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PROACTIVE STRATEGIES FOR BUSINESS RESILIENCE

The article explores proactive strategies for ensuring business resilience, with a particular focus on their application by Ukrainian enterprises during wartime conditions. The relevance of the research is determined by the urgent need for companies to adapt rapidly to unprecedented challenges and to establish mechanisms for long-term stability. It is hypothesized that proactive resilience strategies are a key determinant of successful business adaptation to extreme conditions, as they not only reduce risks but also transform crisis factors into strategic opportunities and competitive advantage. The methodological framework is based on comparative and systems analysis, case studies, and synthesis, which provided a combination of theoretical interpretation and practical generalization of Ukrainian business experience. The findings confirmed that resilience involves not only the ability to recover but also adaptive transformation and organizational learning. The scientific novelty lies in conceptualizing business resilience as a multidimensional dynamic capability that integrates strategic foresight, adaptive transformation, and organizational learning.

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ПРОАКТИВНІ СТРАТЕГІЇ ЗАБЕЗПЕЧЕННЯ РЕЗИЛЬЄНТНОСТІ БІЗНЕСУ

Досліджено проактивні стратегії забезпечення резильєнтності бізнесу з акцентом на їх застосування українськими підприємствами в умовах війни. Актуальність теми зумовлена необхідністю швидкої адаптації компаній до безпрецедентних викликів та формування механізмів довгострокової стійкості. Висунуто гіпотезу, що проактивні стратегії резильєнтності ϵ визначальним чинником успішної адаптації бізнесу до екстремальних умов, оскільки вони не лише знижують ризики, але й трансформують кризові фактори у стратегічні можливості та конкурентні переваги. Методологічною основою стали компаративний і системний аналіз, кейс-стаді та синтез, що забезпечили поєднання теоретичного осмислення та практичного узагальнення досвіду українських компаній. Результати дослідження підтвердили, що резильєнтність охоплює не лише здатність до відновлення, а й адаптивну трансформацію та організаційне навчання. Наукова новизна отриманих даних полягає у концептуалізації резильєнтності бізнесу як багатовимірної динамічної здатності, що



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The practical significance of the results is reflected in the development of an algorithm for building business resilience strategies and recommendations for integrating resilience principles into management systems. The findings may be used both by company managers and by government institutions designing policies for business support. The limitations of the research are associated with the specificity of the Ukrainian wartime context, which requires further comparative research at the international level. Future research prospects include extending the analysis to other industries and countries, which will contribute to developing a generalized model for ensuring business resilience.

Keywords: proactivity, resilience, crisis, proactive business resilience strategy, resilience models, adaptation.

інтегрує стратегічне передбачення, адаптивну трансформацію та організаційне навчання.

Практичне значення дослідження полягає у розробленні алгоритму формування стратегії резильєнтності бізнесу та рекомендацій щодо інтеграції принципів стійкості в систему управління. Отримані результати можуть бути використані як менеджерами компаній, так і органами державної політики підтримки бізнесу. Обмеження дослідження зумовлені специфікою українського воєнного контексту, що потребує подальших порівняльних розвідок на міжнародному рівні. Перспективи подальших досліджень передбачають поширення аналізу на інші галузі та країни, що дозволить сформувати узагальнену модель забезпечення резильєнтності бізнесу.

Ключові слова: проактивність, резильєнтність, криза, проактивна стратегія резильєнтності бізнесу, моделі резильєнтності, адаптація.

JEL Classification: M14, M30, M31.

Introduction

In wartime, the national economy develops inconsistently, revealing significant discrepancies between actually used and potentially possible resources, which are influenced by deep-seated factors limiting development – echnological and institutional barriers. According to international organizations, Ukraine's real GDP in 2022 fell by approximately 29% (Grigorenko, 2024), which was a consequence of military operations, occupation of territories, destruction of infrastructure and mass population outflow. Despite a partial recovery (real GDP growth of ~5–5.5% in 2023), at the end of that year, Ukraine's economy remained approximately 25% lower than the pre-war level (compared to 2021) (Samoilyuk & Levchenko, 2017). According to the forecasts of the Ministry of Economy, Environment and Agriculture of Ukraine, the recovery of the national economy will continue, as the expected GDP growth in 2025 will be only 2.7% (Reuters, 2025). The war caused direct damage to Ukrainian infrastructure of over 150 billion USD and created reconstruction needs estimated at approximately 486 billion USD per decade (Rakic, 2024). Inflation has become another challenge: if before the full-scale aggression consumer prices were growing by ~10% year-on-year, then in October 2022 inflation peaked at 26.6%. By mid-2025, annual inflation remained in double digits (~14% in June, 2025). Logistics and foreign trade have also undergone dramatic changes, as trade flows have been reoriented to railways, roads, and Danube ports (Pindyuk, 2022). Real GDP is expected to return to pre-war levels only in 2030.

Disruption of traditional supply chains, resource shortages, destruction of transport infrastructure, reduced consumer solvency, exchange rate fluctuations, security risks and limited access to external markets necessitate strengthening the adaptive potential of business to proactively

respond to environmental changes and implement flexible management solutions. In this context, the issue of developing and implementing proactive strategies to ensure business resilience as the ability of an enterprise to withstand destructive external influences, quickly restore its functioning after crisis events and adapt to new conditions, while maintaining the integrity of the system and realizing the potential for further development (Duchek, 2019), becomes relevant. During the war, the ability to resilience became a critically important condition for the preservation and functioning of a business, as it radically transformed the structure of risks and approaches to their management. While during relative stability, businesses focused primarily on predictable market risks and macroeconomic fluctuations, in times of war, business entities faced existential challenges: physical destruction of infrastructure and assets, threats to personnel lives, loss of logistics and supply chains, cyber threats, institutional uncertainty, etc. As a result, the business environment is extremely turbulent and unpredictable, and therefore, traditional models of anti-crisis management have proven ineffective. In such conditions, businesses had to not only react to events ex post facto, but also proactively prepare for the implementation of the most pessimistic scenarios.

In the context of war, the phenomenon of resilience needs to be rethought. While in the pre-war period it was mostly viewed as the ability of an organization to "survive a crisis and return to its previous state of functioning," it is now becoming obvious that returning to the status quo may be both impossible and impractical. Thus, the approach to resilience as the ability not only to adapt to new conditions but also to transform, defining new directions for development, is being updated. As tourism business researchers rightly note, war creates "almost impossible conditions for survival" for the industry, while at the same time stimulating enterprises to increased flexibility, innovation, and reorientation of activities in accordance with the changed context, in particular, by meeting humanitarian or defense needs (Tomej et al., 2023).

The war has been a major driver of big changes in how businesses work, accelerating the introduction of digital technologies, the development of alternative energy sources, the creation of adaptive supply chains, the diversification of sales markets, and the formation of strategic financial and resource reserves. In response to the challenges of security and infrastructure instability, a significant part of enterprises quickly migrated their IT infrastructure to cloud environments and implemented remote work models. This was facilitated by the support of leading global technology corporations. Microsoft and Amazon provided Ukrainian state and private institutions with tools to quickly transfer critical IT systems from local servers to the cloud environment. This became a key factor in ensuring business continuity in the face of shelling, cyberattacks, and physical threats to infrastructure (Sánchez & Torreblanca, 2023). Proactive measures – migration of critical data to secure data centers outside of active combat zones – have allowed many banking institutions, telecommunications companies and government registries to avoid loss or destruction of information even in the event of physical

destruction of office infrastructure. Faced with new challenges, Ukraine has simplified regulatory requirements for data storage outside the country and established strategic partnerships with global technology corporations, including Microsoft, Amazon and Google. The result has been a large-scale transfer of government and corporate information arrays to cloud environments, which has ensured the continuity of critical functions of the government and business sectors.

In such circumstances, the Ukrainian IT industry has demonstrated a high level of organizational resilience, which, according to the definition of Andrew Zolli and Anne Marie Healy, reflects the ability of the system to withstand shocks, restore functionality and use the crisis for evolution (Zolli, 2012). Leading outsourcing companies EPAM, SoftServe, Sigma Software, Eleks and others promptly implemented plans to relocate teams from frontline regions to safer areas or abroad, which allowed to maintain operational capacity, ensure contract fulfillment and stable foreign exchange inflows into the country's economy.

A striking example of the resilience and adaptability of the digital sector was the continuation and development of the special legal regime "Diia.City", introduced by the Ukrainian government a few weeks before the start of a full-scale war in order to stimulate the development of the IT industry. Despite the military risks, this regime was not only not curtailed, but also demonstrated dynamic growth. As of the beginning of 2023, the number of its residents exceeded 380 technology companies – both Ukrainian and international. Among them: Reface, Monobank, MacPaw, Ajax Systems, Revolut, EPAM, Genesis, SoftServe, Sigma Software, Rozetka, Luxoft and others. This indicates that IT businesses, even under martial law, continued to invest in development, assessing the long-term potential of the country and demonstrating confidence in the state digital policy. In addition, a number of companies adapted their activities to current security challenges, in particular: Ajax Systems – a manufacturer of smart alarm systems – reoriented part of its production to create sensors for detecting drones and fires, while Reface launched initiatives aimed at combating Russian disinformation. Such a transformation of business models indicates the ability of the IT sector not only to remain viable, but also to contribute to strengthening national security through innovation.

We agree with experts who emphasize the need to shift the management focus from traditional risk management to the formation of long-term strategies for organizational resilience (Duchek, 2019). This involves integrating the principles of strategic resilience into all levels of company management. In particular, this is a systematic, proactive formation of structures, processes and resource provision that allow the organization to proactively adapt to destructive challenges, support business processes of operational activities under any circumstances, ensure the protection of personnel, the preservation of critical assets and reputational capital.

Analytical understanding of cases of organizational resilience and adaptability of Ukrainian business gives grounds to assert that approaches to risk management of domestic companies have undergone a significant evolution: from reactive response to crisis events to proactive prediction and prevention. Businesses are increasingly implementing business continuity strategies that take into account military risks, diversifying supply chains, creating reserves of critical resources, investing in physical and cybersecurity, and organizing backup offices and communication channels.

Thus, the full-scale war that has been going on since 2022 has radically transformed the conditions for doing business in Ukraine, bringing to the forefront the problem of ensuring its resilience. Under these circumstances, the study of proactive strategies for ensuring business resilience acquires special scientific and practical significance, as it allows not only to generalize the unique experience of crisis management in war conditions, but also to form conceptual principles and practical recommend-dations for increasing the resilience of the business environment in the future.

The theoretical basis for the study of business resilience, which has been formed over the past two decades, is undergoing a rethinking in modern conditions under the influence of the destructive challenges of full-scale war. Despite the growing scientific interest in this phenomenon, the academic literature still lacks a generally accepted definition of the concept of "organizational resilience", which first began to be actively used in the early 2000s. Of particular importance in this context is proactive management behavior, focused on proactive response to risks. As Bateman and Crant (1993) note, proactive behavior involves independent, future-oriented actions aimed at changing the situation or creating a new one. In unpredictable conditions (for example, during war), it is not enough to simply react – survival depends on the ability to predict violations before they occur.

A similar position is held by scientists Frese and Fay (2001), noting that companies with proactive organizational cultures not only adapt to crisis circumstances, but also prepare for them in advance, experimenting with alternative solutions at an early stage. This is especially important in war conditions, when traditional approaches to risk management prove ineffective.

A significant contribution to the development of the theoretical foundations of organizational resilience was made by Lengnick-Hall et al. (2011), who were among the first to emphasize the need to consider resilience as a dynamic capability of an enterprise – the ability not only to respond to crisis events, but also to use them as an impetus for growth, transformation and discovery of new opportunities.

Within the resilience paradigm, Boin and van Eeten (2013) distinguish two key forms of resilience – precursor resilience and recovery resilience, which reflect the stages of preparation for a crisis and a return to stability after it. At the same time, Williams et al. (2017) propose an integrated model in which crisis management is gradually transformed into a process of post-crisis resilience development through organizational learning during and after the crisis period.

Summarizing the existing approaches, Linnenluecke (2015) demonstrates the fragmentation of the scientific discourse on resilience between several research areas: from the analysis of organizational responses

to external threats and theories of high reliability organizations to the study of the flexibility of business models and vulnerability management practices in global supply chains.

In a study on small and medium-sized enterprises, Pertheban et al. (2023) proved that proactive resilience strategies – in particular, production flexibility, supply chain diversification, scenario planning – significantly increase the performance of companies, especially when combined with ambidexterity. The latter is understood as the ability of organizations to simultaneously effectively use existing resources and opportunities (exploittation) and explore new directions for development (exploration).

It is obvious that business proactivity in wartime is a critically important factor in survival, adaptation and potential development. In conditions of constant uncertainty, business viability is determined not only by the ability to predict threats, but also by the ability to create new opportunities based on proactive strategies: reducing costs, finding alternative sales markets, protecting the domestic market, maintaining consumer demand and preserving human capital as a strategic resource for post-war reconstruction. The national report "Preservation and Development of Ukraine in War and Peace" states that the parameters of post-war revival will largely be determined by the system's ability to identify new opportunities and adequately respond to future challenges, risks, and threats (Pyrozhkov et al., 2024). Research into proactive resilience strategies requires identifying which management approaches contribute to the proactive identification of risks, the ability of enterprises to withstand crisis shocks, recover with minimal losses, and in some cases, use the crisis as a catalyst for innovative development. In view of this, it can be stated that the empirical experience of Ukrainian business in 2022–2024 confirms the effectiveness of proactive resilience strategies. Companies that promptly implemented measures to form financial reserves, decentralize production capacities, digitalize processes, and rethink logistics models not only ensured business continuity, but in a number of cases also strengthened their competitive positions in the market. At the same time, a significant part of enterprises that did not have proactive anti-crisis planning suffered significant losses or ceased operations.

Thus, the challenges of post-war reconstruction of Ukraine actualize the need for a deep scientific analysis of proactivity as a key factor in the formation of resilience. This, in turn, requires an expansion of the spectrum of research within the framework of management theory, strategic and crisis management, with an emphasis on transformational processes caused by the war.

The aim of the research is to determine the essence of proactive business resilience strategies and conduct a praxeological analysis of their manifestations in the conditions of war in Ukraine in order to substantiate the methodological principles of their formation.

The hypothesis is put forward that proactive resilience strategies are a determining factor in the successful adaptation of business to extreme

conditions, since they not only reduce risks, but also transform crisis factors into strategic opportunities and competitive advantages.

The information base of the research is scientific works on strategic management, organizational resilience, risk management, as well as analytical reports of international organizations and Ukrainian expert centers on the economic state of Ukraine in the conditions of war. Comparative analysis was used to clarify the concepts of "resilience" and "proactivity"; system analysis was used to assess the impact of war on the functioning of enterprises; historical-logical method was important to study the trends in the formation of resilience strategies; case study method was to study examples of successful business adaptation; synthesis method was used to generalize recommendations for the implementation of proactive strategies in this research.

Innovation of the research lies in the systematization and refinement of the conceptual apparatus regarding proactive business resilience strategies, as well as in the development of recommendations that take into account the specifics of the Ukrainian context and the experience of business functioning in wartime.

The limitation of the research is the incompleteness of open data on the economic indicators of individual enterprises in wartime, which resulted in a limited volume of empirical analysis. Prospects for further research lie in expanding the empirical base for a detailed analysis of the effectiveness of various proactive strategies in long-term crisis conditions, as well as in studying the regulatory impact on the formation of business strategies in emergency situations.

The main part of the article has three sections: the first reveals the essence and meaning of proactivity in the context of resilience formation; the second analyzes the impact of the war on the business environment of Ukraine and reveals key transformational changes in the context of resilience strategy formation; the third section presents methodological principles for the formation of proactive business resilience strategies.

1. Proactivity in the context of resilience building

Proactivity, i.e. the ability to act preventively, plays a key role in shaping the resilience (resistance) of an organization to negative impacts. In the scientific literature, business resilience is defined as the ability of an enterprise to anticipate, absorb and adapt to disturbances while maintaining its core functions and competitiveness (Biswakarma & Bohora, 2025). A proactive approach means taking active actions before crisis events occur – identifying potential risks, planning scenarios and implementing protective measures in advance. Research confirms that proactive strategies (for example, increasing the transparency of supply chains or pre-defined action plans) allow companies to make informed decisions in a timely manner and reduce the impact of disruptions (Pertheban et al., 2023). Therefore, based on proactivity, an organization not only recovers from a crisis, but also proactively mitigates the consequences, increasing the chances of business recovery. Proactivity has become especially relevant in the context of current systemic

challenges. Recent crises – pandemics, wars, energy shocks – have shown that reactive measures alone are not enough. Companies that invested in resilience in advance, had business continuity plans in place, and flexible organizational structures have successfully weathered cataclysms (Yulianto et al., 2025). Proactivity is viewed as the ability of an organization, based on a set of competencies (strategic foresight, rapid restructuring, and a culture of innovation), to enable dynamic adaptation to change. Thus, proactivity is the basis of resilience, ensuring business stability in difficult-to-predict conditions.

In the latest research (2020–2024), business resilience is considered as a multidimensional model. One of the conceptual models is the three-stage resilience model, which has successive stages:

Anticipation – preparation for potential shocks;

coping (response) – effective actions during a crisis;

adaptation – learning and transformation after overcoming a crisis.

Within the framework of this model, resilience is interpreted as a dynamic ability (meta-capability) of an organization, which is formed by a set of specific capabilities at each stage. According to Duchek (2019), at the *anticipation* stage the key ones are: scanning the environment (early detection of weak signals); risk assessment, scenario planning; preventive accumulation of resources. These management actions lay the foundation for future resilience, because threats identified in advance are easier to neutralize.

At the *coping* stage, flexibility is important – the ability to quickly restructure operations, reallocate resources, make non-trivial decisions under the pressure of risks and time conditions.

At the *adaptation* stage, organizational learning is necessary: analysis of experience, changes in strategies and structures to increase resilience in the long term.

Note that the logical relationship is as follows: anticipation provides response during a crisis, and coping determines the flexibility of the system and the direction of its further adaptations. Thus, the concept of a three-stage resilience model for building proactive resilience strategies is basic, since resilience begins before the crisis, from the anticipation stage.

Another important theoretical approach to ensuring business resilience is the concept of dynamic capabilities, which explains how companies create competitive advantages in a changing environment by constantly transforming their resources and skills.

Classically, three groups of dynamic capabilities are distinguished: sensing changes and opportunities, seizing them through making appropriate decisions, and reconfiguring resources to new conditions (Biswakarma & Bohora, 2025). In this context, these capabilities manifest themselves as the ability to anticipate threats, promptly take measures (for example, launch a new product, change supplier) and restructure the business model to adapt to external shock conditions. Resilience is defined as the dynamic ability of the system to respond promptly to external challenges. From these positions, we note that flexibility and innovation are important characteristics of a

management system, but in the absence of a resilience "buffer" they may not ensure survival. If an organization purposefully builds resilience (invests in reserves, sustainable processes), then its dynamic capabilities are fully realized and lead to high productivity even in turbulent conditions. For Ukrainian companies in wartime, the development of dynamic capabilities is actually a strategy for anticipating crisis events: systematic monitoring of the environment (for early detection of threats), a culture of experimentation (to quickly find reasonable solutions) and structural flexibility (to quickly transform business processes).

One of the key mechanisms for institutionalizing proactive resilience is Business Continuity Planning (BCP). This concept was formed within the framework of modern risk management and involves the development of detailed scenarios for responding to force majeure circumstances in order to ensure the functioning of critical business processes. It is important to note that BCP functions not only as an operational tool, but also as a strategic element of the organization's management system. According to the results of current scientific research, the integration of business continuity planning into the development strategy contributes to an increase in the level of preparedness for external shocks and organizational agility (Yulianto et al., 2025). In this context, proactive resilience is formed, which involves early risk management, the creation of resource reserves, systematic training of personnel for actions in emergency situations and other preventive measures that are implemented even before the actual identification of a crisis situation.

The evolution of the concept of organizational resilience reflects the diversity of approaches to its understanding in the scientific literature. Thus, Coutu (2002) from Anukov considers resilience through the prism of a psychological-organizational approach, defining it as the ability of organizations to maintain core values and at the same time adapt to new conditions during a crisis. In contrast, Lengnick-Hall and Beck (2005) interpret resilience as the dynamic ability of an enterprise to create new competencies in conditions of uncertainty, focusing on strategic management and innovation. A significant contribution to the further development of the theory of resilience was made by Weick and Sutcliffe (2007), linking organizational resilience with the principles of risk management and the concept of High Reliability Organizations. Hollnagel et al. (2017) focus on the systemic aspect, considering resilience as the ability of organizations to monitor, respond and adjust actions in response to disruptions, which forms the basis of managerial resilience. At the same time, Burnard and Bhamra (2011) propose an entrepreneurial approach, defining resilience as the ability to respond to unexpected events and use them as opportunities for development. The author Denyer (2017) substantiates an integrative position that combines elements of resilience, readiness and adaptability of organizations to change, pointing to the dynamic nature of this phenomenon.

A comparative analysis of the definition of "resilience" presented in *Table 1* and the concepts of business resilience indicated in *Table 2* confirm our position on the multidimensionality and complexity of this process, since, firstly, the three-stage model of resilience indicates a sequence of actions –

from anticipation to adaptation, that is, it emphasizes the dynamic, process-based nature of resilience; secondly, the concept of dynamic capabilities focuses on flexibility, innovation and the ability to quickly transform business processes and resources, which indicates the importance of entrepreneurial initiative and innovation in ensuring resilience; thirdly, business continuity planning reflects an institutional approach focused on preparing for crises and creating a system of reserves and infrastructure solutions.

Table 1
Comparative definition analysis of "business resilience": an evolutionary aspect

Concept	Content feature
The ability of organizations to preserve core values while adapting to new conditions during	Psychological and organizational approach: identity and values as the core
crises	of resilience
The strategic ability of an organization to create new competencies in conditions of uncertainty	Emphasis on strategic management and innovation
Based on collective learning and risk prevention	Emphasis on risk management
The ability of an organization to monitor, respond, and adjust	Management approach: resilience as a cycle of functions
Ability to respond to unexpected events and use them as an opportunity for growth	Entrepreneurial aspect: development through crisis
The dynamic ability of an organization to anticipate, prepare for, respond to, and adapt to change and disruption	Emphasis on combining resilience and adaptability

Source: compiled by the authors based on (Denyer, 2017; Burnard & Bhamra, 2011; Hollnagel et al., 2017; Weick & Sutcliffe, 2007; Coutu, 2002).

Table 2 Concepts of business resilience

Approach/concept	Key components	Business application	Examples of implementation in Ukraine
Three-stage model of resilience	Anticipation, Coping, Adaptation	Systematic monitoring of threats, scenario planning, rapid response, analysis of experience, implementation of changes	Analytical centers of large companies, regular analysis of risk scenarios (military, economic, technological)
Concept of dynamic capabilities	Sensing, Seizing, Reconfiguring	Early detection of risks, experimentation with new solutions, rapid restructuring of business models	IT companies: rapid adaptation to remote work, crisis management teams, delegation of decisions
Business continuity planning	Developing detailed contingency plans, reserving resources, training personnel	Development of financial and material reserves, alternative sites, infrastructure duplication, regular staff training	Programs to create reserve grain storage facilities, autonomous energy sources (generators, solar panels, Starlink)

Source: compiled by the authors based on (Duchek, 2019; Biswakarma & Bohora, 2025; Yulianto et al., 2025).

Summarizing the theoretical basis of the study, we note that there is an ongoing scientific discussion on the definition of the concept of proactivity in the context of ensuring business resilience, since its interpretation is largely determined by the industry specifics of the business, the level of uncertainty of the external environment and the methodological approaches of researchers. At the same time, different scientific schools consider proactivity as a combination of strategic foresight, flexible response and institutional continuity. This indicates the need for an integrated approach that combines the process, dynamic and resource logic of forming business resilience based on a proactive strategy.

2. Ukrainian experience in ensuring business resilience

Ukrainian business, faced with the unprecedented challenges of a full-scale war, a 27.9% reduction in domestic demand (World Bank Group, 2025), loss of access to sales markets, and changes in logistics channels, demonstrated proactive actions that ensured business resilience by restructuring operating models to the realities of the war. In 2022, some exporters reoriented deliveries to EU countries, and retailers to new international logistics channels (Lyzun et al., 2024). As a result, only 2% of Ukrainian companies completely suspended operations after the invasion (Kravchenko et al., 2023).

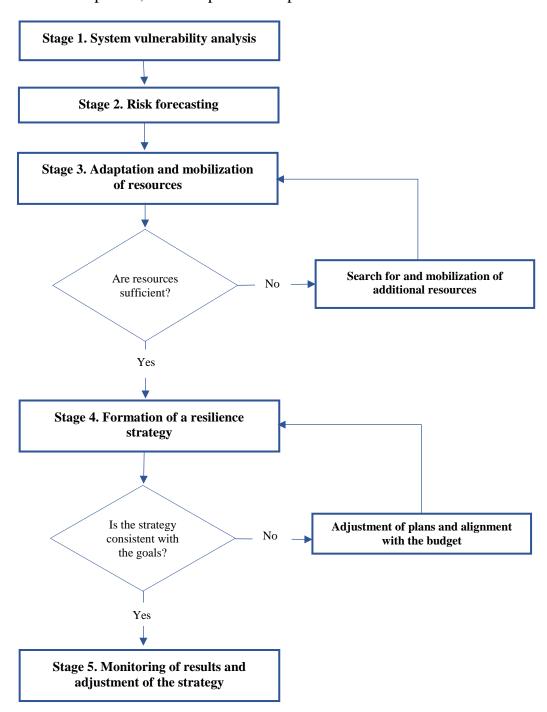
An analysis of Ukrainian experience in ensuring business resilience showed that the Ukrainian IT industry was resilient, as Ukrainian IT companies retained ~95% of contracts (Segal, 2022). Proactive measures were aimed at investing in secure VPN services, backup servers, and autonomous communication sources. IT companies used the principles of agile management and dynamic capabilities. Management teams were formed by the companies to implement a business continuity plan. Scenario planning as a component of the three-stage resilience model allowed the logistics business to quickly resume operations, even despite a 95% drop in transportation volumes in 2022. A proactive priority was ensuring the safety and motivation of personnel, which directly affects business resilience. Companies implemented measures to protect personnel: evacuation, flexible work schedules, material and psychological support. Thanks to this, 90% of companies whose physical facilities were affected by shelling quickly recovered (Kravchenko et al., 2023). The retail chain proactively implemented changes to its communication policy, which is one of the components of the dynamic capabilities concept. Proactive communication policies are aimed at uniting staff, which increased staff motivation and became a critical factor in the sustainability of the retail business (Kravchenko et al., 2023).

In the banking sector, the principle of business continuity was used to create the "Bank of Indestructibility" program, which allowed customers to receive online banking and payment services even during blackouts.

In this context, it is appropriate to generalize the international experience of businesses operating against the backdrop of political crisis and economic collapse. Analysis of interviews with 34 Lebanese entrepreneurs led to the conclusion that in conditions of "permanent crisis", continuous scenario planning, resource reservation, mutual assistance partners, constant adaptation and alternative supplies are the basis of resilience (Makdissi et al., 2019). A similar proactive, flexible management model is also typical for Israeli businesses. During exacerbations, all business entities quickly resume their activities (OECD, 2025). Ukrainian and international experience demonstrate that proactive management – from strategic planning to the creation of flexible structures – is a universal factor of resilience. Ukrainian companies that apply these approaches actually become part of the global practice of business resilience.

3. Methodological principles for forming proactive business resilience strategies

The growth of crisis challenges has made the study of the scientific basis for the formation of proactive business resilience strategies relevant. Scientific substantiation of the essence of business resilience as a dynamic ability of entities to resist and adapt to external challenges, in particular poorly predicted ones, through a system of management capabilities, which allows for preventive assessment of the consequences of the crisis, makes it possible to identify critical factors of influence, develop preventive management decisions and create a basis for strategic stability of enterprises in an environment of uncertainty. During the research, we came to the conclusion that the concept of anticipation, the genesis of which in the interdisciplinary research field developed from philosophy to psychology and management theory, focuses on the fact that resilience begins even before the crisis – with the anticipation of threats and preparation for them. Rosen (1985) in his scientific work defined anticipation as the property of a system to act "today" on the basis of the prediction of "tomorrow". It is at the stage of event prediction that the following are key: systematic scanning of the environment to identify hazards, vulnerability assessment and planning of event scenarios, and early accumulation of resources in case of emergencies. These preventive actions lay the foundation for business resilience. Accordingly, a proactive business resilience strategy can be defined as a set of management actions focused on proactive identification of external and internal risks, forecasting event scenarios, and developing preventive measures that ensure longterm sustainability and competitiveness. In view of this, the formation of a proactive resilience strategy reflects the logic of the transition from vulnerability identification to systematic monitoring of external and internal risks and adjustment of management decisions. The algorithm presented in the *Figure* demonstrates the process of forming a proactive business resilience strategy, in which each stage is interconnected and provides the basis for preventive response, resource adaptation, and enterprise development.



Algorithm for formulating a proactive business resilience strategy

Source: compiled by the authors based on (Duchek, 2019; Lengnick-Hall & Beck, 2005; Weick & Sutcliffe, 2007; Hollnagel et al., 2017; Denyer, 2017).

The first stage is aimed at identifying the most critical elements of the system, i.e. forming an information base for risk forecasting. The main task of this stage is to determine the vulnerable sides of the business (key resources, processes, connections), identify critical dependencies based on risk matrix modeling, scenario analysis, and use stress-testing methods to assess the system's readiness for potential crisis scenarios. This allows you to model a vulnerability map to reflect critical risk zones and determine priority areas for increasing business resilience. Based on the identified vulnerabilities, potential risks are predicted and crisis scenarios are developed.

The second stage is aimed at preventively identifying possible crisis scenarios and forming alternative response strategies. Scenario planning involves taking into account not only the basic or most likely options for the development of events, but also extreme, unlikely situations. For each scenario, an assessment of potential consequences and the speed of events is carried out, which allows you to prepare adequate response mechanisms in advance. An important component of this stage is systematic monitoring of the external environment, primarily economic indicators, security factors, regulatory changes, which are indicators of approaching crisis events. In case the risks have not been properly identified, in-depth monitoring is used, which involves clarifying and updating threshold triggers that signal possible crisis events. Thus, the result of risk forecasting is a set of scenarios and early warning mechanisms that provide the enterprise with the opportunity not only to reduce the consequences of crises, but also to prepare for them in advance. This creates the basis for increasing business resilience and its longterm stability in a turbulent environment.

The third stage involves creating conditions for maintaining operational activities by optimizing and expanding resource support. Resource mobilization includes the formation of financial and material reserves, the creation of reserve production capacities and the establishment of alternative communication channels. Key preventive measures include the formation of financial insurance funds and the accumulation of stocks of critical resources. Preventive accumulation of resources before the onset of a crisis creates reserves that allow maintaining the functioning of business processes even under conditions of external shocks. In the event of a shortage of available resources, the enterprise searches for additional reserves, the sources of which are preventively determined. The result of this stage is an increase in the enterprise's readiness to function in extreme conditions due to the created reserves and mobilized resources. This forms the basis for sustainable operation and strengthens the organization's ability to withstand crises.

The fourth stage is devoted to the formation of a proactive resilience strategy aimed at ensuring long-term business stability, and involves the application of a set of measures: diversification of suppliers and sales

markets; geographical dispersion (location) of operations; creation of backup systems and implementation of business continuity plans; increasing the level of cyber protection. A feature of this stage is the focus not only on profitability, but also on long-term sustainability, which may involve investing in the creation of reserve funds even with a decrease in current financial results. In the event of a discrepancy between strategic plans and the resource or financial capabilities of the enterprise, they are adjusted and coordinated with the budget. The result is a resilience strategy that provides a balance between efficiency and the ability to counteract crises.

The final fifth stage is aimed at maintaining the effectiveness of the chosen direction of strategy implementation (*Table 3*) through mechanisms of continuous improvement. The proposed directions demonstrate differences, determining the possibility of incorporating proactive actions into corporate culture, operational activities and/or innovative development.

Table 3
Areas for implementing proactive business resilience strategies

Area	Management actions	
Strategic planning and management	Integration of resilience principles into corporate strategy. Transition from reactive risk management to proactive planning. Early identification of risks, weak signals and scenario planning of crisis situations. Development of business continuity plans, regular staff training	
Operational flexibility	Diversification of suppliers, logistics routes and sales markets. Locational dispersion of key business processes. Formation of strategic resource reserves. Alternative energy supply and communication channels	
Technological stability (IT)	Transferring critical systems and data to cloud environments outside risk zones. Data backup, creation of duplicate servers. Investments in cybersecurity (VPN, secure networks, server redundancy). Transition to electronic document management and online services for customers	
Human resource management	Development of plans to support personnel in crisis conditions. Psychological and material assistance programs, personnel relocation. Crisis response training and education. Proactive culture: initiative, quick decision-making, exchange of experience	
Innovation and business model development	Using the crisis as an opportunity for innovation (new products, services, markets). Cost optimization and adaptation of the business model to changed conditions. Post-crisis training and strategy updates. Investments in products/services focused on current needs (energy efficiency, defense technologies, food security)	

Source: compiled by the authors based on (Duchek, 2019; Denyer, 2017; Lengnick-Hall & Beck, 2005; Williams et al., 2017; Biswakarma & Bohora, 2025; Yulianto et al., 2025; Kravchenko et al., 2025).

After each crisis situation, it is advisable to conduct a post-crisis analysis, which allows integrating the experience gained into the strategy update process. This corresponds to the adaptation stage in classical resilience models. If low strategy effectiveness is detected, an in-depth analysis is carried out and adjustments are made to continuity plans and operational processes. The result of this stage is a system of actions aimed at ensuring the enterprise's ability to continuously update and prepare for future challenges, which guarantees the preservation of competitiveness even in conditions of high environmental turbulence.

Thus, within the strategic management paradigm, the essence of a proactive business resilience strategy is interpreted as an integrated set of management actions aimed at anticipatory risk forecasting, construction of multivariate crisis scenarios, formation of flexible business processes, diversification of investments in innovative areas and development of human capital as a key resource. This allows not only to proactively neutralize the impacts of the external environment, but also to transform them into strategic advantages, which correlates with the basic principles of resilience theory.

Conclusions

The results of the research confirmed the hypothesis that proactive resilience strategies are a key factor in business adaptation to extreme conditions. Their application ensures not only the minimization of crisis risks, but also the transformation of challenges into strategic opportunities, which creates the basis for the long-term development of enterprises. It is proven that business resilience goes beyond restoration to the previous state, as it involves adaptive transformation, organizational learning and substantiation of new opportunities and development models. Key tools for increasing resilience have been identified, such as scenario planning, resource diversification, formation of financial and human resources reserves, as well as strengthening cyber resilience, which ensure the integration of resilience principles into the strategic management of enterprises. Prospects for future research include expanding the empirical base for quantitative assessment of the effectiveness of proactive strategies, analyzing the possibilities of their scaling in different sectors of the economy, as well as studying the impact of state regulatory policies on the formation and development of business resilience. It is also advisable to conduct international comparative research, which will contribute to the development of a generalized model for ensuring the resilience of enterprises on a global scale. It should be noted that the research should take into account such challenges as the impact of digital transformation, artificial intelligence, and cyber threats on business resilience.

Another important direction for further research is the integration of the principles of the "green" economy and sustainable development, which form the modern basis of resilience. Special attention needs to be paid to the study of the role of organizational culture, leadership and human capital, the development of practical tools for measuring the level of resilience based on quantitative and qualitative indicators. Thus, in future, research on business resilience should combine economic, social, technological and environmental dimensions, which will allow forming a holistic concept of long-term sustainability and competitiveness of enterprises.

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