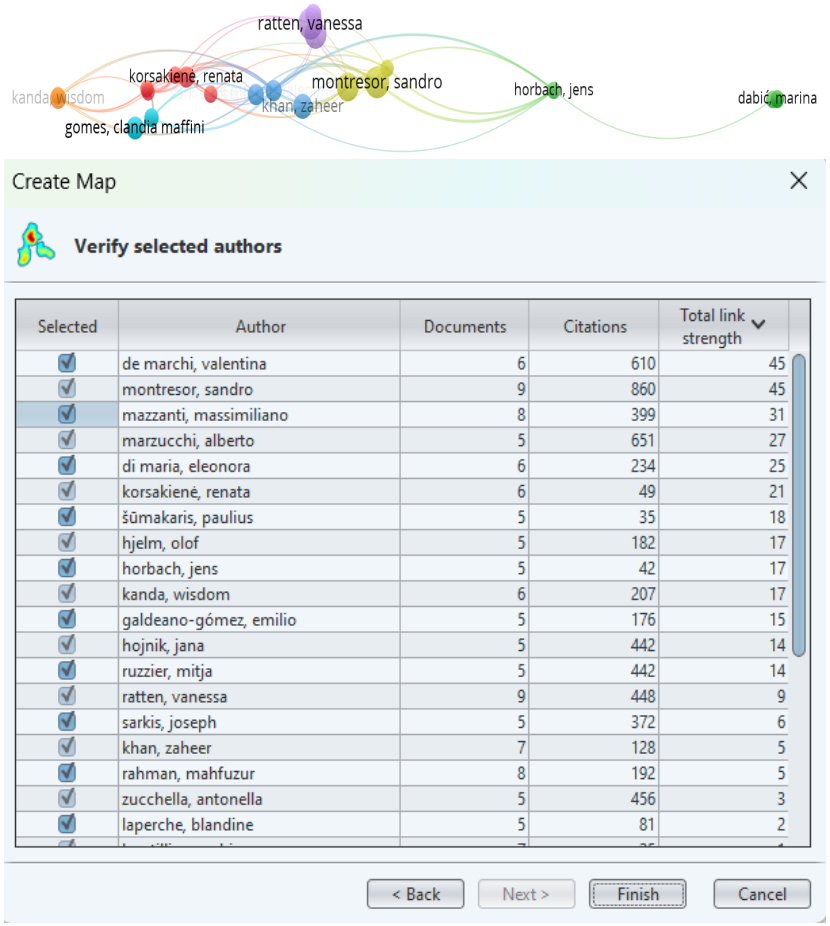


Figure 1. Bibliometric analysis based on citation criteria of the works of leading authors from scientific schools worldwide, studying the eco-innovations of companies in their internationalization systems (author's research based on the use of the Dimensions.ai database)

Source: [11]

It is also important to consider the time periods of the authors' publication activity in the field of eco-innovation internationalization (coupling of the works of key authors from scientific schools worldwide), as shown in Figure 3.

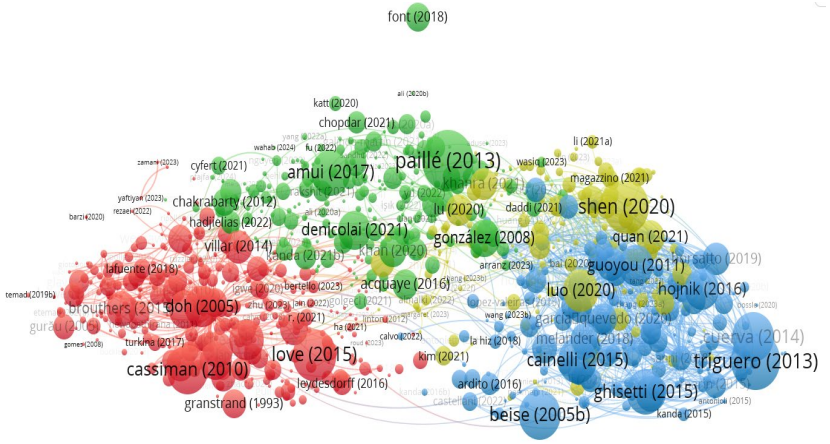


Figure 2. Bibliometric analysis based on the time periods of the coupling of works by leading authors from scientific schools worldwide, studying the eco-innovations of companies in their internationalization systems (author's research based on the use of the Dimensions.ai database)

Source: [11]

The bibliometric analysis based on citation criteria of the works studying the eco-innovations of companies in their internationalization systems in leading scientific journals worldwide is presented in Figure 3.

As seen in Figure 2, among the scientific journals in which articles on the eco-innovations of companies in their internationalization systems are published, highly-cited journals with high quartiles (Q1, Q2) are present, indicating the popularity of articles on this topic in high-ranking global journals. Let's examine the bibliometric analysis of the citation of works by authors from scientific schools worldwide, who are studying the eco-innovations of companies in their internationalization systems (Figure 4).

After conducting the bibliometric analysis of the citation of works by authors from scientific schools worldwide studying the eco-innovations of companies in their internationalization systems, it was established that the following countries, in order of decreasing contribution, are represented: China, Spain, Portugal, Italy, Germany, Netherlands, Malaysia, Finland, and other countries.

It is also necessary to examine the names of the major scientific and educational institutions of authors from scientific schools worldwide studying the eco-innovations of companies in their internationalization systems (Figure 5).

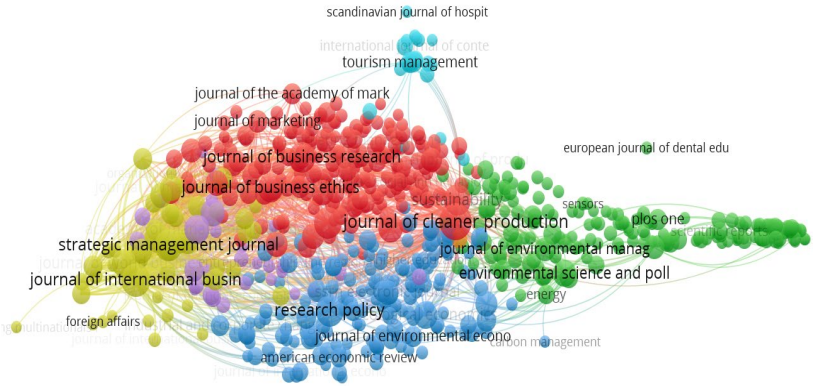


Figure 3. Bibliometric analysis based on citation criteria of the works studying the eco-innovations of companies in their internationalization systems in leading scientific journals worldwide (author's research based on the use of the Dimensions.ai database)

Source: [11]

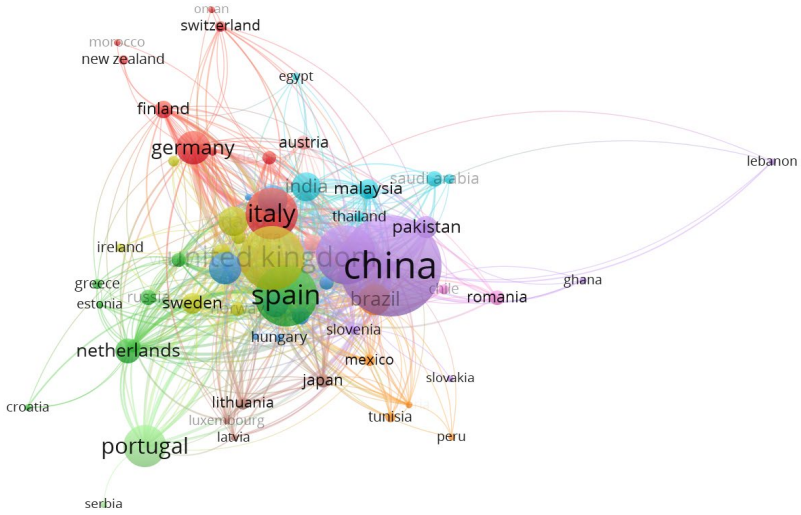


Figure 4. Bibliometric analysis of the citation of works by authors from scientific schools worldwide, who study the eco-innovations of companies in their internationalization systems (author's research based on the use of the Dimensions.ai database)

Source: [11]

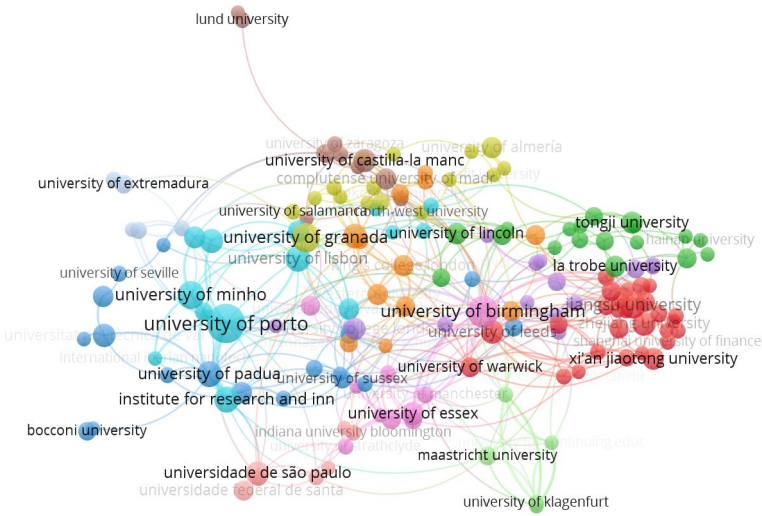


Figure 5. Bibliometric analysis of the scientific and educational institutions of authors from scientific schools worldwide, who study the eco-innovations of companies in their internationalization systems (author's research based on the use of the Dimensions.ai database)

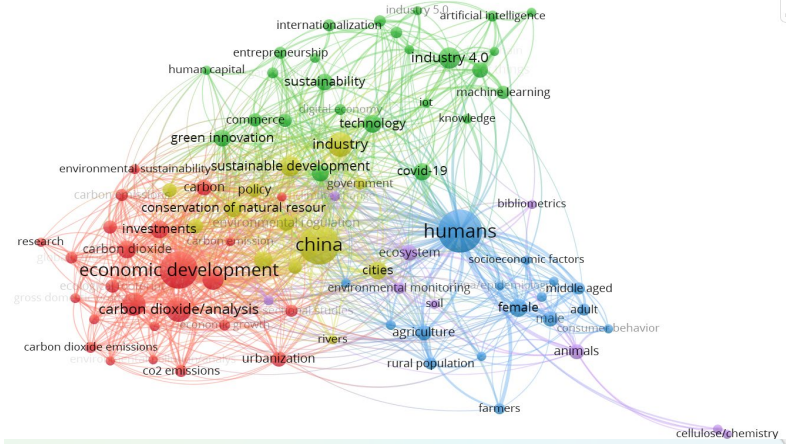
Source: [11]

Among the results of the bibliometric analysis of the scientific and educational institutions of authors from scientific schools worldwide studying the eco-innovations of companies in their internationalization systems, the following universities and research institutions should be mentioned: University of Porto, University of Micho, University of Birmingham, University of Essex, La Trobe University, and others.

Let's examine the keywords associated with the internationalization of eco-innovations by companies providing delivery services. The tabular format of bibliometric analysis results allows for a more comprehensive representation of keyword usage in research (Figure 6).

This may be necessary for forming project proposals and their applications by business entities when defining contemporary trends in development.

Let's proceed to define the procedural aspects of ensuring the internationalization of eco-innovations in the service delivery system in the context of post-war recovery of the country in the next section of the research.



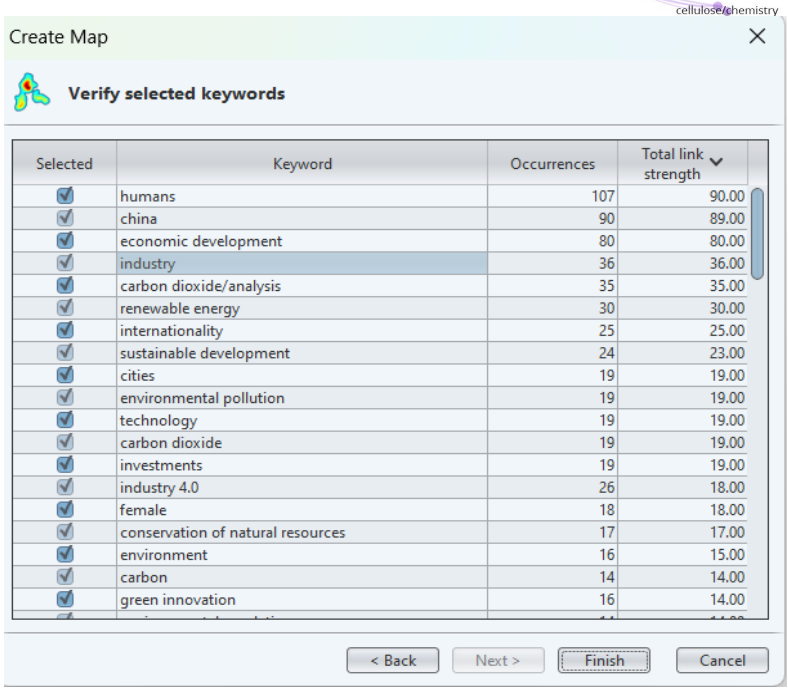


Figure 6. Bibliometric analysis based on keywords in the system of internationalization of eco-innovations by companies providing services (author's research based on the use of the Lens.org database)

Source: [12]

Chapter 2. Organizational support for the internationalization of eco-innovations in the service delivery system during the post-war recovery of the country

We will explore the procedural aspects of ensuring the internationalization of eco-innovations in the service delivery system during the post-war recovery of the country, taking into account the staged implementation of eco-innovation internationalization (Table 1).

Table 1

Procedural aspects of ensuring the internationalization of eco-innovations in the service delivery system during the post-war recovery of the country

Stages of Internationalization [13]	Eco-Innovation Technologies	Implementation of the Innovation in the Recipient Country
Domestic market. Implementation of goods and services in the domestic market	**Production of environmentally oriented goods and their sale on the domestic market** (green energy products, eco-friendly food industry products, electric transport)	Implementation of internal capabilities of national service platforms
Export of goods. Export of goods and services, with priority given to the domestic market	Implementation of export-oriented strategies and tactics for promoting eco-innovations in foreign markets, scaling the company through the competitive advantages of eco-innovations	Implementation of internal and export opportunities of national service platforms with a priority on internal capabilities
International market. Expansion of internal business processes to international markets	Opening of subsidiaries abroad, primarily trade houses, and the implementation of eco-innovation advantage strategies	Implementation of purely export opportunities of national service platforms
Globalization. Globalization of processes and the establishment of production facilities in other countries (transformation of business processes into an international corporation)	Establishment of eco-innovation production in different countries to optimize the cost structure of technological processes in the production of eco-innovations.	Implementation of franchise service platforms based on benchmarking principles
Transnational company. Transnational business processes of the company (independence in production and investment worldwide)	Independent production and distribution process of eco-innovations through global distribution channels and investment in eco-innovations in international innovation projects	Formation of a global corporation of service providers

Source: developed by the authors

It is also necessary to examine the tax support system for the internationalization processes of eco-innovations in countries during their post-war recovery, as tax levers are essential for balancing tax revenues from business activities and the development of the business itself within the framework of a balanced tax policy. These aspects are crucial for consideration by government authorities in shaping effective tax policies, which also aim to foster the development of service providers' businesses. The procedural aspects of tax support for the internationalization of eco-innovations in the service delivery system during the post-war recovery of the country and the factors influencing this support are provided in Table 2.

Table 2

Procedural aspects of tax support for the internationalization of eco-innovations in the service delivery system and influencing factors during the post-war recovery of the country

Stages of Internationalization [13]	Tax levers	**Influencing factors**
Domestic market. Implementation of goods and services in the domestic market	Implementation of a tax mechanism through tax payment by delivery service provider platforms	Normative, local
Export of goods. Export of goods and services, with priority given to the domestic market	Focusing on export opportunities and the formation of savings on zero value added taxes on the export of delivery services	Normative, export oriented
International market. Expansion of internal business processes to international markets	Consideration of international tax legislation when paying taxes and fees by delivery service providers platforms	Normative, institutional
Globalization. Globalization of processes and the establishment of production facilities in other countries (transformation of the company's business processes into an international corporation)	Transition to a corporate approach to tax payments, where all members of the corporation must pay taxes on income and social taxes as subjects of corporate legal relations in the field of delivery service providers	Normative, corporate
Transnational company. Transnational business processes of the company (independence in production and investment worldwide)	Consolidation of small businesses into medium-sized ones, forming transnational companies (fleet operators), with a transition to unified taxation for legal entities	Normative, transcorporate

Source: developed by the authors

Regarding the tax support for the internationalization processes of eco-innovations and the factors influencing these processes, an explanation is required. This internationalization primarily involves the consideration of benchmarking approaches to the implementation of tax legislation from countries with developed economic systems to a country with a transitional economic system during its post-war recovery.

Among the key principles of tax support for the internationalization of eco-innovations is the need to transition from the general tax payment by the service delivery platform to tax payments by all partners of the platform, converting them into business entities. This will allow for increased tax responsibility among all stakeholders in the internationalization process and enhance tax revenues for budgets at all levels.

As for the factors influencing the internationalization of eco-innovations, it is important to note the shift of the regulatory factor from a local subfactor to a trans-corporate one, which characterizes the processes of implementing the internationalization of eco-innovations by service delivery providers. It should be noted that in Ukraine, the regulatory factor is currently of a local nature, meaning that during the post-war period, the realization of purely internal capabilities of delivery operators occurs, with a focus on tax burdens on these operators. The issue of tax incentives from the operators' partners is currently unresolved. One could say that the project initiatives for converting partners of delivery operators into business entities remain solely at the project initiative stage within the parliamentary body. However, this mechanism needs to be developed and legislatively regulated, which would allow for additional revenue sources to be generated for budgets at all levels, thus characterizing the successful internationalization of eco-innovation services at the local level during the country's post-war recovery.

Let's move on to the development of a system of factors related to different stages of a firm's internationalization and its innovative development based on the works of scholars from scientific schools on eco-innovation and company internationalization [1–10] (Table 3).

As seen in Table 3, everything depends on the company's internationalization policy and the promotion of eco-innovations in external markets, taking into account the stimulating and deterring factors.

Table 3

System of factors related to different stages of a firm's internationalization and its innovative development

Stages of internationalization [13]	Eco-innovation technologies	Stimulating factor (+), de-stimulating Factor (-)
Domestic market. The implementation of goods and services in the domestic market.	Production of environmentally oriented goods and their sale on the domestic market (green energy products, eco-friendly food industry products, electric transport).	+ Economic (payment of taxes); + Social (new job opportunities); + Managerial (management and organizational improvements).
Export of goods. The export of goods and services, with a priority given to the domestic market.	Implementation of export-oriented strategies and tactics for promoting eco-innovations in foreign markets, scaling the company through the competitive advantages of eco-innovations.	+ Economic (increase in profits); + Innovative (advantages of technologies).
International market. Expansion of domestic business processes into international markets.	Opening subsidiaries abroad, primarily trade houses, and implementing strategies for the advantages of eco-innovations.	- Normative (national firms protection policy).
Globalization. Globalization of processes and establishment of production facilities in other countries (transformation of the company's business processes into an international corporation).	The creation of eco-innovation production in different countries with the aim of optimizing the cost structure of technological processes in the production of eco-innovations.	+ Economic (cost optimization); + Innovative (advantages of technologies); + Managerial (management benefits).
Transnational company. Transnational business processes of the company (independence in production and investment worldwide).	An independent process of production and distribution of eco-innovations through sales channels worldwide and investment in eco-innovations in international innovation projects.	+ Economic (increase in investments); + Innovative (advantages of technologies).

Source: compiled by the authors based on the systematization of [13]

Conclusions

It is important to note the main conclusion of the research, which includes the following tasks: the preconditions for the necessity of implementing the

internationalization of eco-innovations in the post-war reconstruction system of the country were considered; a literature review of works related to the promotion of eco-innovations in the national economy system and their internationalization was conducted; the procedural aspects of implementing the internationalization of eco-innovations using benchmarking technologies were studied; promising directions and organizational solutions for tax support of eco-innovation internationalization in the service delivery system were proposed, based on the experience of economically developed countries and the implementation of their successful practices in Ukraine's post-war reconstruction system.

It should also be noted that budget replenishment of a country during its post-war reconstruction is an extremely necessary task for the government. Therefore, the implementation of centralized responsibility for tax payment on entrepreneurial activities by all partners of delivery service provider platforms is a necessary step, indicating the systemic internationalization of service processes by business process publishers.

It should also be noted that the authors consider eco-innovations in the system of post-war reconstruction of the country as a radical shift to alternative energy sources in the delivery service processes, including the construction of electric vehicle refueling infrastructure and the creation of taxi fleets equipped solely with electric vehicles. As for the main economic effects of implementing the internationalization of eco-innovations in delivery services during the post-war recovery of the country, the authors believe that these include: an increase in tax revenues from delivery operators' partners and the optimization of transport costs for transcorporate service providers after business consolidation, by transitioning from traditional energy sources for transport (gasoline, diesel) to alternatives (electricity), which contributes to achieving the Sustainable Development Goals.

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