RISK-ORIENTED APPROACH TO PROVIDING ECONOMIC SECURITY
TO CONSUMERS OF HOUSING AND UTILITY SERVICES: ANALYSIS
OF INTERNATIONAL EXPERIENCE AND MODERN IMPLEMENTATION PRACTICE

Abstract. The article demonstrates that modern threats to consumers of housing and utility services demand immediate and adequate measures for their prevention based on the application of risk-oriented approach. Having studied foreign and Ukrainian expertise, the topical issues of security management in various areas of economic activity have been considered on the basis of the risk-oriented approach, the current situation has been analyzed and methods and algorithms of problem solution have been defined. A wide range of measures based on the interconnected coordinated actions of the security subjects aimed at economic security provision for consumers of housing and utility services.

Keywords: risk-oriented approach, economic security, consumers of housing and utility services

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Annotação. У статті показано, що сучасні загрози споживачам житлово-комунальних послуг вимагають прийняття термінових і адекватних заходів щодо їх попередження на основі використання ризик-орієнтованого підходу. За результатами вивчення українського і зарубіжного досвіду розглянуто актуальні питання управління безпекою у різних сферах господарської діяльності на основі ризик-орієнтованого підходу, проаналізовано сучасний стан, визначено методи та алгоритми розв’язання проблем. Сформовано широкий набір заходів за взаємопов’язаними скоординованими діями суб’єктів безпеки з метою забезпечення економічної безпеки споживачів житлово-комунальних послуг.

Ключові слова: ризик-орієнтований підхід, економічна безпека, споживачі житлово-комунальних послуг.

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РИСК-ОРИЕНТИРОВАННЫЙ ПОДХОД К ОБЕСПЕЧЕНИЮ ЭКОНОМИЧЕСКОЙ БЕЗОПАСНОСТИ ПОТРЕБИТЕЛЕЙ ЖИЛИЩНО-КОММУНАЛЬНЫХ УСЛУГ: АНАЛИЗ МЕЖДУНАРОДНОГО ОПЫТА И СОВРЕМЕННАЯ ПРАКТИКА ВНЕДРЕНИЯ

Annotação. В статье показано, что современные угрозы потребителям жилищно-коммунальных услуг требуют принятия срочных и адекватных мер по их предупреждению на основе использования риск-ориентированного подхода. По результатам изучения украинского и зарубежного опыта рассмотрены актуальные вопросы управления безопасностью в различных сферах хозяйственной деятельности на основе риск-ориентированного подхода, проанализировано современное состояние, определены методы и алгоритмы решения проблем. Сформирован набор мер по взаимосвязанным скоординированным действиям субъектов безопасности с целью обеспечения экономической безопасности потребителей жилищно-коммунальных услуг.

Ключевые слова: риск-ориентированный подход, экономическая безопасность, потребители жилищно-коммунальных услуг.

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Introduction. One of the burning issues at the present-day stage of housing and utility services market transformation at the regional level, caused by the legislation, inflation, devaluation and other economic processes demanding particular attention of the society, is the radical change of the area management vectors and its orientation at consumer rights protection.

The speed and efficiency of distinguishing risks and threats in the process of housing and utility services generation or provision by the enterprises of this field as well as emergency response and adequate measures taken for the prevention purpose, are some of the primary tasks in providing
security to housing and utility services consumers. Thus, determination of approaches to providing economic security to consumers of housing and utility services in this field has been gaining particular importance and topicality lately. Undoubtedly, study of the foreign and Ukrainian expertise in applying the approach to consumers’ economic security provision will also foster elaboration and implementation of measures in this direction.

**Research analysis and problem setting.** The issue of providing economic security of various economic subjects is quite topical. Among domestic scientists who study this problematics, it is worth naming O. Aref’iev, T. Vasylytsiv, L. Hnilytska, F. Yevdokymov, A. Zakharov, S. Illiashenko, M. Kyzym, D. Kovaliov, H. Kozachenko, T. Klebanova, M. Kurkin, O. Liashenko, P. Pryhunov, O. Tyshchenko, V. Franchuk, L. Shemaieva, S. Shkarlet, V. Shlemko etc. Introduction of the risk-oriented approach in the processes of security provision was regarded in the works such domestic scholars as V. Vitlinskyi [1], N. Vnukova [2], I. Kuznetsova [3], I. Mihus [4]. However, it is worth mentioning that the issues of housing and utility services consumers’ economic security, which are becoming increasingly important in the current conditions of The Ukrainian economy, are not reflected in their works.

**The aim of the article** is the analysis of the international expertise of risk-oriented approach application in management and opportunities of its implementation in the process of providing economic security to consumers of housing and utility services.

**Research findings.** Modern consumers’ economic interests in the context of putting into effect strategic priorities of housing and utility services sector development stipulate passing a series of new regulations and amending the existing ones, namely:
- those that regulate the relationships that are formed in the process of providing and consuming of housing and utility services. New regulations will amend legislative acts, its terms provision aim covers improvements made to the regulation of relations in the housing and utility services and solution of priority tasks, which exist in this sphere [5];
- the order of counters installation by natural gas consumers [6];
- Order of the Cabinet of Ministers of Ukraine on formation of a public institution “Energy Saving Fund”, which will support initiatives as to energy saving, instruments implementation to foster and support measures for increasing the level of buildings energy efficiency, in the housing stock in particular, with account taken of the national plan for energy saving, carbon dioxide emission level reduction within the Paris Act, implementation of the Agreement for Energy Association Formation, Provision of Ukraine’s Compliance with International Obligations in the Energy Saving Sphere [7];
- the affirmed Procedure for applying funds allocated in the state budget for the Energy Saving Fund functioning, which defines the mechanism of applying funds, allocated in the state budget with accordance with the program “Energy Saving Fund Functioning” [8] etc.

Amendments to the legal framework for housing and utility services sector functioning are aimed at positive developments in the process of generation and provision of housing and utility services and consumers’ economic security provision. Regardless of this fact, the increase in consumers’ claims and their real amount of claims for utility costs reimbursement justify the inability of the abovementioned measures to provide full achievement of the set aims at the time being. According to the data provided by the Office for National Statistics of Ukraine, in the period from January to December 2017, 8202.5 thousand households applied for subsidies, which is 10.3% more than in the corresponding period of 2016. Since the beginning of this year, only 8809.3 thousand households were granted subsidies (107.4% of those that applied with account taken of those who applied in 2016, but were granted subsidies in 2017). The amount of such households increased by 1132.1 thousand, or 14.7% on the corresponding period of the previous year [9].

In the meantime, according to the consensus forecast of the Ministry of Economic Development and Trade for 2017-2020, utility costs in Ukraine are expected to increase by about 20% [10]. In particular, gas costs for residents are expected to rise by 19%, heating, hot water and electricity costs will rise by 20%. In the coming years, further increases are expected. It is forecast, that in 2019, the price of gas will go up by 12.5%, the price for heating, hot water and electricity
will go up by 17.5%. In 2020, gas and electricity prices are thought to increase by 10% and hot water and heating will increase in price by 19%. At the same time, import gas does not currently prevail in the energy balance of Ukraine unlike previous years, and two thirds of gas consumed in Ukraine are provided by means of equity production and there is still orientation at parity with the import price when tariffs are calculated.

Forecast by the Ministry of Economic Development and Trade justifies the necessity to implement a new mechanism of gas pricing. Liberal pricing policy at the energy market will put the housing and utility services consumers into an even bigger predicament. If energy market pricing principles will be in effect in energy tariffs formation, unrestrained increase in tariffs is inevitable. This will result in a decrease in manufacturing or an increase in noncompetitiveness of our yet insufficiently competitive products, which are competitive solely due to extremely low labour costs. Unrestrained tariffs growth will stimulate low labour cost conservation for the reason that the producer, both private and state, will be forced to increase energy costs and cut down on other expenses when making up an estimate.

Moreover, a negative trend such as a decrease in people’s purchasing power has formed itself. In accordance with the statistics [10], in the 3rd quarter of 2017, the amount of serviced rendered to consumers by service sector companies totaled 163,8bln UAH, which is 103,1% of the amount in comparable prices within the correspondent period of the last year. Furthermore, the services rendered to people amounted 24,2% of the total volume. Beginning with the 1st quarter of 2017 there has been a slow-down inservice rendering volume dynamics, which testifies reduction in purchasing power of Ukrainian citizens and corresponding reduction of paying capacity for a wide variety of products and services including housing and utility services (fig. 1).

The abovementioned trend has become the reason for a take-off in people’s indebtedness for the consumed housing and utility services. As of December 1, 2017, housing and utility services consumers had paid 8,9bln UAH, which equals 82,3% of the amount calculated for this period.

On the basis of the abovementioned examples of forecast variances and ways to overcome future economic problems, a conclusion can be drawn that neither approaches to housing and utility complex economic potential analysis and strategies of its stable functioning and general development, nor a single approach to economic security provision to its services consumers, have been elaborated so far, which is particularly important for Ukraine. This is influenced by a combination of specific factors determined by the specificity of the industry: the interconnection of financial, technical, social and political aspects, which have a direct impact on every resident’s interests, with a wide variety of sensitive issues in the housing and utility sector in general, which deal with the state of the housing stock, renewal of production and technical facilities owned by housing and utility firms, thermal resources and energy saving, provision of the adequate level of housing and utility services quality and acceptable consumption standards and their tariffs according to the income level of the population.

An attempt to eliminate the destructive approach to evaluation of the real situation in the housing and utility sphere was made in the process of approval of amendments to the National Strategy for Regional Development for the period up to 2020. Annual assessment indicators for the national regional policy aims until 2020 were introduced and the system of the abovementioned strategy monitoring and evaluation was put in line with the Law of Ukraine “On Basic Principles of State Regional Policy”.

Fig. 1. Growth (Decline) Rate of Rendered Services, % for the Corresponding Quarter of the Previous Year in Comparable Prices

On the basis of the abovementioned examples of forecast variances and ways to overcome
Indicators, the forecast values of which the strategy aims at, were introduced and they were coordinated with the basic forecast macro indicators of the country economic and social development for 2017–2020 as well as targeted indicators, which form the basis for the National Report “Aims of Sustainable Development: Ukraine”. Introduction of these amendments aims at the improvement of the system for monitoring and assessing implementation of the given strategy for the purpose of providing for the prompt regional development problems and their reasons determination, enhancing the efficiency of the management decisions of the central executive bodies, regional and Kyiv region state administrations in the sphere of regional development [9].

However, the housing and utility sector and other programs reformation concept proposed by the government includes a shift of responsibility for the situation in the housing and utility sector as well as for the expenses on its maintenance on consumers of services in the given sector. With regard to the people’s income and savings level, on the one hand, and the scope of the need in funding for life support systems maintenance and renovation, which have been brought to the crisis point in the last 20 years, this concept will not result in overcoming the crisis of the housing and utility sector, but in its exacerbation. On the grounds of the abovementioned analysis a conclusion can be made that a number of serious problems awaits Ukraine in the nearest future, which can have a negative impact on economic security provision for consumers of housing and utility services and the socio-economic development in general.

Measures that are being taken in the housing and utility sector to provide consumer economic security, backfire. This is primarily stipulated by the obsolescence of the ex-soviet single state housing and utility management, operation and control system, which presupposed subordination of the regional housing and utility objects to territorial regional state administrations, local self-government bodies and branch ministries.

It is worth noting that household owners being consumers of the housing and utility services consumers are currently made responsible for the state of the housing stock and utility connections as well as for the expenses on its maintenance on consumers of services in the given sector. With regard to the people’s income and savings level, on the one hand, and the scope of the need in funding for life support systems maintenance and renovation, which have been brought to the crisis point in the last 20 years, this concept will not result in overcoming the crisis of the housing and utility sector, but in its exacerbation. On the grounds of the abovementioned analysis a conclusion can be made that a number of serious problems awaits Ukraine in the nearest future, which can have a negative impact on economic security provision for consumers of housing and utility services and the socio-economic development in general.

In our opinion, it is possible to improve the situation in the housing and utility sector and this should be done by joint efforts of all subjects of the sector and sufficient scientific potential of the leading countries: it is necessary to develop the methodology for monitoring, analysis, risk estimation in the production process, and provision of housing and utility services based on consumer security probability analysis with the aim of prevention of threats to their economic interests and risk management in general with the perspective of its further implementation in the modern practice.

Present-day critical condition of the housing and utility sector result in the noncompliance with the living standards, a considerable increase in service provider / consumer expenses and, accordingly, an increase in tariffs, noncompliance with the quality standards by service providers, which decreases the level of consumer economic security and complicates the socio-political conditions in the society. In accordance with this fact, the issue of development of the risk-oriented approach (further – ROA) to housing and utility service consumers economic security provision is gaining considerable importance.

The main aim of ROA regardless of the sphere of its application lies in achieving the set goals at the expense of risk reduction. In comparison with the traditional control, high popularity of ROA is stipulated by the focus on high-risk areas, which enables timely prevention, detection and elimination of weaknesses and, thus, avoid negative effects of risk realization. The basic ROA principles encompass the following. Firstly, consumer security level definition via risk level, i.e. house and utility services consumer security is the acceptable risk level. Secondly, risk in every single case must cover all the sources, factors and conditions, which foster occurrence and development of danger. Thirdly, risk is uncontrolled event probability multiplied by its
consequences, and all measures of danger prevention must be distinguished by means of calculations coordinated with the experts’ experience.

It can be defined that in normative terms this notion is regarded generally and properly in the scientific literature and in practice. Properly, ROA covers management risks of the monitoring function. The example is risk management system in the financial sphere, which, unlike other economic spheres, regularly assumes risks with the aim of making profit for their bearing. This specificity of activity encourages banks, insurers and investment funds management companies not to avoid risks or minimize them, but to manage them in order to set adequate prices for their services (which influences credit interest rates, price securitites, insurance premiums). Specialized departments, whose task is solely risk management, handle professional risk estimates in financial companies.

Similarity of risk management departments and internal audit service (internal monitoring) work resulted in ROA gradually integrating into traditional audit, and, further, other types of control and supervision, state control inclusive. The example of can be 30-year international experience of ROA application in emergency prevention and its effects elimination. The essence of the given approach lies in estimating risks for every particular potentially hazardous object (PHO) with account taken of all the sources of danger as well as factors and conditions contributing to danger emergence and development. Security is, thus, referred to as the acceptable risk level and the risk itself is defined as uncontrolled event multiplied by its consequences.

International expertise analysis proves application of risk-oriented approach in various economic activity fields. Such countries as Switzerland and Norway successfully implement risk management in the sphere of state administration. Other countries also admit effectiveness of safety management systems with account taken of the risk-oriented approach. In particular, Japan and Canada allowed for the issues of employees’ health and life risk estimation and management within labour relations in their regulations with reference to national peculiarities of the economic activity.

Risk-oriented approach application with the aim of consumer economic security provision must be regarded not only as the mechanism of the particular financial resource formation in order to cover expenses and minimize risks (including bad decision making and implementation in the housing and utility sector), but also as the mechanism of formation of a wide range of measures and their realization based on interconnected coordinated action in housing and utility sector development strategic tasks solution.

Consumer economic security provision in case of ROA application encompasses the system of potential danger estimation for housing and utility services consumers in the process of its formation, provision or use with regard to risk criteria of harm infliction to consumers’ economic interests, and aims to solve the following tasks:

1) to provide for the proportional and intensive monitoring of the housing and utility sector state;
2) to emphasize and take into account housing and utility services sector problems, which are hazardous for consumers’ economic interests, in decision-making by executive bodies and sector ministries;
3) cut the amount of measures and cut down on funding low-risk objects for housing and utility services consumers;
4) provide for the sound and efficient use of funds allocated for the housing and utility sector functioning;
5) put into effect preventive measures in order to prevent breach of legislation in the housing and utility sector, which bear the highest risks for consumers;
6) encourage improvements to the quality of the living environment and provided housing and utility services.

ROA introduction in the housing and utility sector within the framework of providing economic security to consumers of services in the given sector demands security management system development. Preventing risks to housing and utility services consumers and utmost prompt and effective response in case of their emergence requires solution of a number of tasks.
Firstly, it is necessary to create conditions for qualitative and quantitative estimation of consumer risks, i.e. to distinguish the probability of certain events and situations in the process of generation, provision and consumption of a housing and utility service as well as consumer expenses caused by them. This task solution presupposes structural changes to local bodies for the purpose of security and creation of the institute of companies that will obtain licenses for risk estimation from state bodies. The next step must be the development of methodological provisions for risk-estimation companies and their accordance with those government bodies, from which they obtained the license for their activity.

The necessary element of the housing and utility services economic security management system is elaboration of a system for communication between estimation companies and consumers as well as local executive bodies for housing and utility sector functioning as to risk estimation results. Communication will also foster further monitoring of risk emergence sources by all the parties involved in the estimation process. At the same time, measures for uncontrolled situations and events emerging in the process of housing and utility service generation, provision and consumption as well as control systems for the discharge of responsibility in accordance with the current regulations in case of uncontrolled situations and events emergence and for their effects, must be elaborated.

It is worth noting that risk-oriented approach implementation in the housing and utility sector with the aim of consumer economic security provision will affect primarily the level and quality of housing and utility services. However, it will also influence such critical components of housing and utility sector management as solving tasks of organizational and methodological provision for risk estimation and management, state monitoring (control), granting benefits and reimbursement for the caused damage.

Realization of the task of improving the level of housing and utility services consumers protection from threats to their economic interests as well minimizing the risks and negative effects of housing and utility management decisions is possible only in case of complex solution of the task to form the modern information technology for housing and utility services consumers economic security system management as well as the analysis of threat development processes with account taken of optimization of events and situations monitoring frequency.

The major demands to the software for the given information system must be the advanced programming language, user-friendly interface and simple design as well as the consumers’ possibility to communicate with other subjects of economic security and decision making as to the housing and utility sector development or functioning as well as in real-time crisis situations.

Furthermore, ROA presupposes fundamental personnel training in security, in particular, elaboration of detailed recommendations for prevention or response to various types of risks and development of new training courses to teach students of higher municipal economy education establishments theoretical basics of housing and utility services consumers economic security.

The conducted research enables to draw the following conclusions. The risk-oriented approach to provision of economic security to housing and utility services consumers will enable to enhance the level and quality of the services provided by the sector. However, its implementation in the economic security management system demands not only the development of the scientific basis (methods, models, algorithms, calculation programs etc.), information technologies and the political initiatives well as amendments to the corresponding regulations.

Consumers’ activity and the will of the authorities to focus on and accumulate efforts for sector problems solution must be the powerful impetus for the implementation of the proposed approach because effective functioning of the housing and utility sector and immediate response to risks is only possible on condition of tight and fruitful cooperation of all the participants of the process of consumer risks and threats estimation when housing and utility services are provided.
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