

RISK MANAGEMENT STRATEGY IN BUSINESS ORGANISATIONS UNDER CONDITIONS OF MARTIAL LAW

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Purpose: the paper investigates the current scientific problem, that is the risk management strategy in business organisations, in particular, factors caused its types and introduction mechanism, implementation features and *priority areas* under the conditions of martial law as the example of Ukrainian business structures, which conduct their production activity under critical dangerous conditions connected with permanent rockets attacks on social and production infrastructure more than a year and a half.

Design/methodology/approach: The paper uses theoretical *methods*: analysis and synthesis, induction and deduction, abstraction and concretization, mental modelling, systematization and generalization, as well as empirical: observation, description, comparative analysis and social-economic statistics.

Findings: The social reconstruction of notions “risk”, “risk management” is made, and determined content, nature, functions, typological risk matrix, types of risk management in business organisations. The essential parameters and key factors of risk management strategy are justified, its subjects and objects are separated; the structure, mechanism and models of institutional and management actions of controlling subjects in the risk management system in business organisations are clarified. The attention is focused on strategic positions, methods, factors and ordinary events of *risk management* in business enterprises working under the conditions of martial law. The structure of *information-logical model* of strategic risk management is justified, as well as there are identified priority areas in Ukrainian business structures working under the conditions of full-scale aggression of Russian Federation against Ukraine.

Research limitations/implications: Promising areas of further scientific research is extended social efficiency diagnostics in introduction of information-logical model of risk management in business organisations under the conditions of Russian-Ukrainian war.

Practical implications: A research results may be used by directors or managers of various business structures, central executive authorities, regional or local authorities, as well as

scientific institutions and social services for optimization of management in critical dangerous situations, in particular, under the conditions of crisis or military conflicts.

Social implications: Results of scientific research are significant for social and economic meaning in context of use strategies and models of risk management in business organisations under the conditions of russian aggression in Ukraine.

Originality/value: Originality of this scientific research is a justification of information-logical model of risk management strategy in business organisations under the conditions of martial law, and identification its main priorities implementation by Ukrainian business structures during the full-scale aggression of Russian Federation in Ukraine.

Keywords: risk; risk management; risk management strategy; marital law; Russian-Ukrainian war; strategic models of risk management under the conditions of martial law.

Category of the paper: Research paper.

1. Introduction

Under difficult conditions of martial law caused by a full-scale military aggression of Russian Federation against Ukraine, each strategic managerial decision of a director of any business organisation (enterprise, facility or institution) is connected with a large scale of uncertainty, both external and internal environment. Wherefore, the problem of efficiency risk management strategy formation of all becomes urgent, without exception, Ukrainian business structures oriented to predication and prevention of risks related to regular rocket and artillery attacks to Ukrainian territories, in particular, social and industrial infrastructure. So, as of June 2023, the total amount of direct documented damages caused to infrastructure of Ukraine due to the full-scale invasion of Russia, is estimated as 150,5 billion US Dollars (according to replacement cost). The amount of damages in production infrastructure (transport, railroad infrastructure, road business, aviation industry and port industry) is 36,6 billion US Dollars. Business assets losses are estimated by the experts as 11,4 billion US Dollars. From the beginning of war, therefore from 24 March 2022, there are damages or destroyed at least 426 large and medium private enterprises and public companies, however, the number of destroyed enterprises may be rather more, therefore there is no information about objects located on temporarily occupied territories (Zagalna suma zbitkiw, 2023). It should be noted that during a year and a half of the military aggression, a large part of Ukrainian business entrepreneurs, regardless of daily dangerous of enemy attacks and bombing, were able to save, partially or in full, their business through evacuation to more secure regions, or through transfer it on war footing. But, an urgent need in development of business strategy oriented to stabilization of their production and economic activities in the long term under the conditions of martial law remains absolutely inquired. Then, the strategy of risk management in business organisations in this context is almost the only factor not only its competitive activity, but and

an important mean counteracting the unfavourable development of circumstances under the conditions of a long martial law.

It should be noted that the problem of risk management strategy formation in business organisations has begun actively researched by foreign scientists in the second part of XX century, and the inspire was the work of Harry Markowitz "Portfolio Selection", published in 1952 in the "Journal of Finance" (Markowitz, 1952). Basically, it became the key work in the area of investment portfolios optimization and risk management. The great advance in the notion of risks management in modern organisation was made by the leading specialist in management Peter Drucker, known as the father of modern management. His work "The Practice of Management" (1954) (Drucker, 1954). contains the original concepts related to efficient risks management in business. In 1996, there was published book "Risk Management and Derivatives" by David Garnish and Peter Plant covered various aspects of financial risks management, in particular, course of exchange risks and financial instruments (Chance, Plant, 1996).

Afterwards, foreign researchers studied the notions of risk concept, components and various stages of formation of the risk management strategy in organisations in works of I. Ansoffa, T. Barton, V. Bykov, V. Viatkin, V. Hamza, F. Maievskiy, K. Redkhed, K. Sio, A. Thomson, P. Waker, N. Khokhlov, Shenkir, and others. The problems of financial risk management were actively researched also by Polish scientists such as: M. Musial, E. Khlivka, A. Ziolk, L. Sokal. and others. The Ukrainian scientists study in full these problems, including scientific works of T. Andriieva, I. Verbytska, T. Holovach, V. Hranaturova, S. Klymenko, V. Kravchenko, Ya. Kryvych, A. Starostina, O. Taranukha, I. Fedulova, and others. Conceptual foundations of riscology in the context of solving tasks of social and economic or business activity of industrial organisations are analysed in the researches of V. Vitlinskyi and H. Velykoivanenko, but an issue on financial risks management is researched in works of R. Pikus, V. Kravchenko, and other scientists. But regardless of a large number of available researches in risk management formation and integration of it in the industrial enterprise activity, the issues of strategic risk situations management, as well as formation of risk management strategies in social organizations, industrial enterprises under the conditions of martial law implementation are left without attention of scientists. Therefore, the full-scale russian aggression lasts in Ukraine more than a year and a half, Ukrainian business structures forced to go through crisis and unpredicted conditions of regular bombarding and attacks, arising at moment and tactic experience in use the specific aspects of risk management, without having adequately adapted strategy. Because, the issue on identification the *risks management strategy* and analysis of its factors in the course of martial law is absolutely urgent and important for its stable and efficient activity. Thus, *the goal of this paper* is the identification of content and key functions of risk management strategy in social organizations, industrial enterprises under the conditions of martial law, as well as formulation of methodological approaches regarding this strategy formation in Ukrainian enterprises. The stated above goal provides for implementation the

following *tasks*: update a content, key stages and functions of risk management strategy; identification key models and methods to formalize strategic policy of subjects in risk management; study of methodological approaches in formation of risk management strategy in Ukrainian business organisations; detection the priorities in implementation of risk management strategy in Ukrainian industrial business structures under the conditions of martial law.

2. Methods

In the course of preparing and writing the scientific work, there was used a totality both general scientific methods of research (in particular, methods of analysis and synthesis, induction and deduction, abstraction and concretization, modelling, systematization and generalization), and special scientific methods to resolve research tasks, in particular, system, economic, demographic, sociological and statistical approaches, as well as analysis methods of documented sources, sociological diagnostics, social and cultural or axiological-normative analysis, and so on. Among empirical research methods, there were also used in work the methods of observation, description, comparative analysis or social and economic statistics.

It should be noted that the analysis of scientific literature assisted the identification of meaningful signs of risk category, structural parameters of risk management strategy and experience of Ukrainian business organisations in the context of formation and implementation of tactical and strategic factors management in business enterprises under the conditions of war. Study of statistical informative and scientific sources permitted to systematize and generalize the structure and functions of risk management strategy in business organisations, and identify the specificity of its implementation under the conditions of Russian-Ukrainian war. By using the sociological approach that is author's diagnostic observations of big industrial business organisations, there were identified the social and economic problems became apparent during military actions, and forced its management to search new methods of risks management with the purpose of going through difficult and non-standard conditions of martial law. A system approach assisted to search and allotment of a set of managerial decisions and approaches for improvement the risk management strategies in industrial enterprises under the conditions of martial law.

3. Results

It is quite difficult to suggest the receiving of a specific result without taking into consideration the possible deviation of it. Therefore, *a risk* should be interpreted not only as impact of uncertainty factors for achievement a specific goal, but as receiving specific results (or goals) in the course of which the management of organisation should, in advance, identify the possible deviation of them. That is, it becomes clear that *a risk* is a situational feature of social subjects activity consisted not only of its results uncertainty, but in possibility of unfavourable consequences. Therefore, *a risk* is always a probability of arising specific losses or reduction of incomes of any organisation in comparison with expected version. Study *a risk* on the merits, according to the analysis, is possible both statistical, and dynamic meaning. In statistic meaning, *the risk* is the way of its expression differentiated depending on its areas of order. Pursuant thereto, the *risk* divides into various types: political, economic, social, ecological, and so on. In dynamic meaning, *the risk* is the difference of its level allocation in proportion to expected losses due to arising of risk situation. So, the minimum level of unfavourable consequences is inherent to *acceptable risk*, medium – to *critical risk*, and the highest level – to *catastrophe risk* (Encyklopedyczny słownik, 2010, p. 621).

Therefore, *a risk* exists always in various forms, then and while, where and when a specific event or situation has not only practical importance, but affects the interests at least one subject of a specific social activity. Further, *a risk* does not exist apart of ownership on production means of material and spiritual welfare which require the determination of responsible persons for consequences of risk decisions. Strengthening of *risk* is a reverse of freedom in any business, therefore, a certain payment for it. Concerning *a risk* in management of enterprise, therefore, first of all, it means uncertainty connected with a real possibility of arising, while the controlling subjects implement their functions, or resolving by them unfavourable production situations and consequences expressed in incompleteness or inaccuracy of available information, as well as related losses and results.

On this basis, *a strategic risk*, to our point, is impossibility of senior managers of organisation to take into account competitors' behaviour in development of own strategy. But *a strategy* in any organisation, regarding *a risk*, is based on the strategy of its activity. And the more aggressive the strategy of a certain enterprise is, the higher target is, and higher risk will be. On aggressive strategy of organisation, the boundary of possible losses, as usual, the capital of enterprise, and on conservative strategy – the income of the last. In general, *a risk* in organisation company management is considered at least in four capacities: *first*, as situational nature of management activity consists of uncertainty the results, and possible negative consequences at failure; *secondly*, as a certain event or line of related accidental events resulting to losses and damages in the organisation; *thirdly*, as possibility of positive or negative deviations of organisation activity values of expected mid values; *fourthly*,

as probability of achievement positive or negative project result depending on nature of external and internal factors impact caused the uncertainty level of management activity. *Risk* in business organisation management, according to the analysis, is inherent proper features, such as: social and economic nature or objectivity of presentation; probability of implementation and uncertainty of consequences; negative consequences and graduation of measurability; instability and dynamism of consequences changing; assessment of subjectivity, difference level of completeness and correctness of information base (Menedżment: poniattnewo-terminologicznij słownik, 2007, p. 502).

The analysis also shows that *a risk* in management of business organisation is inherent a functional nature allows to disclose its sense in a more regular manner. For example, *innovative function* of risk stimulates a search of non-standard approaches to resolve risk situations, which the management of organisation faces; *analytical function* of risk causes the necessity to do scientific intelligences in identification alternative choices at making decisions in reduction of their level impact to organisation activity; *regulative function of risk* has conflicting nature and consists of *two forms*: f) constructive provided for reliever of uncertainty through introduction new ways, which break common stereotypes; b) destructive, which does not take into account the operations of objective common factors and available information about development dynamics of production processes and thing; *a protective function* of risk becomes apparent in ensuring a social and economic stability of the organisation, which makes possible to its management to make a justified risk in the course of implementation of goals of business enterprise activity.

The theory of *risk management* knows various types of risks, in particular, such as: production, commercial, financial, credit, business, investment, insurance and so on, which do not take into account a functional activity of modern business organisations (enterprises, institutions or facilities) working under the conditions of market economy and martial law. Therefore, there is offered a *typological matrix* of available risks based on functional areas of social and economic activity of business organisations of various types of activity and forms of ownership under the conditions of market economy and martial law, presented on the scheme in Fig. 1 (Tulenkov, Czepak, Yaremchuk, 2023, pp. 369-370).

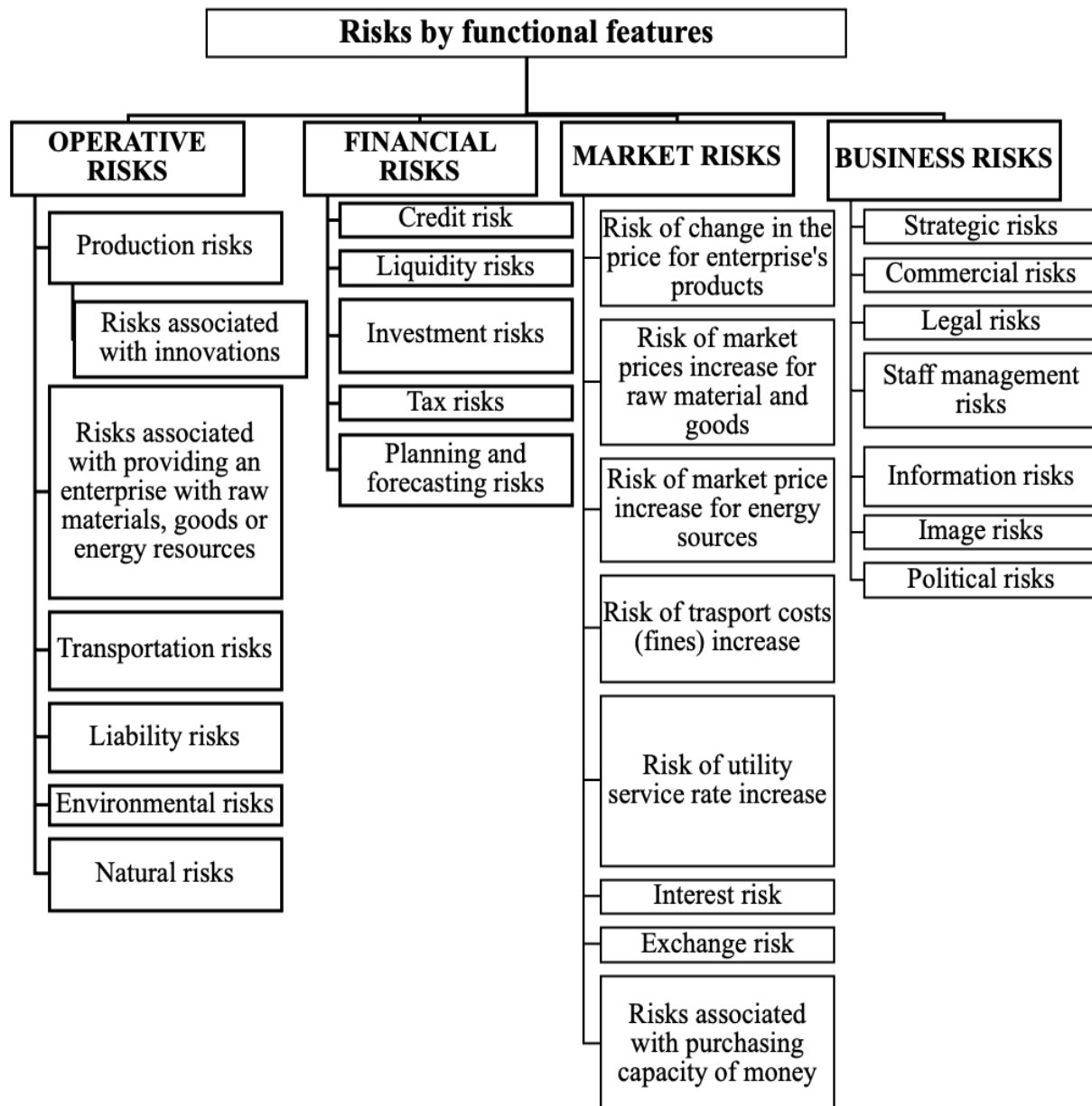


Figure 1. Typology of risks by areas of business organisations (Kovalenko, 2012).

As to the details of a notion “strategy”, this notion is not clearly interpreted in special scientific literature. So, for example, American researches M. Meskon, M. Albert and F. Hedouri believe that *a strategy* is a detailed thorough complex plan assigned for achievement a task and ensuring goals of an enterprise (Meskon, Albert, Xedouri, 1992, p. 231). Other researcher, A. Chandler, accentuates that *a strategy* is a determination of main long-term goals and tasks, as well as approval of the course of actions and resources necessary for achievement of goals (Chandler, 1962, p. 129). A. Thompson and A. Strickland make suggestions that *a strategy* is a plan of management of enterprise directed to strengthening its positions, satisfying the consumers requirements and achievement of target goals (Thompson, Strickland, 1998, p. 11).

However, the Ukrainian scientists, V. Ponomarenko, O. Pushkar, O. Trydid, point out the fact that *a strategy*, first of all, is a business concept in development of an enterprise for the stated strategic extension presented in a form of a long-term program of specific actions able to implement this concept and ensure competitive advantages in goals achievement (Ponomarenko, Pushkar, Tridid, 2002, p. 549). L. Fedulova and O. Zakharova state that *a strategy* is a combination (conformity) of resources and skills of an organization, on one side, and possibilities of risk received from external environment, on other side, working in the present or future, under which an organization expects to achieve its main goal (Fedulova, Zaharova, 2003, p. 43). Therefore, *a strategy* is the stated for a long period a set of expected standards, guides, directions, areas, ways and rules of activity ensuring a high-level competitiveness of organisation, strengthens its position on the market, as well as increases the capacity to go through conditions of tough competition (Tulenkov, 1997, p. 106). As to basically *a risk management strategy*, it always is directed on identification by a controlling subject some choices at making managerial decisions which are made, as usual, under conditions of restricted resources. Therefore, *a risk management strategy* in business organisation is not only the list of managerial functions and actions in the course of achievement the intended organisational goals. It is formed not only by senior staff, but runs through all activity of business organisation based on introduction of a sole coordinated approach to management of risk events and processes, and gives possibility to reduce their impact level to organisation. A *risk management strategy* in business organisation as a *management system of risk processes and situations* consists of two interrelated *sub-systems*: controlled sub-system (or controlled object) and controlling system (or controlling subject). Subject and object of risk management in any business organisation refill each other as subjects of mental and physical labour, therefore, management and executive activity of the members of organisation in preventing and implementation of risk situations. Herewith, *a risk management object* is various components and parts of a certain business organisation, which takes controlled subject impact, and subordinate its current activity to it requirements directed to resolve potential risks, risk contribution of capital or organization of social and economic relations between the participants of production processes in the course of risk implementation. At the same time, *a risk management subject* or controlling sub-system are directors and managers of various levels of organisation assigned the rights to make decisions in resolving risk situations, which, by proper methods, modes and ways of managerial impact ensure prevention and resolution of risk processes, as well as directed on functioning of controlled object or controlled sub-system in the whole (see fig. 2) (Tulenkov, Czepak, Jaremczuk, 2023, pp. 32-36).

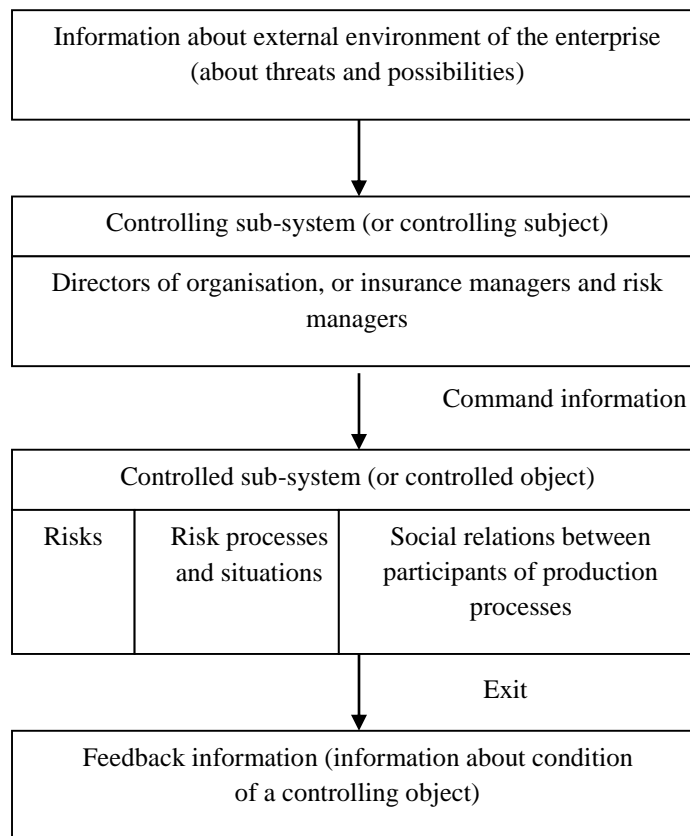


Figure 2. Flow scheme of a risk management in business organization.

4. Discussion

A risk management strategy means a certain direction and way to use by a business organisation management, available resources, especially, staff, material or financial for achievement strategic goals. A risk management strategy of this organisation as a set of crisis response measures, rules or restrictions, is more similar to the art of its guide in risk management under difficult conditions of unidentified economic situations, established not only based on a risk prediction, but using of efficient methods to reduce it, especially, under the conditions of martial law. Moreover, a formation of *a risk management strategy* in business organisations under the conditions of martial law is caused by instability of external environment and legislation; uncertainty of political, social and economic, humanitarian or military situation; discrepancy and inaccuracy of information holding by the management; uncertainty of goals orientation, interests and behaviour of subjects in management relations, change of authorities, significant destruction of infrastructure and so on (Encyklopedyczny słownik z dziedziny zarządzania, 2010, p. 621).

Thus, the generation mechanism of risk management strategy organisation in organisation includes certain measures and rules under which the anti-crisis decisions are made and adequate ways of risk events and situations resolution are determined (see fig. 3).

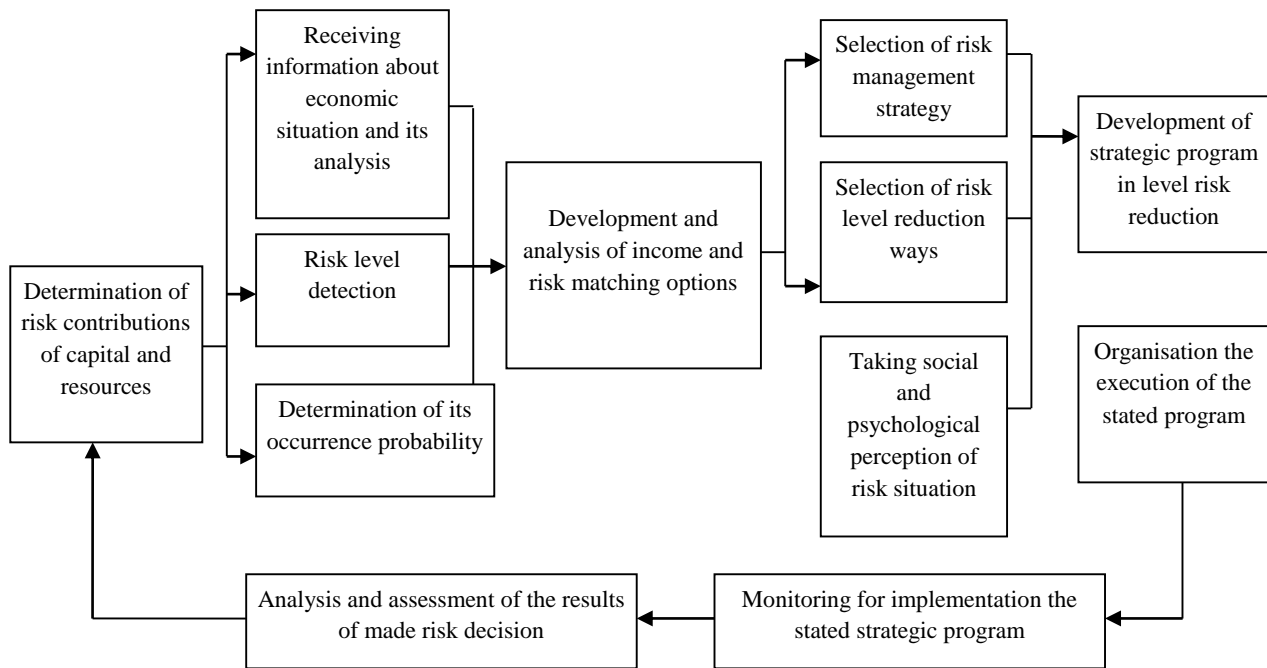


Figure 3. Generation mechanism of risk management strategy in business organisation.

However, the efficient *risk management strategy* of business enterprises, working under the conditions of martial law, is based not only on key principals of maximum catch, optimal volatility, result probability, reasonable combination of expected catch and risk rate, but includes the determined mechanism of institutional and management actions within the following stages: *at the first stage*, there is determined a risk with accompanying assessment of its implementation probability and the extent of consequences; *at the second stage* – the risk strategy is developed for reduction of risk implementation probability and minimization of possible negative consequences; *at the third stage* – the proper methods, means and guideline instruments are selected for management of found risk; *at the fourth stage* – risk strategy is implemented, therefore, a direct risk management is carried out; *at the fifth stage*, the achieved results are assessed, and, if necessary, the generated risk strategy is adjusted. As the most of researches think, the key stage in efficient risk management in business organisations is still the stage of selection of proper methods, ways and means for risk management.

Among the basic *risk management methods* in business enterprises, working under the conditions of martial law, according to the made analysis, the following *methods* are distinguished: a) risks avoidance; b) risk reduction; c) risk transferring; d) risk distribution; e) risk approval. Herewith, the modern risk instrument is more extended, and includes political, organizational, legal, economic, social instruments, and moreover, the risk management as a system allows a simultaneous use of some risk management methods at industrial enterprise.

But, the most used risk management instrument, in the period of martial law, as verified by the made analysis, is *insurance* (as the most efficient form of risk transferring). Insurance allows the liability transferring under indemnification of expected loss to stranger organisation (insurance company). Examples of other instruments may be: extremely risk activity avoidance (avoidance method); preventive measures, diversification or hedging (thus, the methods of risk

level reduction through distribution and combination); outsourcing of expense risk functions (method of transferring a part of enterprise functions or processes to strange executors on sub-contract terms); creation of reserves or stocks (approval method).

Therewith, *a risk management strategy* provides for planning and implementation of proper measures, which, on one side, provide for reduction of negative consequences level probability, and, on other side, increase the probability of positive results of business organisation activity in the course of the stated goals implementation. A risk management strategy in business organisation, under the conditions of martial law, stipulates the necessity to improve technologies of managerial decisions making, as well as methods of its implementation under the specific existing circumstances. Typical measures of risk management strategy in business organisation in prevention risk situations are contingency planning (method of stability system checking, method of project parameters adjustment, method of formalized uncertainty description); availability of coordination centre in the structure of organisation in the event of contingency; formation of mechanism in protection of organisation members interests, the participants of production activity and prevention of illegal or threatening actions by individual participants of production relations (Tulenkov, Czepak, Jaremchuk, 2023, pp. 397-399).

As we see, *the efficient risk management* in business organisation is evidence-based *risk management system* contains, first of all, the strategy and tactics of enterprise management directed on achievement the strategic, tactical or current goals in organisation activity. Accordingly, *the strategic risk management* at enterprise is oriented, mainly, to ensure the long-term stable existing of the organisation, from 5 to 10 or more years, which provides the identification of risk capacity levels and a certain “risk appetite”. These limit values are fixed in organisational provisions established the management standards for enterprise. The strategic risk management is implemented and controlled directly by the senior staff of any business structure.

However, *a tactical risk management* at enterprise is directed on implementation of risks management strategy by using proper methods, ways and procedures within from 1 to 3 years. This management is implemented by mid-level managers of organisation or a special committee in risk management, since *a tactics* determines specific and adequate methods and modes for achievement the stated goal under specific conditions. Tactics task in risk management consists of a selection of optimal decision and determination of the most acceptable methods of managerial affect in a specific situation according to identified risk tolerance level.

Operative risk management at enterprise provides for identification and quantitative and qualitative assessment of risk situations, implementation of managerial decision impact on risk processes, as well as control and monitoring over risks in the course of the organisation activity within from 1 month to 1 year. This management is carried out by low-level management or a special structural sub-division in risk management relying on daily activity of other sub-divisions. Risk and income, in this meaning, are interconnected and stipulate each other. Besides, large income causes large risks, and vice versa. Each controlling object within

administrative hierarchy of a certain organisation identifies its acceptable level of risk, and has the personal responsibility for it (Tulenkov, Czepak, Jaremchuk, 2023, pp. 309-315).

Therefore, a conceptual approach in generation a *risk management strategy under the conditions of martial law* consists of the following: *at first*, prediction and identification of possible consequences of production and economic activity in risk situation; *at second*, creation of adequate and certain measures in prevention or reduction of losses amount from unexpected risk circumstances impact; *thirdly*, implementation this risk management strategy at enterprise not only allowed to counteract by most operative way or compensate probable negative results, but make the best use of available possibilities in order to receive large business income. Herewith, *the efficient risk management strategy* is based on, as usual, three key factors: 1) rational system of risks management; 2) evidence-based system of identification and measurement of risks; 3) productive system of accompanying, monitoring or control over risk situations. Besides, *a risk*, within a risk management theory, is interpreted as probable event at which occurrence there may be positive, neutral or negative consequences. For example, if *a risk* allows the availability both positive and negative results, it is referred to *speculative risk*. If consequences are negative, or absent at all, this risk is called *net risk*.

So, the main direction of a risk management strategy in business organisation is a level increase of competitive activity of economic objects based on the protection against net risks implementation. Therefore, *a risk management strategy* in organisations, under the conditions of martial law, according to the analysis, should be based on *three* the following basic notions: usefulness, regression and diversification of production and economic activity of enterprise. Usefulness idea of risk management was studied in the middle of XVIII century by Swiss mathematician, D. Bernulli (1700-1782), who added the method of usefulness (or attraction) of certain events results to the probability theory. The idea of Bernaulli consisted of that human, at making decisions, pay more attention to the rate of various results consequences than its probability. However, English psychologist, F. Halton, (1822-1911), in the end of XIX century, proposed to consider a regression (or return) to a mid-level value as a universal statistical law. The sense of regression was interpreted by the scientist as a return of certain things to standard in due time. Later, there was proved that the regression law works in various situations starting from probability calculation of accidents, and finalizing with the prediction of tides in economic cycles. At the same time, the American economist, Nobel Prize winner, H. Markowitz (1927-2023), in the middle of XX century, mathematically proved his own strategy of investment portfolio diversification, thereby presented how to minimize income variance of expected value through considered distribution of contribution.

The results of made analysis also certify that in the course of formation *a risk management strategy in business organisation*, working under the conditions of martial law, there occurrence an issues in solution of dilemma “risk – income” implemented within two main strategic *models of risk management*, which formalize any strategy of controlling objects behaviour in the course of approval or implementation of risk decisions.

First strategic model of risk processes management under the conditions of martial law maximize the expected income by administration of organisation (I) with simultaneous restriction of risk level (R) based on establishment a maximum acceptable value (R max) (formulas 1 and 2):

$$F(I) \rightarrow \max, \quad (1)$$

$$R(x) \leq R \max. \quad (2)$$

This behavioural strategy of the participant of the market means conscious taking of a maximum acceptable risk by the administration of organisation in order to maximum increase of income owing to the following factors: favourable market position, progress trends of stable market or enterprise's possibilities to improve its positions on the market. The key task of risk management within this approach is exclusion of an acceptable risk transformation into critical or catastrophe risk which treats the economic entity existing, and leads to bankruptcy. Under such approach, there is developed not only a target value of income, but proper routine procedures in restriction of certain risks in form of the stated tolerance to available risks which the management of enterprise may face in the course of its activity.

The second strategic model of management of risk processes, under the conditions of martial law, means a minimization of risk based on holding the income value of organisation at a certain level not lower that the stated level (I min) (formulas 3 and 4):

$$F(R) \rightarrow \min, \quad (3)$$

$$I(x) \geq I \min. \quad (4)$$

This behavioural risk management strategy is applied when the amount of net income, expected or received by the enterprise, fits for its administration, and the main goal of which is stabilization of activity results in the whole. The management of organisation achieves this result through application adequate and balanced management methods and modes with available assets and liabilities. Formalized or non-formalized management strategies allow identify available risks that are on the way of one or other strategy implementation. The level of restriction on risks subject to use this approach is higher that proves the stated risk-appetite. Such strategy may be a consequence if there are low possibilities for enterprise development on the existing market, as well as in the absence of possibilities of the last to enter to new markets (Fedulova, Zaharova, 2003, pp. 65-66).

At the same time, the results of research in formation of strategic position of risk management in national business organisations, under the conditions of martial law, give grounds for description of *information-logical model* of strategic risk management allowing the administration of business organisation to implement an efficient mechanism of institutional and management functions execution directed on resolution of a set of issues connected with prediction, prevention, and, if necessary, resolution of risk processes, events and situations at the enterprise. This strategic risk management model in social organisations includes 26 (twenty-six) aggregative topical blocks of information, meaningful, assessment, normative, reference, methodical or calculation nature presented in scheme in figure 4 adapted by Kovalenko (2012).

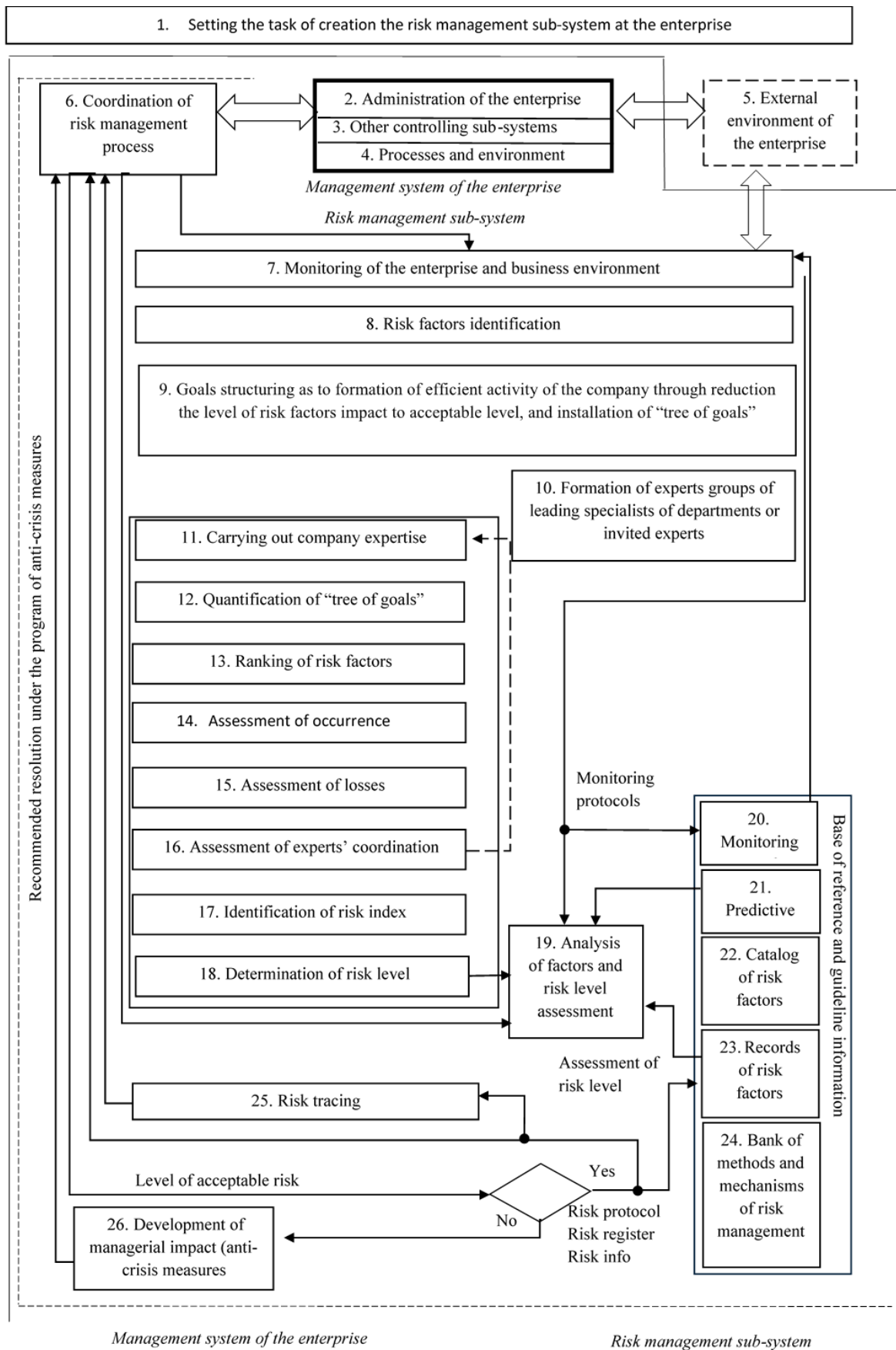


Figure 4. Information-logical model of risk management strategy (Kovalenko, 2012).

Block 1 provides for setting the task in creation, within the management system of industrial organization, a special sub-system of risk management headed by the Director of the enterprise or his/her Deputy. At this stage, the ideas are generated, and proper decisions on attraction and selection of correct ideas made based on which the tasks are set.

Blocks 2-6 present the business operation system of the enterprise, which directly interacted with external environment of organisation (block 5), and ensures the coordination of risk management at the enterprise (block 6).

Blocks 7-9 is a complex of proper measures under which the monitoring over the activity of enterprise and environment is implemented, determination and identification of internal and external risk factors, making of a tree of goals for the organisation focused on increase the probability of its efficient activity by reduction of the impact level of risk factors to a level accepted to the administration of organisation.

Blocks 10-19 contain various procedures of analysis and assessment of scale, types and difficulty level of risks, in particular, the following: expert groups, quantification of the tree of goals, ranking of risk factors, assessment of its probability, level identification, and so on.

Blocks 11-18 establish an original methodical body of sub-system of risk management of the enterprise ensuring the expertise and assessment of risks arising in the course of the enterprise operation.

Blocks 20-24 make a unified data base of meaningful, normative reference and methodical information about risk things, processes and situations, which, in the course of the operation of risk management sub-system of the enterprise, is formed and gained within each block of this model, and transferred for storage and use during the risks management at the enterprise.

Block 25 ensures a protocol inspection of risks (arising during the enterprise activity), its fixation under nine main factors detected at ranking (block 13), as well as additional inspection (blocks 14-18). This data composes the so-called rating sheet (block 9), which consists of due list of the most critical parameters of risk situations on every assessed target point (or direction) sent to the management of organisation for coordination of risk management processes (block 6).

Block 26 ensures the formation of controlling impact of the management of organisation on risk situations through making anti-crisis measures, and preparing, approval and implementation of reasonable managerial decisions in prevention of undesirable risk events development and reduction of its level at the organization, as well as reduction of losses value to prior accepted values (Kovalenko, 2012).

It should be emphasized that a testing of information-logical model of risk management strategy demonstrated that it used, in full or partial, by a management team at Ukrainian enterprises under the conditions of martial law. Ukrainian business structures (as opposed to business organisations of other countries) faced with serious challenges determined by military aggression of Russian Federation against Ukraine, in particular, loss of the sales market, tight credits, calling employees to armed forces, electrical power deficit and regular rocket and

artillery attacks not only near-front regions, but almost all regions of Ukraine. According to the European Business Association (EBA), 83% of Ukrainian companies-members of the Association had a business decline in 2022. Herewith, 29% of them had a decline by 20%, and more than a half had a decline by 21% and more. And only 6% of polled companies did not feel negative changes, and 11% of companies had increase of income in this difficult year. According to the experts' assessment, the total amount of direct losses of enterprises (including state enterprises) is 13 billion US dollars during the year of full-scale war, and the total indirect losses are more than 33 billion US Dollars. However, it is necessary almost 25 billion US Dollars to recover enterprises. Generally, the national economic collapse in Ukraine, as of 2022, is unprecedented 30.4%, and consumer inflation is 26.6%, meaning that increased goods and services prices by a fourth average. There was significant national currency devaluation – from 29 UAH/US Dollar before invasion up to 40 UAH/US Dollar (Žirij, 2023).

Herewith, the full-scale invasion of Russian forces into the territory of Ukraine posed the entrepreneurs of all regions of country not only before the risk of business loss, but destruction of their industrial capital. Spelling destruction with rockets attacks of enterprises enforced the entrepreneurs in the zone of military actions (or on the temporarily occupied territories during the first months of the war) to find an opportunity to remove their enterprises to more secure West regions of the country. So, during the first two months of the war, 1171 Ukrainian enterprises were evacuated. Over 400 companies, in full or partially, transported their production capacities, and only 216 of them restarted their operation. In addition, about 500 entrepreneurs were founding secure sites to place their production capacities. The places of location became at least 8 regions (Zakarpattia, Lviv, Ivano-Frankivsk, Ternopil, Khmelnytskyi, Chernivtsi, Volyn and Rivne regions) in the Central and West Ukraine (Olenin, 2022). And during the first year of full-scale war (as on March 2023), over 800 enterprises were transferred under the relocation program to secure region, and 623 of them restored their operation at once on a new place (Za rik vijni..., 2023). Therefore, the enterprises relocation was important step of risk management in business organisations at the beginning of war, which assisted to save a significant number of national business structures.

Regardless of regular military actions and threat of destruction, the Ukrainian business organisations adjusted bit by bit dangerous challenges of military time; thereby they started to use, except the relocation, other priority strategic direction in its risk management strategies. For example, introduction the strategy of weigh up risks *management*. According to Yu. Atanasov, the CEO of CentraVis company, the one of the largest global producer of seamless stainless steel pipes, which production capacities are located in Nikopol, the town living and functioning in terms of chronic rocket terror of occupants, “the war regularly provokes new challenges and tests the business's strength. Reality reveals that you can lose your own safety at any time; is a high risk to lose property due to regular rocket attacks; are risks of new attacks on energy infrastructure; there is increase of enterprises, which cannot execute its obligations” (Atanasov, 2023). Therefore, it is highly important to identify possible risks, analyse its

occurrence probability, predict priority works with it, respond effectively to conditions under which can occur, as well as keep continuous control over situation. And the most important, it is necessary analyse regularly and assess risks security-wise, this is the highest priority for every business organisation functioning.

The important part of risk management strategy in Ukrainian business organisations during the war, according to the made analysis, is a production diversification that is an issue of more diversified product line, expansion of sales geography, increase sales exports, first of all, to the European Union. Using certain privileges provided for Ukrainian business by the European Union, the Ukrainian business organisations try to maintain business foreign contacts formed before the war (Žirij, 2023). At the same time, many Ukrainian business enterprises began use actively such the latest strategy as turnaround to arms industry. As stated by *Yu. Husiev, the CEO of the Concern "Ukroboronprom"*, which attracted about 100 new companies during the year of war, which did not produce anything for armed forces before. As a result, about 6 thousand of new employees were engaged; developed cooperation with regional military administrations under which the industrial enterprises of regions began actively perform tasks for military industrial complex; implement a program in production and repair of equipment at safe locations; repairs old soviet and captured military equipment given by foreign partners of 14 countries, with whom there were signed 33 international treaties on cooperation (Mi zobowiazani zrobiti wsio..., 2023).

The success implementation of risk management strategy during russian aggression is impossible without stable team with "culture of regular improvement", which ideas have their origin from Japan enterprises during the economic recovery after the Second World War, and proved with efficiency of the following companies: Toyota, Nissan, Canon, Honda. These companies management could survive during the economic crisis, and hold stable positions on the market up to the present. The management of Ukrainian business structures choose the same priority, since the war forces regularly review the anti-crisis plan and business processes ensuring constant enterprise operation (Atanasov, 2023).

The current hybrid war is based, basically, on a system information base of business organisations, especially financial, loss of which means, first of all, loss of economy at all. Therefore, the implementation of digital risk management at business structures, first of all, in bank facilities of Ukraine, became one of the basic priorities of risk management. For example, the largest bank of Ukraine "Privat", kept the clients' confidence and stable during the war owing to a careful work of IT-business specialists who transferred its IT structure to a cloud storage, and then rolled out and launched all important programs and services of the cloud storage for 45 days, however, during "usual" project cycle, this work could take no less than 1.5 year. As said the Head of the Board of PrivatBank, Herhard Biosh, "according to a classical model of risks management, a war is "red" zone when banks do not finance economy, or do it with caution, increased credit risks and necessity to form reserves for them.... PrivatBank did not stop crediting as of the war beginning. The volume of business credits is not

reduced, but increased. For nine months of 2022, we have supported the national economy through development of farm and business credit programs – almost by 10 billion UAH, and through increase individuals' credit for 4.3 billion UAH” (Stabilnist ponad use..., 2022). It became possible due to implementation of a new for Ukrainian business structures strategy of digital risk management covered in fact all bank and industrial structures of Ukraine which continue to hold “financial front” in a year and a half.

5. Summary

Therefore, the results of research of strategic factors of risk management in business organisations, under the conditions of martial law, allow make the following *conclusions*:

Phenomenon a *risk* in the area of organisations management is a situational activity description of any social subjects consists of uncertainty of its result, as well as the occurrence of negative consequences, and allows interpret this phenomenon as objective probability of occurrence certain losses or income reduction of any industrial organisation in comparison with predicted version.

The risk in management of organisation is studied in four key meanings; (1) as a situational description of management activity, which consists of uncertainty of results, and possible negative consequences if default; (2) as a certain event or a line of similar casual events resulted in losses and damages in organisation; (3) as possibility of positive or negative values deviation in organisation activity from the predicted average values; (4) as probability of positive or negative project result achievement depending on nature of impact of external or internal factors caused the uncertainty level of management activity.

The risks management strategy means a proper way use available resources by the management of organisation, especially, human, material or financial resources in the course of achieving strategic goals. This method is complied with the risk management strategy in organisation, thus the stated list of rules and restrictions as to approval of anti-crisis decisions. The risk management strategy of any organisation likes more the art of its guidelines in risk management under the conditions of unidentified economic situations based not only on risk prediction, but introduction of efficient methods of its reduction, especially, under the conditions of martial law.

Strategic risks under the conditions of martial law, according to the analysis, may very quickly cause significant damage to any organisation, for example, they are able to damage significantly used nets of supply of raw materials, infrastructure, technologies, staff, capital, reputation, basic corporate values, and so on. They still are out of the most programs in risk management industrial enterprises, since it is difficult predict, measure, control and manage. Therefore, in order to efficient resolving of various risk situations, the administration of

organisations should introduce the system of strategic risk management with inherent guidance instruments for the system analysis of strategic risks, monitoring changes and visualisations of its data.

The strategy of efficient risk management in industrial organisation is based on three main factors: 1) rational system of risks management; 2) scientific proved system of identification and measurement of risks; 3) productive system of accompanying, monitoring and control over risk things, processes or situations.

The formation of strategic risk management position at national enterprises under the conditions of martial law is carried out through implementation of adequate *information-logical model* of the strategic risk management, which allows the management of organisation to introduce an efficient execution mechanism of organisational and managerial functions oriented on solution of long-term and current topical issues connected with expectations, warning, and, if necessary, resolving risk processes, events and situations at the enterprises, which consists of 26 aggregated topical blocks of information, meaningful, assessment, normative, reference, instructional and calculation nature, and is based on the following priorities: 1) relocation (displacement of business) from the zone of military actions, near-front zone or temporarily occupied territories to more secure regions of the country; 2) weigh risk management, which takes into account realities of the full-scale war; 3) production diversification, in particular, expansion of good and service range, search of new sales markets, in particular, manufacture of military and defence products; 4) “stable management team” with “culture of regular improvements” in any areas of business regardless of the martial law; 5) introduction of digital risk management ensuring the transferring of information base of business structures to a cloud storage within a short time, which assist to save and use it at further business. Whereas, russian aggression in Ukraine continues, the Ukrainian business organisations face to new threats and challenges, but received practical experience in introduction of various risk management strategies within the year and a half of war, should not only actively be used, but regularly be improved based on the latest developments and innovative projects in the area of modern theory and practice of a strategic risk management.

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