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Business Risk Management in Times of Crises and Pandemics

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ABSTRACT

The purpose of the article is to identify approaches and tools for business risk management in times of crises and pandemics for 3 risk groups. The goal was achieved through the following methods: content analysis (for summarizing the views on business risk management, grouping the main types of risks into three groups, which allowed to develop models and management systems), inductive reasoning (for the formation of subgroups of business risk, systematization of the slogans of companies), expert survey (for identifying trends in the development of corporate culture as a tool for managing business risks). The formation of competitive systems requires effective mechanisms for managing business risks, especially in periods of crises and pandemics, which in modern conditions have become more frequent and deepened. The authors suggested that crises and pandemics trigger a mechanism of negative expectations, which further worsens the business and narrows its competitive advantages. Choosing the right model of behaviour allows businesses to make profits due to the expansion of the market niche, the exit of competitors from the market, increasing demand for goods and services due to limited market supply. The authors proposed to divide all business risks into three groups (internal, strategic, external) with a division into 12 subgroups according to the criteria of developing systems and management models. The results of the study show that a corporate culture is a key tool in managing internal business risks, improving the management system is a tool to minimize strategic risks, but business can only mitigate external risks

INTRODUCTION

Global development lays the foundations for business competitiveness. The world system is characterized by a significant strengthening of the positions of Asian countries. Thus, China is a contender for global influence in the political dimension, and in financial and economic terms, China, Japan and South Korea are powerful global players (Samofalov, 2013). The ASEAN community can also claim some weight in the world, as it is surrounded by a large number of associations and forums, both of a purely Asian nature and with the involvement of the United States, Australia and New Zealand (Shergin, 2010). However, relations between East and Southeast Asia are characterized by conflicts, the implementation of which destabilizes the economic, environmental, social components of development of both the region and the world. Therefore, in terms of security, East Asia is to some extent a source of political, economic and socio-environmental instability. Besides, most of the world's pandemics began in Asian countries. In particular, several pandemics spread from China, namely the Black Death (1340–1350), the Asian Flu (1957–1958), the Hong Kong Flu (1968–1970), the SARS epidemic (2002–2003), and Bird Flu (2003–2005), the COVID-19 (2020), as well as cholera (1817–1923, 1961) from India and Indonesia. It should be noted that some pandemics have caused crises in the world economy. In particular, the Asian flu was accompanied by the crisis in the United States, the Netherlands, Great Britain, Canada, Belgium and other countries in 1957-1958. This crisis became the world's first economic crisis since the end of World War II. There was also an epidemic of cholera during 11 crises in the periods of 1825, 1836-1838, 1847, 1857, 1873, 1882, 1890-1893, 1900-1903, 1907, 1914, 1920–1921. However, during the Hong Kong flu, the SARS epidemic, and Bird Flu, global crises were not observed. As business risks arose during crises and pandemics, risk management is a priority for business and government in forming public-private partnerships for sustainable development.

1. LITERATURE REVIEW

Understanding the nature and types of business risks, setting up the process of identifying risks and managing risks help managers make more conscious and well-informed decisions. R. Kaplan and A. Mikes (2012) proposed a new risk categorization that allows managers to determine which risks can be managed using a rule-based model and which require alternative approaches. Risks that can be managed using a rule-based model include preventable (internal) risks (risks of unauthorized, illegal, unethical, incorrect or inappropriate actions of employees and managers, as well as operational risks). Risks that can be managed through management systems include strategic risks that are desirable for the business, as companies consciously agree to the presence of these risks to achieve the strategy. External risks cannot be managed by businesses because they are outside the company's sphere of influence. The sources of these risks are natural and political disasters, macroeconomic shifts. The main thing here is to identify risks in time and mitigate them. Scientists have paid considerable attention to identifying and preparing companies for unforeseen risks that arise externally for their strategy and activities.

S. Kot and P. Dragon (2015) proposed an analysis of business risk management models in international energy companies. The authors identified that the main risks are strategic, operational and financial, which allowed proposing a hypothesis about the effectiveness of risk through a three-level assessment: level (the risk strategy has not been defined and implemented), improvable (the risk management strategy is defined but not fully implemented) та hight (defined strategy, measures adapted). The article Top Risks Facing Businesses (Cbiz, 2017) states that the main risks faced by companies are cyberattacks, rapid technological change, talent management, the Trump administration, a proactive approach as a basis for success. V. Lopatovsky (2006) revealed the expediency of applying control to increase the effectiveness of the risk management system and the use of clusters in the fight against external risks. I. Fadyeyeva and O. Gryniuk (2017) formed a cascading fuzzy model with Mamdani-type assessment and prediction of the probability of risks of operating activities of enterprises.

K. Kozhukhina and K. Costin (2019) proved the impact of emergence and entropy of entrepreneurial risks, proposed a system of principles for building risk management, identified stages of business risk management, including identification, profiling, evaluation and definition of risk minimization methods.

According to scientists, the methods of risk reduction are compensation, methods of risk aversion, risk transfer, distribution, localization. Also, ranked risks were divided into high (negatively affect the brand, which can stop the business), medium (some services are not provided, which can create a negative image in the media), insignificant (additional work for employees, which can cause gossip). S. Kaplan and A. Mikes (2012) noted that communication skills, mathematical models, experience are important in risk management, besides, the experience of risk management in Koch Industries is useful, where the working group includes engineers, accountants, financial specialists and other specialists. The authors proved that the financial sector has the best model of risk management, which is associated with the development of innovations in financial engineering, transport development, telecommunications and computing, motivation in production to grow sales, market share and stock prices. Risks have become the rule, not the exception, because of the scale of the world's crises. Accordingly, the main element in risk management is rationalization, the belief that a particular behavior is economically and morally justified.

Business risk ultimately translates into a threat to financial security. Also, financial risk and business risk are important determinants of firm value. An approach to assessing the change in business risk is associated with different industries and sizes of companies. V. Trynchuk et al. (2019) identified the features of socialization of the organization of sustainable development based on the principles of corporate social responsibility, which is a tool to minimize the negative consequences of external business risks. O. Polinkevych and R. Kamiński (2018) outlined the impact of corporate image on behavioral marketing, noted the peculiarities of the formation of marketing risks and the feasibility of maintaining a corporate image to minimize these risks.

2. HYPOTHESES

Managers sometimes overestimate the ability to influence a variety of events and phenomena. The main hypothesis of the study is the assumption that crises and pandemics trigger a mechanism of negative expectations, which further worsens the business and narrows its competitive advantages. Accordingly, there is a synergistic effect of increasing the impact of all types of risk on business. Choosing the right model of behaviour allows businesses to make profits due to the expansion of the market niche, the exit of competitors from the market, increasing demand for goods and services due to limited market supply.

3. METHODOLOGY AND DATA

The hypothesis was confirmed using several methods, namely content analysis (for summarizing the views of the scientists on business risk management, grouping the main types of risks into three groups, which allowed to develop models and management systems), inductive reasoning (for the formation of subgroups of business risk within the main groups, systematization of the mottos of companies), expert survey (for identifying trends in the development of corporate culture as a tool for managing business risks). In general, entrepreneurial risk means the dependence of business on factors that reduce profitability and lead to bankruptcy, as well as do not contribute to the achievement of socio-environmental and economic goals.

Business risk management is the ability to make non-standard decisions in conditions of uncertainty, which are common sense doomed to failure, but in contrast, due to psychological expectations, provide a high level of income or create conditions for development and implementation of strategic goals, improve corporate culture, security and the state of the environment. The Top 50 Business Risks (2019) provides an exhaustive list of business risks, including 50 risks with management measures. Analysis of examples of risks allowed to divide all business risks into three groups (internal, strategic, external) with a division into 12 subgroups according to the criteria of developing systems and management models (table 1).

Table 1. Groups and subgroups of business risks and features of risk management in times of crises and pandemics

Types of risks	*Risk management*	*Examples of risks according to the top 50 business risks*
Internal risks		
Operational risks	Insurance, compliance with technical and technological norms and standards, development of early warning and response system, market pricing monitoring, inventory management, flexible work schedule, concluding contracts with emergency services, spare parts formation, improving human management, investing in infrastructure, investing in training managers	Risk of assess loss, Risk of displaying the incorrect cost of components, Lack of office space, Machinery failure, Risk to day-to-day operations, Poor management, Technology risks, Technology breakdown
Risks of monetary and financial losses	Use of credit checks, credit limits, collector services, improvement of cash flow management, inventory, software change, careful use of long-term and short-term financing, an increase of sales quotas, reduction of expenses, establishment of various forecast options (probability of fulfilment 30%, 50%, 70 %), monthly forecast updates, outsourcing, contracting, use of Amazon warehousing system	Bad debt Low cashflow Loss of profit Revenue forecast missed Under-resourcing
Marketing and sales risks	Use of Google Analytics, strengthening of creative entertaining content, product re-profiling, assortment changes, marketing research, diversification, security system, process automation, integration of innovations into business	Brand fatigue, Difficult-to-sell product, Supply chain failure/delays, Theft of product, Time-to-market, Transportation delay or damage
Customer risks	Strengthening business reputation, using the services of business analysts, diversification, reviewing approaches to working with clients, updating the customer base, forming a philosophy of customer value, investing in employees, product quality control, tracking the mood of stakeholders	Bankruptcy of suppliers or clients Client attrition Low customer satisfaction Loss of reputation
Risk of loss of health and safety of employees	Development of safety policy in the field of health, staff training, provision of personal protective equipment, outsourcing, process automation, health insurance	Health and safety of employees, Lack of skills/expertise, Loss of key skills, Staff sickness/absence
Strategic risks		
Risk of ineffective business strategy	Setting clear goals and objectives, regular review of strategy	Poor or becoming a less effective business strategy
The risk of the inconsistency of goals and objectives of the market situation	Investment risk models, Monte Carlo modelling, sensitivity analysis and risk scenarios, investing in beta testing, shadow-test, investing in consultants, risk assessment	Market changes, Market acceptance, Opportunities and limitations of new markets, Regulatory compliance
External risks		
Competitive risks	Collection of information and risk assessment, development of defence strategy, cooperation with research and consulting firms, monitoring of social networks, the involvement of outsourcing consultants, insurance against court costs, the introduction of a full-time lawyer or concluding contracts with a law firm for service, implementation of initiatives, choice of priorities, review of decisions, an adaptation of services and products to seasonal changes	Competition: aggressive marketing Competition: better intelligence Competition: legal action Recession Seasonal risk Unexpected demand
Political and legal risks	Staff training and refresher courses, legal advice, quality and safety inspections, registration of copyrights, patents, use of stock images and footage, decentralization of foreign investment, insurance of political risks	Compliance with regulations, Copyright / Patent theft, Loss of political support, Political instability, War, military conflicts
Socio-environmental risks	Ensuring safe temperatures, access to water, support with travel and accommodation for workers, insurance of buildings against accidents, back up generators and autonomous stations, reduction of dependence on utility	Environment (natural or business environment), Failure of utilities e.g. water, electricity, Natural disaster
Information and security risks	Network and data encryption, security audit, efficient data access policy, training of employees in security methods, verification of biographical data, monitoring employee activity	Data security Espionage (commercial)
Currency risks	Exchange operations, Fix rate via a forward exchange contract, currency risk insurance, use of a Forex structured product	Exchange rates e.g. forex

Source: compiled by the authors in accordance with (Stakeholdermap, 2019)

Thus, the authors divided 50 business risks into three groups and 12 subgroups according to the methodology of R. Kaplan and A. Mikes (2012). In particular, internal risks include operational risks, risk of monetary and financial losses, marketing and sales risks, customer risks, risk of loss of health and safety of employees. Active prevention is the best method of managing this group of risks through monitoring of operational processes, adjusting the behaviour of employees in accordance with the rules. Moreover, the main tool should be a strong corporate culture as an effective means of controlling actions. Companies whose corporate culture is aimed at an aggressive competition, carry out riskier activities, suffering greater losses. So, the corporate culture encourages ethical behaviour in business that helps address risky situations. The application of the K. Cameron and R. Quinn (2011) methodology helped to identify the type of corporate culture in Ukraine.

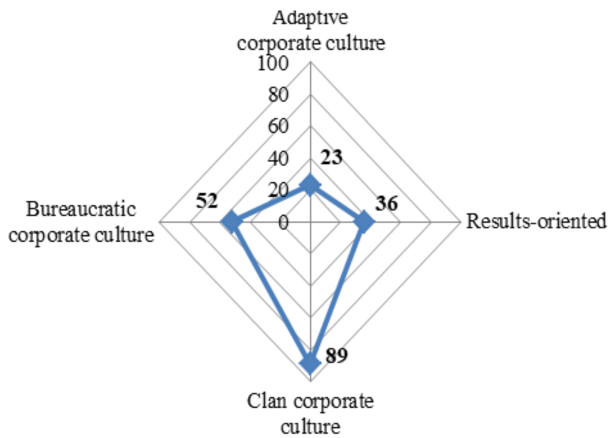

Figure 1. Types of the corporate culture at enterprises in Ukraine in conditions of crises and pandemics

Source: Prepared by authors

The authors conducted a survey of 200 respondents in May-June 2020, including 95 men and 105 women (25% of management staff and 75% of working staff). Respondents were asked about the most important characteristics of the organization, leadership style in the organization, the model of employee management, availability and awareness of strategic goals, criteria for business success, the unifying essence of the organization. Most respondents noted that Ukraine has a clan-based corporate culture that characterizes family-type organizations through such characteristics as commitment, a sense of community, organization of teamwork, corporate obligations to employees, and the perception of consumers and suppliers as partners (Figure 1).

Corporate culture should begin with the formation of the slogan. In particular, T. Deal and A. Kennedy (2000) identified the following slogans: table 2. Scientists have developed profiles for almost eighty organizations (both "profitable" and "non-profit"). As a result, the researchers found that only 30% of the sample companies had clearly articulated missions and values; only 2/3 of this 30% of enterprises unambiguously focused on qualitative indicators, others were dominated by financial goals with quantitative indicators.

Table 2. Examples of the slogans of selected companies

Company	*Slogan*	*Sales volume, number of employees*
IBM	IBM Means Service.	$ 79.59 billion (2018), 355 thousand people (2006)
Nike	Feel the spirit of competition, victory and defeat competitors.	$ 20.86 billion (2011), 38 thousand people (2011)
Walt Disney Company	Making People Happy.	$ 59.434 billion (2018), 201 thousand people (2018)
General Electric	Progress is our Most Important Product.	$ 150.21 billion (2013), 323 thousand people (2008)
DuPont	Give the world the best with innovations for prosperity.	$ 32.733 billion (2010),

		70 thousand people (2012)
Hewlett-Packard	Make a technical contribution to the development and well-being of society.	$ 111.454 billion (2014), 302 thousand people (2015)
3M	Solving problems that have no solutions is innovation.	$ 32.8 million (2018), 94 thousand people (2018)
Roshen Confec-tionery Corp.	The main goal is our clients. To remain a leader, a company needs not only to move forward but also to set the pace for the entire industry. The main principles of activity are quality and innovation.	$ 800 million (2019), 10 thousand people (2019)
Modern Expo	We implement the client's vision: from a small idea of new equipment to a turnkey innovative project through rapid changes, innovations that transform the customer experience and an atmosphere of trust and involvement.	$ 585.9 million (2016), 2.5 thousand people (2016)
Naftogaz Group	To become the driving force for modernization and professionalism in the Ukrainian energy sector integrated with the European market, ensuring the security of energy supplies at competitive prices while maximizing the value of national resources	$ 7533.08 million (2018), 75 thousand people (2018)
ATB market	To provide the population of Ukraine with quality food and non-food essentials at minimum prices. Guarantee the quality of goods through the use of highly efficient technologies and ethical conduct of retail business.	$ 113 million (2018), 55 thousand people (2018)

Source: compiled by the authors in accordance with (Vinnichuk and Golovnyov, 2019)

The results of the study show that both Ukrainian and foreign companies have their slogans that correspond to a high level of corporate culture. However, sales volumes and the number of employees in Ukrainian companies are much lower than in global ones. The most important cha-racteristics of the organization and leadership styles inherent in Ukrainian business were determi-ned using the method of D. Goleman, R. Boyatzis and A. McKee (2004). Among the most important characteristics of the organization, respondents identified safe working conditions, which is especially important in ti-mes of growing epidemics and crises (Figure 2). The development of corporate culture is facilita-ted by the sociable and democratic leadership styles that received the greatest support from res-pondents. The results of the survey show that 75 respondents believe that the unifying essen-ce of the organization is a smooth approach to change, 61 respondents say that the desire to win the market is an important strategic goal, 75 respondents believe that the socio-psychological component is the main criterion for success (Figure 2-4). Thus, Ukrainian companies have formed an understanding of the importance of a strong corporate culture that can overcome business risks.

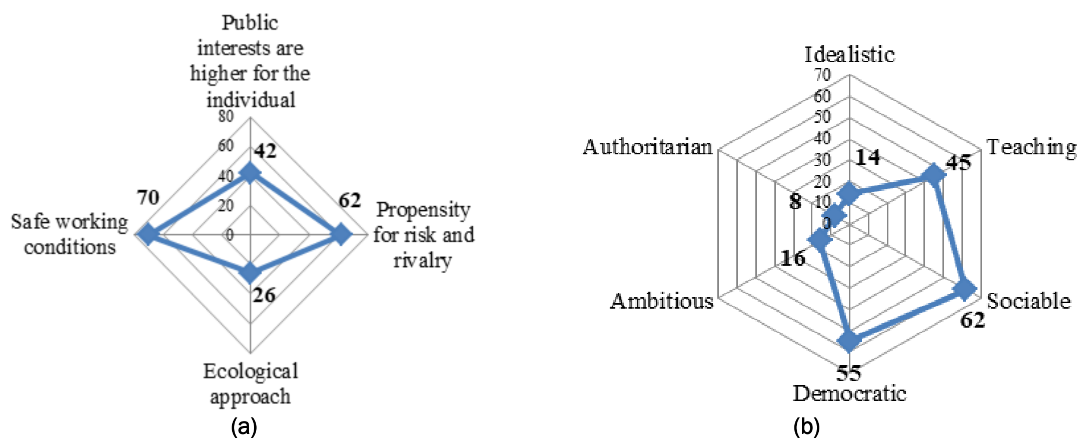

Figure 2. The most important characteristics of the organization (a) and leadership styles inherent in Ukrainian business (b)

Source: Prepared by authors

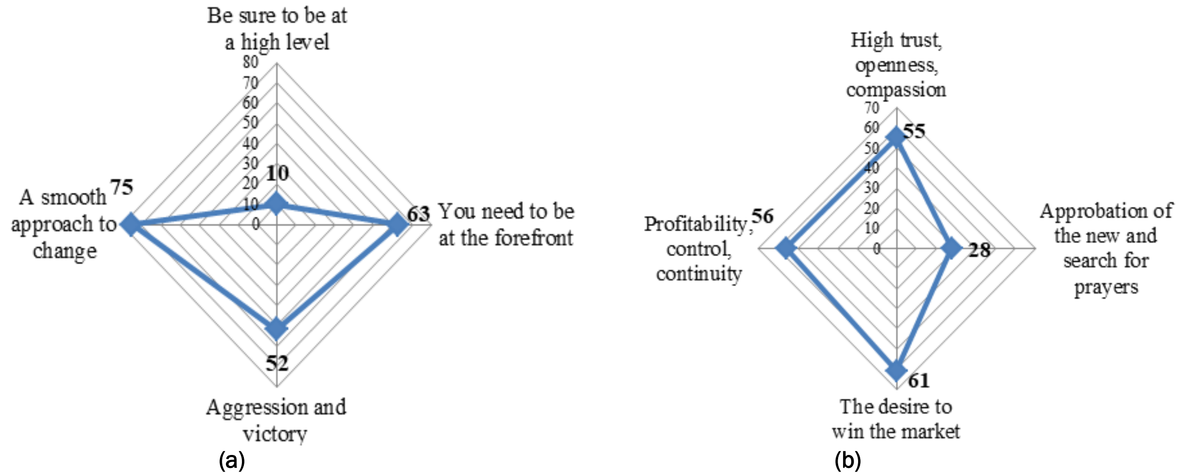

Figure 3. The unifying essence of the organization (a) and strategic goals (b) of business in Ukraine in times of crises and pandemics

Source: Prepared by authors

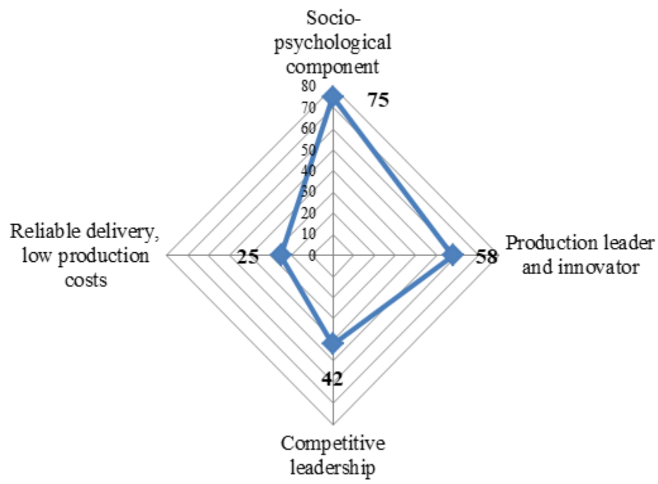

Figure 4. Criteria for business success in Ukraine in times of crises and pandemics

Source: Prepared by authors

It should be noted that strategic risks (the risk of ineffective business strategy, the risk of the inconsistency of goals and objectives of the market situation) can not be managed using a rule-based model. Strategic risk management should use a risk management system that promotes reasonable risk, which will allow you to discuss risk scenarios and make decisions to overcome them. Moreover, the risk is a tool that contributes to the achievement of strategic goals and ensu-res the development of the company, which in the future may bring the company extra profits. The main stages of managing strategic business risks during pandemics and crises are modelling and identification of risks, their analysis and assessment, selection of management tools, creation and implementation of risk minimization strategy, monitoring of strategic risk minimization processes. External risks, which are always present in the business process, are divided into competitive, poli-tical and legal, socio-environmental, information security and currency risks. Because they cannot be prevented, they should be mitigated by insuring risks, involving stakeholders to neutralize risks. External risks need to be assessed, the business impact identified, and mitigation measures deve-loped. At the same time, external risks change depending on the situation in the world. Thus, in 2019, The Economist experts named the main business risks, among which are (RBC, 2019):

– sharp fluctuations in oil prices due to supply shortages;

– the beginning of hostilities on the affiliation of the islands in the South China Sea - Spratly archipelago (claims China, Vietnam, Taiwan, Malaysia, Philippines, Brunei), Paracel Islands (claims China, Taiwan, Vietnam), Scarborough reef (claims China, Taiwan, Philippines);
– harming a large segment of the Internet through cyberattacks;
– the beginning of hostilities on the Korean Peninsula;
– withdrawal of the UK from the European Union without a withdrawal agreement (no-deal Brexit);
– the beginning of the banking crisis in Italy due to political and financial instability in the country.

Analysts at Bloomberg (Vedomosti, 2019) named among the risks world wars (between the US and China), Brexit and fluctuations in oil prices, the situation in Italy. The list of proposed risks should be expanded by the risk of pandemics. In Ukraine, external business risks will increase in 2020 due to the forecast of GDP decline in 2020 by 4.4% (according to the IMF forecast by 7.7%), inflation growth to 7.1% (according to the IMF forecast to 4.5%), raising the dollar exchange rate to UAH 30 (LB, 2019). Dynamics of Ukraine's international ratings confirm the growth of external business risks (Table 3).

Table 3. Ukraine in the global world rankings in 2014–2019, position in the ranking

Year	*Doing Business*	*Global Innovation Index*	*The Global Competitiveness Index*	*Intrastructure Index*	*The Index of Economic Freedom*	*Global Peace Index*	*Bloomberg's Misery Index*	*World Happiness Rating*	*Human Development Index*	*Global Firepower Index*
2014	112	63	76	68	155	141	4	87	81	20
2015	96	64	79	69	162	150	5	111	84	25
2016	83	56	85	75	162	156	6	123	88	30
2017	80	50	81	78	166	154	5	132	90	30
2018	76	43	83	57	150	152	7	138	88	29
2019	71	47	85	57	147	150	9	133	88	27
+/-	-41	-16	9	-11	-8	9	5	46	7	7

Surce: according to the (Globalfirepower, 2020), (Vedomosti, 2019), (UNDP, 2019), (UEFF, 2020), (Slovoidilo, 2019).

In particular, the Doing Business rating is made by the World Bank and is an important factor for investors when deciding to invest in the country's economy. It dropped to 41st place for Ukraine, which is a negative trend, as it indicates a decrease in investment by investors in Ukraine's economy. The Global Innovation Index has a similar trend, in which Ukraine has lost 16 positions. This rating analyzes 80 indicators to assess innovative development, including the level of education, the political situation, the level of infrastructure development. In the Infrastructure Index of the World Economic Forum, Ukraine lost 11 positions, in the index of economic freedom 8 positions. The Index of Economic Freedom takes into account 12 freedoms - from property rights to financial freedom. Ukraine is in the group of countries with the mostly unfree economy (the fourth category in the gradation of groups). In addition to countries with mostly unfree economies, there are countries with free economies, mostly free economies, moderately free economies and repressed economies. Ukraine's position is weakening according to the Global Peace Index, in which Ukraine is among the last ten countries, moving from 141st place in 2014 to 150th in 2019. This index is compiled by the Institute of Economics and Peace, the evaluation criteria are respected for human rights, war, terrorism, police violence, arms exports.

The World Economic Forum's Global Competitiveness Index assesses 12 indicators, including the state of infrastructure, the labour market, the level of education, macroeconomic stability, and the ability to innovate. Ukraine strengthened its position on the competitiveness index by 9 places in 2019 against 2014. The Armed Forces of Ukraine in the ranking of the strongest armies in the world according to Global Firepower Index. Ukraine strengthened its position by 7 places.

The ranking of the most miserable economies in the world (Bloomberg's Misery Index) takes into account inflation and unemployment forecasts for 66 countries. Ukraine is among the ten most miserable countries. The positive dynamics is the movement of Ukraine from 4th position in 2014 to 9th position in 2019. However, according to the World Happiness Rating, Ukraine worsened its position and moved from 87th place in 2014 to 133rd place in 2019. In particular, Ukrainians are dissatisfied with the level of social support in the country and the level of GDP per capita. According to the Human Development Index, Ukraine ranks 81-88 in 2014-2019. This index is used for interstate comparison and measurement of living standards, literacy, education and longevity.

The main external business risks for Ukraine in 2020 in the context of pandemics and crises are such as corruption, raiding, fraud within companies, unfounded and illegal claims of law enforcement agencies to business, loss of information and data, military conflict in Eastern Ukraine, the COVID-19 pandemic, reduction of foreign investment in a business, lack of free information space, violation of socio-environmental and economic security.

4. RESULTS AND DISCUSSION

The processes taking place in the world economy affect the development of the business system not only in the world but also in the region. The concept of development is associated with business risks, which are a key tool for slowing down or growing economic systems. Effective business risk management in Ukraine during pandemics and crises depends on the following main factors: the presence of corporate culture, professional legal support, the right selection of security firms and PR firms with experience in crisis conditions, communication with various stakeholders, the position of advisor on corporate security. Professional legal support has a positive effect on internal and strategic risks. In particular, the system of efficient production on the principles of agile, kaizen, kanban, scrum requires specialized legal support, which can be provided only by a professional law firm. At the same time, there are not only operational risks but also the risk of monetary and financial losses, marketing and sales risks, customer risks, the risk of loss of health and safety of employees. Accordingly, internal and strategic risks are interrelated. In the process of developing risk management mechanisms should take into account such aspects as:

- risks function as a holistic system, and one risk causes another;
- risks in business during crises and pandemics have a socio-psychological aspect. The mechanism of expectations is capable of strengthening of separate risks can cause the emergence of absolutely atypical risks for the sphere of activity;
- risks in business cannot be considered only as losses. This is an opportunity to deviate from the goal to achieve strategic goals;
- Considering the relationship between the system and the mechanism, it should be noted, that this relationship between two interrelated categories, when the first of them is general and the second - specific, designed to achieve the purpose of the first. It is necessary to distinguish between the concepts of „system“ and „mechanism“, namely the stages of transformation of elements with the actions through which it is carried out. The term „system“ can be defined as a set of interconnected elements that perform certain functions. The way to implement these functions is defined through the term „mechanism“, which combines a set of actions, operations to achieve the ultimate goal of the system. The mechanism is formed by the interaction of sub-systems of a particular system and at the same time is its attribute.

Table 4 presents the main approaches and tools for risk management in times of crisis and pandemics.

Table 4. Basic approaches and tools for business risk management in times of crises and pandemics

Risk group	*Management tool*	*Approach in management*
Internal	Corporate culture	Rules-based control models
Strategic	Corporate strategies	The control mechanism, which is based on the socio-psychological aspect
External	Insurance and hedging	The control system that includes a control mechanism and model

Source: Prepared by authors

As shown in Table 4, internal risks can be managed through control models that are built according to certain rules and have a logical basis. The main tool is the corporate culture, which is the basis of the management system. Strategic risks can be managed through the creation of corporate strategies, which are based on four concepts according to M. Porter: portfolio management, restructuring strategy, dissemination of certain skills throughout the enterprise, combining activities. It is necessary to develop a control mechanism, which is built taking into account the socio-psychological aspect. This is where atypical decisions and unexpected results are laid, which are difficult to predict. External risks can only be managed through hedging and insurance. Here it is necessary to develop a control system that includes a mechanism and a model.

The main stages of business risk management during pandemics and crises are modelling and identification of risks, their analysis and assessment, selection of management tools, creation and implementation of risk minimization strategy separately in terms of three risk groups (internal, strategic and external). Moreover, it is important to note that long waits in risk management decisions harm business. The prompt response of business to problems contributes to the receipt of profits for individual companies against the background of mass bankruptcy and the general economic downturn. The choice of an effective model of business risk management in the context of pandemics and crises will increase the profitability of both individual business units and the entire economic system. Therefore, it is important to further identify appropriate measures to mitigate external business risks, neutralize strategic and internal risks. The use of economic and mathematical modelling will establish the effectiveness of various measures.

CONCLUSION

This study describes the approaches and tools of business risk management in times of crisis and pandemics for 3 risk groups. The results of the study proved that it is not possible to apply the same approaches and tools to the management of different types of risks. The authors proved that the main tool in internal risk management is corporate culture, in strategic risk management is corporate strategy, and in external risk management is insurance and hedging. The study also showed that the main approaches in risk management are: model, mechanism and control system. The irrational nature of the behaviour of economic entities can be traced in the management of internal, strategic and external risks. This study offered a theoretical and empirical contribution to the scientific literature. In particular, the authors confirmed the hypothesis that managers overestimate the ability to influence processes and that in times of crises and pandemics, a mechanism of negative expectations is launched, which further worsens the business and narrows the competitive advantages of the business. At the same time, choosing the right model of behaviour, businesses can make profits by expanding the market niche, the exit of competitors from the market, increasing demand for goods and services due to limited market supply.

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