

*Електронний журнал «Ефективна економіка» включено до переліку наукових фахових видань України з питань економіки (Категорія «Б», Наказ Міністерства освіти і науки України № 975 від 11.07.2019). Спеціальності – 051, 071, 072, 073, 075, 076, 292. Ефективна економіка. 2024. № 4.*

**DOI: <http://doi.org/10.32702/2307-2105.2024.4.62>**

**УДК 336:368**

*P. Bechko,*

*PhD in Economics, Professor, Professor of the Department of Finance, Banking and Insurance, Uman National University of Horticulture, Uman, Ukraine*

*ORCID ID: <https://orcid.org/0000-0003-0928-4778>*

*S. Kolotukha,*

*PhD in Economics, Associate Professor, Department of Finance, Banking and Insurance, Uman National University of Horticulture, Uman, Ukraine*

*ORCID ID: <https://orcid.org/0000-0002-3614-5047>*

*O. Ponomarenko,*

*Postgraduate student, Lecturer of the Department of Finance, Banking and Insurance, Uman National University of Horticulture, Uman, Ukraine*

*ORCID ID: <https://orcid.org/0000-0003-3273-1150>*

*O. Trushevskiy,*

*Postgraduate student, Department of Finance, Banking and Insurance, Uman National University of Horticulture, Uman, Ukraine*

*ORCID ID: <https://orcid.org/0009-0001-3845-6527>*

## **ASSESSMENT OF INSURANCE SECTOR EFFICIENCY: METHODOLOGY AND APPROACHES**

*П. К. Бечко,*

*к. е. н, професор, професор кафедри фінансів, банківської справи та страхування, Уманський національний університет садівництва,*

*м. Умань, Україна*

*С. М. Колотуха,*

*к. е. н, доцент, доцент кафедри фінансів, банківської справи та страхування, Уманський національний університет садівництва, м. Умань, Україна*

*О. В. Пономаренко,*

*здобувач третього освітньо-наукового рівня вищої освіти (доктор філософії), викладач кафедри фінансів, банківської справи та страхування,*

*Уманський національний університет садівництва, м. Умань, Україна*

*О. О. Трушевський,*

*здобувач третього освітньо-наукового рівня вищої освіти (доктор філософії), Уманський національний університет садівництва, м. Умань, Україна*

## **ОЦІНКА ЕФЕКТИВНОСТІ СТРАХОВОГО СЕКТОРУ: МЕТОДОЛОГІЯ ТА ПІДХОДИ**

*The examination of extant methodological approaches in this article offers insights into the conceptualization and evaluation of insurance efficiency, both as a system and a socio-economic mechanism. This issue holds paramount significance, given the absence of definitive mechanisms to regulate this process. Assessing the efficiency of insurance carries substantial weight, extending beyond individual insurance entities to encompass comprehension of the insurance sector's influence on the broader economy of the nation and specific regions. The article provides a comprehensive examination of the contemporary issues surrounding the evaluation of insurance efficiency within the economic framework. It explores various viewpoints and approaches proposed by scholars to assess the effectiveness of the insurance sector and its individual components. The authors delve into the significance of evaluating insurance efficiency beyond mere economic gains, emphasizing factors*

*such as risk reduction, claims processing speed, customer satisfaction, and financial stability of insurers. Many researchers in the insurance industry believe that the evaluation of the efficiency of an insurance system should take into account both its social and economic efficiency, especially from the perspective of the state and the individual. However, the results of this study indicate that the efficiency of an insurance company should be based solely on its economic viability. This is supported by sound economic rationality, since the evaluation is based on the economic viability of the insured. In this context, a comprehensive evaluation using indicators of profitability, business activity, and financial stability is most effective.*

*The article further elaborates on the economic and technical features of insurance products, emphasizing the importance of customer preference, service quality, and product design. In conclusion, it suggests approaches to product development and personalized offerings as potential solutions to enhance the efficiency and effectiveness of the insurance sector. Overall, the article provides a comprehensive overview of the current state of the insurance market and offers valuable insights into potential strategies for improvement.*

*Аналіз існуючих методологічних підходів у цій статті дає можливість зрозуміти, як оцінюється ефективність страхування як системи та соціально-економічного механізму. Це питання має велике значення через відсутність чітких механізмів регулювання в цій сфері. Оцінка ефективності страхування виходить за межі окремих страхових компаній і охоплює розуміння впливу страхового сектору на економіку країни та окремі регіони. У статті проводиться комплексний аналіз сучасних проблем, пов'язаних з оцінкою ефективності страхування в економічному контексті. Досліджуються різні точки зору та підходи, запропоновані науковцями для оцінки ефективності страхового сектору та його складових. Автори розглядають значення оцінки ефективності страхування поза простою економічною вигодою, зосереджуючись на аспектах, таких як зменшення ризиків, швидкість обробки заяв, задоволеність клієнтів та фінансова стабільність страхових компаній.*

*Багато дослідників у галузі страхування вважають, що оцінка ефективності страхових схем повинна враховувати як їх соціальну, так і економічну ефективність, особливо з точки зору держави та окремих громадян. Проте результати нашого дослідження свідчать про те, що визначення ефективності страхових компаній має базуватися виключно на їх економічній життєздатності. Це підтримується надійним економічним обґрунтуванням, оскільки оцінка здійснюється на основі економічного потенціалу застрахованих осіб. В такому контексті найбільш ефективною є комплексна оцінка, що використовує показники прибутковості, ділової активності та фінансової стабільності.*

*Подальші розділи статті розглядають економічні та технічні аспекти страхових продуктів, висвітлюють важливість задоволення потреб клієнтів, якість обслуговування та дизайн продукту. У заключній частині запропоновано підходи до розробки продуктів та персоналізованих пропозицій як можливі шляхи підвищення ефективності та результативності страхового сектору. Загалом, стаття надає всебічний огляд поточного стану страхового ринку та важливу інформацію щодо можливих стратегій його вдосконалення.*

**Keywords:** *insurance efficiency, insurance industry, insurance market, insurance functions, micro- and macroeconomic assessment of insurance.*

**Ключові слова:** *ефективність страхування, страхова галузь, страховий ринок, функції страхування, мікро- та макроекономічна оцінка страхування.*

### **General statement of the problem and its link with major scientific or practical challenges.**

The assessment of efficiency within the insurance sector remains a pressing concern, necessitating a comprehensive examination of methodology and approaches. Currently, the absence of standardized mechanisms poses a significant challenge in conceptualizing and evaluating the efficiency of insurance as a complex system and socio-economic mechanism. This gap in regulatory frameworks underscores the

critical need for research and analysis to develop a nuanced understanding of insurance efficiency, crucial not only for individual insurance entities but also for grasping its broader impact on the economy at both national and regional levels. In addition to the absence of standardized mechanisms, the complexity of the insurance sector further complicates the assessment of efficiency. Factors such as varying regulatory environments, diverse product offerings, and evolving market dynamics contribute to the intricacy of evaluating efficiency within this industry. Therefore, addressing this challenge requires not only methodological refinement but also a nuanced understanding of the interplay between these factors and their impact on overall efficiency. Moreover, as the insurance sector plays a vital role in risk management and financial stability, ensuring its efficiency is crucial for promoting economic growth and resilience in both the short and long term.

#### **Analysis of recent research and publications.**

Such scholars as L. Shirinyan and A. Shirinyan [2] specialize in key performance indicators for insurance companies. They have developed methods for assessing the efficiency of insurance companies in the field of endowment insurance. V. Demchenko [5] explores different approaches to assessing the efficiency of insurance companies, especially in the context of endowment insurance. N. Bidnyk and V. Dzoba [1] emphasize the importance of developing voluntary insurance and the presence of medium-sized insurers, which contributes to the creation of healthy competition in the market. In addition, J. Klapkiv [4] confirms the need for a well-developed infrastructure and active participation of various insurance intermediaries in providing high-quality insurance services. Such researches contribute to the development of more efficient and competitive insurance models, ensuring quality services for consumers.

#### **Formulation of the article objectives (task statement).**

The study aims to thoroughly investigate the methodologies and domains utilized by contemporary scholars in assessing insurance efficiency, alongside crafting a structured framework for this evaluation. This framework will integrate commonly employed methods and approaches prevalent in insurance practice,

facilitating a comprehensive and systematic assessment of efficiency within the industry.

**Presentation of the most important research material, with a full justification of the scientific results obtained.**

In the contemporary context, the issue of evaluating the efficiency of insurance as an economic system is of growing scientific interest. Modern economic science has developed different views and approaches to evaluating the efficiency of the insurance sector and its individual segments. It is desirable to review the main concepts that reflect the views of national and international scholars on insurance efficiency and approaches to its evaluation. Some authors consider efficiency in insurance as when both the insurer and the insured benefit economically from having an insurance contract. However, this is just one part of what makes insurance effective. Other important factors include reducing risks, processing claims quickly, keeping customers satisfied, and making sure the insurer stays financially stable. So, while economic gains are important, they're not the only thing that matters in determining how well insurance works.

N.B. Bidnyk highlights the current inefficiency of the insurance market, attributing it to the limited presence of voluntary insurance, both in property and personal sectors, and a notable proportion of captive insurance. Bidnyk contends that this situation impedes the emergence of healthy competition [1]. According to Bidnyk, the effectiveness of insurance hinges on a robust presence of voluntary insurance and a prevalence of medium-sized insurers, which would mitigate market concentration and align market conditions closer to ideal competition. This stance is logical and well-founded, as the state of the voluntary insurance market reflects the demand for insurance products. Unlike compulsory insurance, voluntary insurance allows individuals to choose whether to utilize insurance services, making it a more objective indicator of demand. Moreover, a diverse array of financially stable companies fosters competitiveness among market players.

A. Shirinian suggests evaluating insurance effectiveness by considering its social impact across various levels:

1) assessing the efficiency of insurance as an industry involves examining its contribution to the GDP, employment rates within the industry, and similar metrics.

2) evaluating the efficiency of an insurance company as an economic entity focuses on the financial performance and indicators specific to the insurer itself.

3) examining the efficiency of the insurance product entails analyzing factors that gauge consumer satisfaction with the service provided [2].

This theory is noteworthy because it is logically constructed, includes qualitative aspects of efficiency assessment, and can claim to be a comprehensive approach. At the same time, it does not contain a deep economic justification for assessing the efficiency of insurance activities, but is mainly descriptive.

Y. Khrapkiv, studying the effectiveness of sales activities as a separate aspect of insurance, points out that effective operation of the insurance sales system is possible only through direct contact between the insured and the insurance company, and through the active participation of various insurance intermediaries, specialists and underwriters [3]. In the author's opinion, such insurance services are what customers consider high quality. One can agree with this view that one of the characteristics of an effective insurance market is a well-developed infrastructure that includes insurance intermediaries, actuaries, surveyors, and emergency commissioners. It is worth noting that the Surveyor is the inspector or agent of the insurance company who inspects and evaluates the property accepted for insurance and determines the extent to which an insured accident is likely to occur. The Emergency Commissioner determines the cause, nature, and amount of damage resulting from an insured accident (usually a traffic accident).

From this viewpoint, insurance schemes ought to be assessed according to their social efficiency, meaning their ability to fulfill their intended role. However, the majority of researchers in this field advocate for a methodology that evaluates insurance based on both its social and economic effectiveness, particularly from the perspectives of the state and individual citizens. Our research findings suggest that assessing the efficiency of an insurance company should solely be based on economic viability. This forms the foundation for economic models used in valuing insurers.

This theory is underpinned by a robust economic rationale, as it utilizes the economic potential of the insured individual in the assessment process. In such scenarios, the most effective comprehensive assessment of efficiency involves utilizing indicators of profitability, business activity, and financial health. However, these metrics should be calculated using conventional methods, without considering the unique characteristics of the insurer's operations. This is because the composition of assets and liabilities within an insurance company differs from that of non-financial sector enterprises, and employing traditional methods might distort the results. Given this, various methods are employed to evaluate the performance of individual insurers in practice. Typically, these assessments focus on analyzing the economic market to encourage the enhancement of insurance service quality. This improvement is evident in aspects such as accessibility, transparency, and promptness of claims settlement. However, it's important to ensure that the number of intermediaries remains reasonable, as an excessive amount could lead to increased costs for insurance services.

It's essential to differentiate between methods for evaluating insurance efficiency based on macro- and micro-level criteria. Microeconomic assessments focus on the insurer's priorities, whereas macroeconomic assessments consider the societal benefits of the insurance service. Consequently, distinct sets of evaluation criteria and methods are employed. At the micro level, areas of insurance efficiency assessment should be categorized as follows:

- Evaluation of the insurer's economic capacity;
- Evaluation of the insurer's financial capacity.

While this categorization is somewhat arbitrary, the primary distinction lies in the evaluation of economic potential, which involves analyzing indicators related to the insurer's core activities such as insurance portfolio, tariff rates, and quality of services. In contrast, the assessment of financial potential focuses on the insurer's financial resources, including equity capital, insurance reserves, and the efficiency of their utilization. Greater attention is directed towards macroeconomic trends and the challenges associated with their assessment, along with the factors influencing the

efficiency of the insurance sector in practical settings. In contemplating the necessity for a systematic approach to evaluating the efficiency of the insurance market, it becomes imperative to primarily consider the extent to which an insurance company fulfills its intrinsic functions. Consequently, the study facilitated the identification of various functions inherent in insurance as an economic system, including risk management, prevention, savings, investment, and social control and prevention. According to this classification, the study findings reveal that the first and second functions partly intersect, as they both pertain to safeguarding against risk and fostering savings. Among the functions deemed most effective for insurance companies are risk management, prevention, social protection, investment, and control. Consequently, the investment function within insurance companies' operations serves as a component in fulfilling the preventive function of insurance. It is justified by the fact that insurance companies are able to accumulate significant amounts of temporarily free financial resources within the precautionary funds, which can be effectively used to generate additional income. At the same time, it should be noted that the insurer makes investments not only from the precautionary funds. The main investments are made at the expense of insurance reserves and equity.

Some scholars employ different terms to describe the functions under scrutiny, yet their essence remains consistent. For instance, Y.M. Klapkiv views insurance as both an economic and financial mechanism, categorizing insurance functions into two groups: general functions inherent in insurance as an economic concept, and specific functions characterizing insurance as a component of finance. The first group encompasses: the establishment of a reserve fund (through this function, investments in diverse assets are conducted); indemnification for losses and material assistance to individuals (termed as the risk or protective function); and prevention of insured events and various measures to mitigate risks.

Upon initial examination, it appears that there are numerous functions, ostensibly encompassing all facets of insurance operations. However, a deeper analysis of their essence reveals that certain functions are intertwined with financial functions. Consequently, it is prudent to divide the functions of insurance into two

tiers within this framework, acknowledging insurance as both a component of the financial system and as an autonomous socio-economic mechanism.

The study findings indicate a lack of consensus regarding the delineation of functions of insurance as an economic category within national economic scholarship. However, nearly all investigations attribute paramount importance to the risk function, which embodies protective, compensatory, and restorative characteristics. We concur with this perspective, as evaluating the significance of insurance in the national economy necessitates an examination of all functions pertinent to society as a whole.

Therefore, the efficiency of insurance as a socio-economic system denotes its level of utility for society, demonstrated by the proper fulfillment of its inherent functions in a specific manner.

The effectiveness of the protective (risk) function primarily relies on insurance statistics, which encompass several key indicators:

- the extent of insurance object coverage, indicating the proportion of insured objects compared to their potential number (applicable to both property and personal insurance). This metric, measured on a national or regional scale, can be gauged by the number of contracts concluded and compared with other economic indicators;
- the level of insurance coverage, denoting the ratio of insurance payments to insurance premiums;
- the degree of insurance loss ratio, reflecting the proportion of the insurance indemnity paid to the sum insured of the affected insured objects.

The effectiveness of the preventive function is demonstrated by the scale and efficiency of preventive measures. Leveraging preventive measures to their full potential can diminish both the likelihood of insurance risks and the loss ratio. This function holds significant importance, aiming to enhance the quality of insurance coverage. The effectiveness of preventive measures can be assessed using the following indicators:

- the allocation of financial resources to relevant measures, which should be evaluated alongside the number of insured events and the amount of insurance payments. Therefore, it is recommended to examine the following insurance statistics: the proportion of affected objects relative to their total number of insured objects and the frequency of insured events, expressed as the percentage of insured events to the total number of insured objects. This metric reflects the frequency of insured events per insured object.
- the extent of damage to affected objects, indicated by the ratio of insurance payments to the sum insured of the affected objects. This measure illustrates the portion of insurance indemnity in relation to the sum insured of the affected objects.

Thus, with an increase in the amount of funding for preventive measures, the above insurance statistics should decrease. The existence and sustainability of this relationship should be assessed in the dynamics.

The effectiveness of the savings function in insurance is evidenced by the extent of development of endowment insurance. This function's effectiveness can be evaluated using the following indicators:

1. The proportion of life insurance, encompassing endowment insurance, within the insurance portfolio, assessed over time to examine its dynamics.
2. The level of payments categorized by type of life insurance.
3. The actual yield on accumulative financial products.

Previous research indicates that insurers possess considerable investment potential, which, under a prudent financial policy by the state, can be channeled towards investments in the real economy, thereby enhancing the profitability of insurance activities. However, the effectiveness of the investment function hinges on the availability of long-term insurance resources. This is feasible only in the presence of sustained demand for life insurance products.

Thus, the effectiveness of the investment function can be evaluated using the following indicators:

- the profitability of investments made by the insurance sector. This metric reflects the efficiency of insurance financial management and could potentially lead to lower insurance premiums, provided that the actual return on investment is satisfactory;
- the extent of diversification in insurers' investments. This involves analyzing the distribution of investments across various assets to ensure compliance with regulatory requirements, in comparison with foreign insurance companies, across different regions of the country, and over time;
- the volume of insurer investments per unit of insured sum or insurance premium, categorized by type of insurance;
- the proportion of insurer investments allocated to real assets versus income-generating assets.

From the standpoint of efficiency and the quality of interaction among insurance entities, it is pertinent to evaluate the effectiveness of insurance as a market mechanism. This assessment should encompass its critical components:

- the proportion of voluntary versus compulsory insurance;
- the equilibrium of regional insurance markets, considering factors such as premiums and payouts, types of insurance services and objects covered, and the demographics of insured individuals;
- the degree of development of the insurance market infrastructure and its collaboration with other market institutions;
- the level of competition in the insurance market, assessed through metrics such as the number of insurers and their concentration, particularly at the regional level.

Therefore, consolidating the accumulated experience in evaluating the insurance market's development underscores the importance of identifying certain criteria crucial for assessing its effectiveness. It is recommended to conduct such assessments within both the sectoral and territorial contexts.

- 1) Quantitative measures of the insurance market in its entirety, as well as within major segments, include insurance density, the extent of insurance payouts, and the proportion of voluntary versus compulsory insurance.
- 2) Involvement of insurers in investment and financial activities, particularly within regions. It is crucial to evaluate both the insurance market's contribution to the region's total savings and its participation in investment endeavors.
- 3) The ratio of regional insurance market development metrics, which indicates the level of alignment of insurance activities on a national scale. This ratio can be derived from comparing insurance metrics (such as the number of insurers, valid contracts, premium and payout amounts) with socio-economic indicators (like gross regional product, income levels, etc.).
- 4) Engagement in preventive measures, assessed by comparing insurers' expenditures on precautionary measures with the assets of companies operating in the region.
- 5) The level of competition within the insurance market, which plays a role in optimizing the volume and composition of insurance premiums and enhancing the quality of insurance services.

The effectiveness of an insurance company's Human Resources (HR) department significantly influences the adherence to theoretical functions of insurance. The future success of the company will largely hinge upon the quality of its HR department (Table 1).

Theoretically, the services provided by the insurance company are pivotal in identifying potential legal entities and individuals to engage in insurance and formulating a strategy for the company's future growth. Anything that can fulfill a desire or need and is offered to the market to capture attention, prompt a purchase, or encourage usage or consumption, can be considered an insurance product. It represents a specific collection of material benefits allocated from the insurance fund to compensate for losses incurred from an insured event that has already transpired, or to undertake preventive measures against insured risks.

**Table 1. Responsibilities of the HR department within the insurance company**

Responsibilities of the HR department	1. Research and analysis of the labor market
	2. Search and recruitment of personnel
	3. Forming a talent pool
	4. Organization optimization
	5. Developing and enhancing compensation structures
	6. Assessing the efficiency of compensation packages.
	7. Fostering a positive psychological environment.

In literature, there is often discussion regarding the similarities and distinctions between an insurance product and an insurance service. An insurance product primarily revolves around the insured object rather than the client, offering comprehensive insurance coverage tailored to specific client needs. Conversely, an insurance service represents the practical execution of specific offerings by an insurance company, thus being individualized and potentially comprising both core and ancillary services indirectly associated with a particular insurance product. An insurance service embodies the culmination of an insurance company's efforts to address customer needs concerning property and personal interest protection. It stands as a market offering within the insurance services sector and essentially serves as the focal point of insurance marketing. While the concepts of *insurance product*, *insurance service*, and *insurance commodity* share similarities, they also possess distinctions, establishing a certain hierarchy among them. At the forefront is the *insurance product*, which serves as the outcome of human endeavors aimed at providing economic protection against the ramifications of various accidental and foreseeable natural and social phenomena. This insurance product is then manifested in the form of services offering insurance protection or in the form of an *insurance service*.

**Table 2 . Economic and technical features of the insurance product**

Economic features	Technical features
<ul style="list-style-type: none"> <li>• The insured amount;</li> <li>• Franchise amount;</li> <li>• Insurance rate;</li> <li>• Insurance premium amount;</li> <li>• Investment returns and bonuses;</li> </ul>	<ul style="list-style-type: none"> <li>- level of provided guarantees;</li> <li>- franchise availability;</li> <li>- insurance regulations;</li> <li>- fulfillment of an insurance agreement;</li> <li>- payment terms for insurance indemnity (security).</li> </ul>
	<p><b>Quality features</b></p>
	<ul style="list-style-type: none"> <li>- establishment and sustenance of customer preference for the insurance company's brand amidst competition in the insurance market;</li> <li>- high-quality service;</li> <li>- external design of the product, including advertising media and packaging.</li> </ul>

**Conclusions.**

The research underscores that the insurance market is advancing towards a more sophisticated stage of development, with a strong emphasis on meeting the needs of policyholders while maintaining core insurance functions. However, the current state of the insurance market reveals a significant underutilization of its potential, primarily attributed to the prevalence of standardized products and the absence of personalized offerings. This trend has resulted in declining insurance premiums and a decline in overall market quality indicators. Present-day policyholder expectations highlight the importance of streamlined insurance processes, round-the-clock access to services, transparent information about products, and the availability of customized coverage options. Universal insurance products often fall short in meeting these demands, primarily due to their inability to adequately address specific needs or the high costs associated with them. As a solution, innovative approaches to product development, tailored to individual preferences, hold promise for revitalizing the insurance sector. By integrating innovative products, reducing service costs, and expanding offerings, the industry can better cater to policyholder needs and deepen its integration within the economy.

## Література

1. Бідник Н.Б., Дзюба В.Б. Створення кептивних страхових компаній як метод самострахування промислових підприємств. Вісник Національного університету "Львівська політехніка". 2011. № 704. URL: <https://ena.lpnu.ua/items/24a637b5-86b5-4dce-8a8b-348b81796c23> (дата звернення: 04.02.2024).
2. Шірінян Л.В., Шірінян А.А. Ключові показники ефективності функціонування страхового ринку для держави. Бізнес Інформ. 2019. №8. С. 158-164.
3. Шірінян, А.А. Ключові показники ефективності функціонування страхового ринку для покупців страхових послуг / А. А. Шірінян, Л. В. Шірінян // Проблеми економіки. 2019. № 3 (41). С. 226-232.
4. Клапків Ю.М. Ринок страхових послуг: концептуальні засади, технічні інновації та перспективи розвитку: монографія. Тернопіль ТНЕУ, 2020. 568 с.
5. Демченко В.М. Методичні підходи до оцінки ефективності діяльності страхових компаній у сфері накопичувального страхування. Соціально-економічні проблеми сучасного періоду України. Проблеми інтеграції України у світовий фінансовий простір. 2014. Вип. 1 (105). С. 131-135.
6. Кострач Л.М., Рудь Л.О. Тенденції розвитку страхових компаній в Україні. Збірник наукових праць Національного університету державної податкової служби України. 2015. № 2. С. 135-153.
7. Kenneth Ofori-Boateng and Elvis Kwame Agyapong (2022), "Efficiency, market structure and performance of the insurance industry in an emerging economy", Cogent Economics & Finance, № 10.
8. Erik Feyen and Roberto Rocha (2011), "What Drives the Development of the Insurance Sector? An Empirical Analysis Based on a Panel of Developed and Developing Countries", The world Bank. February 2011.
9. McKinsey and Company. "The productivity imperative in insurance" URL: <https://www.mckinsey.com/industries/financial-services/our-insights/the-productivity-imperative-in-insurance> (дата звернення 27.02.2024).

## References

1. Bidnyk, N.B. and Dzoba, V.B. (2011), "Creation of captive insurance companies as a method of self-insurance for industrial enterprises", *Visnyk Natsionalnoho universytetu "Lvivska politekhnika"*, [Online], vol. 704, available at: <https://ena.lpnu.ua/items/24a637b5-86b5-4dce-8a8b-348b81796c23> (Accessed 4 Feb 2024).
2. Shirinian, L.V. and Shirinian, A.A. (2019), "Key performance indicators of the insurance market for the state", *Biznes Inform*, vol. 8, pp. 158-164.
3. Shirinian, A.A. (2019), "Key performance indicators of the insurance market for buyers of insurance services", *Problemy ekonomiky*, vol. 3 (41), pp. 226-232.
4. Klapkiv, Y.M. (2020), *Rynok strakhovykh posluh: kontseptual'ni zasady, tekhnichni innovatsii ta perspektyvy rozvytku* [Insurance Services Market: Conceptual Foundations, Technical Innovations and Development Prospects], TNEU, Ternopil, Ukraine.
5. Demchenko, V.M. (2014), "Methodological approaches to assessing the efficiency of insurance companies in the field of endowment insurance", *Sotsialno-ekonomichni problemy suchasnoho periodu Ukrainy. Problemy intehratsii Ukrainy u svitovyi finansovyi prostir*, vol. 1 (105), pp. 131-135.
6. Kostrach, L.M. and Rud, L.O. (2015), "Trends in the development of insurance companies in Ukraine", *Zbirnyk naukovykh prats Natsionalnoho universytetu derzhavnoi podatkovoi sluzhby Ukrainy*, vol. 2. pp. 135-153.
7. Ofori-Boateng, K. and Agyapong, E.K. (2022), "Efficiency, market structure and performance of the insurance industry in an emerging economy", *Cogent Economics & Finance*, vol. 10.
8. Feyen, E. and Rocha, R. (2011), "What Drives the Development of the Insurance Sector? An Empirical Analysis Based on a Panel of Developed and Developing Countries", *The world Bank*, February 2011.
9. McKinsey and Company (2019), "The productivity imperative in insurance", available at: <https://www.mckinsey.com/industries/financial-services/our-insights/the-productivity-imperative-in-insurance> (Accessed 27 Feb 2024).

*Стаття надійшла до редакції 19.03.2024 р.*