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# Emergency Management in Risk Control: Approaches for Surpassing Financial Challenges

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### ABSTRACT

Crisis management is an essential component of strategic planning and forecasting in companies, and its importance has grown significantly in the aftermath of the global crisis caused by the COVID-19 pandemic. While insurance companies traditionally focus on preventing and compensating for negative economic events, effective crisis management is equally crucial for accurate risk assessment, as the stability of the insurance sector directly supports the stability of the wider financial system. The aim of this research was to analyze contemporary perspectives on anti-crisis management in insurance and evaluate the effectiveness of measures applied to overcome crisis situations. To achieve this, the study employed bibliographic-analytical methods, induction, deduction, synthesis, generalization, online surveys, and logical, as well as statistical and graphical, comparison. The findings revealed notable differences in risk management approaches across companies of different sizes. Large insurance companies placed considerable emphasis on training staff in crisis management and employing specialists in analytics and risk assessment. Medium-sized firms often relied on external consultations, scenario planning, and employee training, while small firms generally paid insufficient attention to risk management practices. Among anti-crisis measures and management staff training, the work of strategic planning departments, strengthening teamwork, and financial frugality were associated with the effectiveness, speed, and progressiveness of overcoming an economic crisis with a medium-strength connection. That is why large companies that combined these measures were more effective in overcoming crises. In contrast, medium and small enterprises achieved lower effectiveness, reflecting their more limited and inconsistent adoption of crisis management measures.

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## **1. Introduction**

Anti-crisis management is the basis for the strategic development of a company or industry of various types of activity since it is aimed at preventing negative events, planning development and solving existing and predicted problems that affect the vital activity of the business. Anti-crisis management in insurance is important due to the specifics of the activities of insurance companies, which are based on comparing the profitability of insurance premiums to insurance payments [1]. The calculation of insurance premiums is based on risk analysis and determining the probability of an insured event, which requires complex calculations, analytics, forecasting, and strategic planning of the activities of insurance companies. The strategic approach consists of maintaining a balance between the level of the interest rate, insurance claims, and premiums for covered risks. The experience of highly competitive insurance companies indicates the important role of strategic anti-crisis management in increasing economic and financial stability and improving market positions. Thus, effective management determines the success of a company based on the formation of an organizational and managerial culture, which is determined by the values, beliefs, professionalism of management, behavior and motivation of employees who make business decisions with minimal possible risks [2]. At the same time, the success of insurance companies depends on the external environment, banking activities, liquid liabilities and deposits of the financial system [3].

Along with this, the modern world requires new perspectives on insurance since the principles of doing business, cooperation and company development have changed. The main factors of change have been the widespread use of technology and globalization, which directly affect the construction of insurance risk strategies. Globalization and digitalization have blurred borders and, accordingly, made entrepreneurship more scaleable in terms of cooperation and mutual influence. Therefore, traditional economic risk assessment models do not meet real needs, since they are limited only to the financial component. Instead, insurance strategies should include a comprehensive risk assessment to ensure the optimal distribution of costs and revenues of insurance companies, therefore it is advisable to identify effective principles and measures of anti-crisis management of insurance companies using the example of overcoming the economic crisis. The practical and methodological objectives of the study include identifying effective anti-crisis management tools that can be a recommendation for companies in overcoming economic crisis. The contribution of the study includes identifying a statistically significant relationship between the efficiency, speed, and progressiveness of overcoming the economic crisis and anti-crisis management measures

## **2. Literature review**

Anti-crisis management is regulated at the legislative level on the basis of political initiatives to resolve controversial issues, including in the insurance sector. Effective crisis management contributes to the growth of trust in institutions and involves citizens in cooperation. Anti-crisis management is viewed as a component of risk management in a negative context, however, crises sometimes become a driving force for progress in business development [4]. Small and medium-sized enterprises are most sensitive to emergencies, for which natural disasters, socio-political and economic changes can pose a threat to their existence, while large enterprises have more resources and capabilities to overcome various types of crises [5].

Krishnan *et al.*, [6] proposed a model for improving enterprise crisis management, which included entrepreneurial activity, entrepreneurial orientation and support, which can overcome the crisis and benefit from it. The activity includes the following steps: planning, blitz ideas, frugality, financial prudence, emotional support, flexibility, studying the issue from different sides, agility, efficiency, research and development. Although research, development and implementation of innovations

require the use of resources and funds, which are in short supply in a crisis, those companies that are able to invest in innovations are faster to move from the crisis to the post-crisis period, which can even be progressive for the enterprise [7-10]. Entrepreneurial orientation consists of five components: the ability to experiment and innovate, autonomy of ideas, activity in following the strategy, the ability to overcome calculated risks rather than avoid them, and aggressive competitiveness. Support can include investment, government regulation, digital technologies, human resources management, resources, entrepreneurial thinking, and team effectiveness. The role of digitalization in risk forecasting is important, as machine learning can provide up to 80% accurate information using a linear regression classifier and predicting positive and negative sentiment [11].

Insurance companies are closely related to the banking sector, in particular, through investment activities and risk redistribution. Insurance and banking activities influence each other's activities; consequently, the principles of anti-crisis management and regulation are important for both areas. An example of state regulation as a component of anti-crisis management is the regulation of banking system risks. Given that no banking system is immune to bankruptcy, deposit insurance is a mandatory requirement to ensure the stability of the banking system. Thus, strengthening the legal framework for crisis management and deposit insurance, in particular, in the EU, contributes to increasing financial market stability and public confidence in the banking sector [12]. In the crisis management of the EU banking sector, Hakkarainen and Jokivuolle [13] recommend creating a single structure that would deal with bank liquidation and deposit insurance, since, in contrast to the US system of crisis management of banks, which has centralized regulation (Federal Deposit Insurance Corporation), crisis management of the EU banks is handled by different authorities. Large EU banks fall under the responsibility of the Single Resolution Board, and small ones – under the responsibility of local authorities. Such decentralization and the branched structure in the EU for making decisions on declaring a bank bankrupt or liquidating it slows down decision-making, which negatively affects the process of managing financial difficulties [13].

The development and popularization of crisis management was influenced by the global health crisis associated with the coronavirus pandemic, which has become an indicator of the importance of anti-crisis management in enterprises of different activities and sizes [14]. Although modern companies operate within socio-economic scenarios based on internal risk monitoring strategies, the lockdown has become a global challenge for which they were not prepared [15, 16] since traditional strategies were focused on financial instruments and took into account only internal financial risk and potential. At the same time, the global crisis has shown that this approach is marginal. Moreover, the global crisis has opened up new opportunities for companies through the introduction of digitalization [17].

Thus, risk assessment is not limited only to the financial capabilities of companies, because in addition to economic indicators, technological risks, human resources, environmental, social and cyber risks should be taken into account. The expansion of the scope of risk assessment was caused by the globalization of the economy and the digitalization of business, which opened up new opportunities for marketing, communication and collaboration. For example, artificial intelligence has significantly affected human potential, namely, it has expanded the professional capabilities of employees by offloading automated processes [18]. This allowed employees to focus on creative approaches and complex tasks and helped them overcome crisis situations. Although the pandemic has had a negative impact on most businesses, the digitalization of many processes has opened up new horizons for banking operations, information exchange, and marketing, while the risks of

personal data leakage, fraud, and other cybercrime have become a negative side of process automation [19].

In anti-crisis management, insurance plays the role of a protective mechanism against possible risks since it is the basis of the activities of insurance companies. There are different approaches to anti-crisis measures depending on the specifics of the region. For example, approaches to insurance against natural disasters in different countries differ depending on the climatic conditions of the regions. Thus, island countries such as Indonesia determine the risks of natural disasters in different regions of the country and calculate insurance premiums according to the risk coefficients of natural disasters, the amount of subsidies depending on the number of natural phenomena and regional gross domestic product, which optimizes insurance risks and ensures a fair distribution of resources [20].

During the pandemic, the insurance industry demonstrated its readiness to respond to global emergencies. This flexibility of insurance companies arose as a result of the transformation of classic business models against the backdrop of rising inflation, falling interest rates, the use of digital technologies and macroeconomic challenges [21]. Insurance strategies are different in the context of globalization and digitalization since there are technological, social, environmental, professional, and reputational risks alongside economic risks [22]. Insurance strategies include long-term planning, balancing the interests of insurance companies, managers and customers, introducing innovations and assessing risks taking into account not only financial, but also other factors.

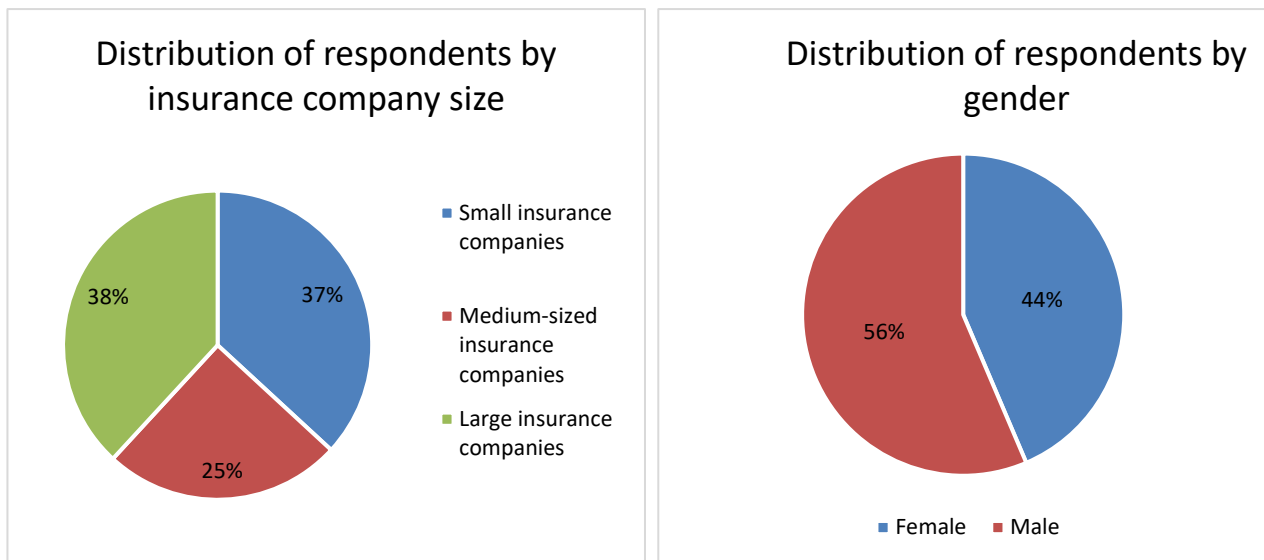
The purpose of the research was to establish modern views on anti-crisis management in insurance and strategies for overcoming financial difficulties as well as to identify their effectiveness in overcoming the crisis.

### **3. Methodology**

For achieving the goal, we used bibliographic-analytical, inductive, deductive methods, methods of synthesis, generalization, survey, and logical, statistical and-graphical comparison. An online survey of 312 employees of insurance companies operating in European countries was conducted to determine the anti-crisis measures that are used and considered most effective in overcoming financial difficulties. The survey was conducted in accordance with ethical standards and after obtaining the voluntary informed consent of the respondents. The personal data of the respondents were not disclosed. The survey was conducted in an online format using Google Forms. The survey results were presented in the form of graphs. The questionnaire questions are given in Appendix 1. Statistical analysis was performed in STATA 12. Pearson's  $\chi^2$  coefficient and Cramer's V coefficient were determined as a criterion for the strength of the connection of the factor of influence on the effectiveness, speed and progressiveness of overcoming the crisis. The results were considered reliable at a p- value < 0.05.

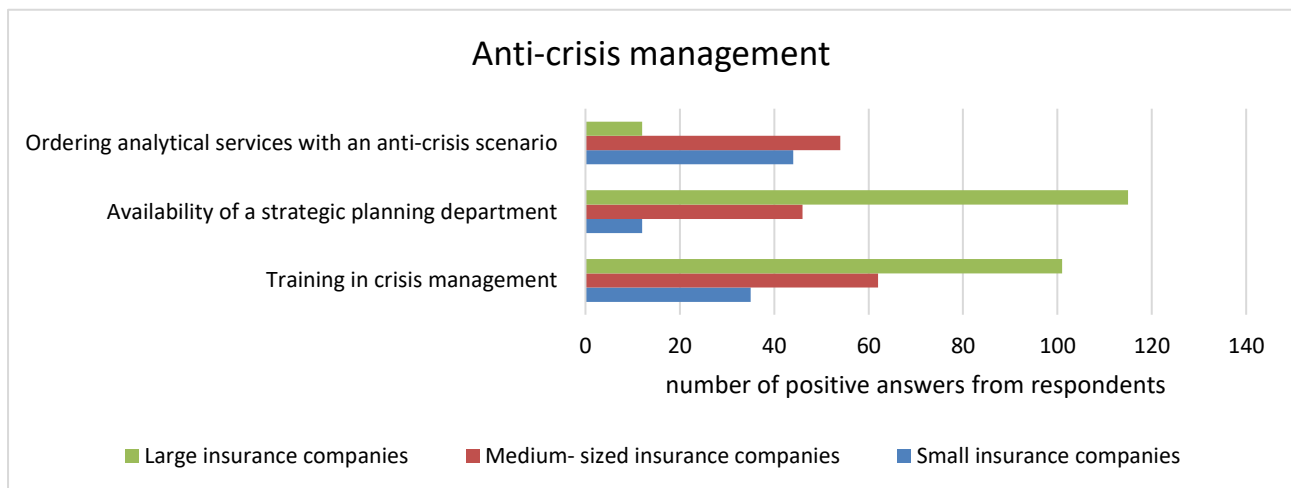
### **4. Results and Discussion**

For the purpose of assessing crisis management in insurance, we analyzed the features of anti-crisis measures in insurance companies based on a survey of employees. Depending on the size of the insurance company, the respondents were divided into 3 groups: the first group consisted of 115 respondents who are employees of a small insurance company; the second group consisted of 78 respondents who work in medium-sized insurance companies; the third group consisted of 119 respondents who are employees of large insurance companies. The distribution of respondents by place of work and gender is shown in Figure 1.



**Fig. 1.** Distribution of respondents by insurance company size (a) and gender (b). Source: compiled by the author based on the survey.

The specifics of approaches to crisis management differed across companies of different sizes. The survey identified which crisis management principles were implemented in the development of insurance companies: training, the presence of full-time employees engaged in strategic planning and risk management, or the use of crisis management consultants. Figure 2 presents the survey results. The questionnaire questions are provided in the Appendix.

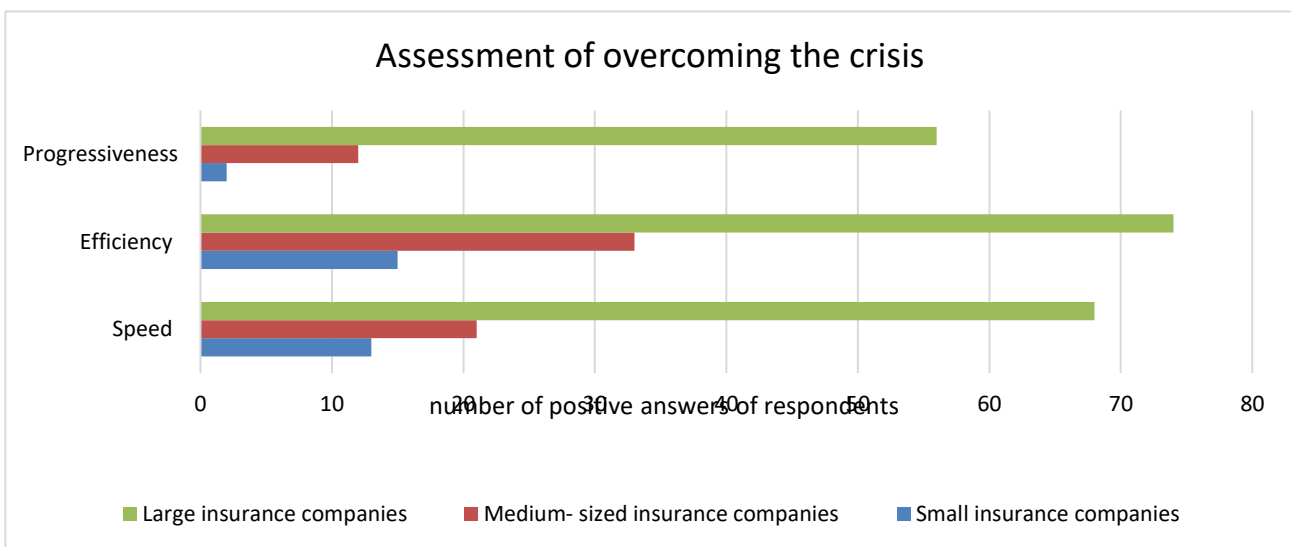


**Fig. 2.** Features of anti-crisis management in insurance companies of various sizes. Source: compiled by the author based on the survey.

According to the survey data, we calculated the percentage of people who gave a positive answer to the question. As can be seen from the survey, large companies in more than 84% prefer to train all staff in the basics of forecasting, planning and risk management. Moreover, more than 97% of large insurance companies participating in the survey have a separate department that deals with internal audits with strategic planning and risk management. In contrast, medium-sized insurance companies pay the most attention to training all staff in anti-crisis measures in more than 79% of companies, 69% of companies use the services of anti-crisis management consultants and 58% of

companies have full-time employees who are engaged in strategic planning. As for small insurance companies, in most cases (38% of companies) they use the services of anti-crisis consultants, 30% train staff in risk management and only 10% of companies have full-time employees who are engaged in risk management.

We compared these results of the features of anti-crisis management and measures to combat the financial crisis with the assessment of overcoming the crisis, which is presented in Figure 3. The assessment included the following criteria: speed, efficiency and progressiveness. Employees of large insurance companies positively assessed the efficiency (64%), speed (59%) of overcoming the crisis and progressiveness (48%). Employees of medium-sized insurance companies assessed overcoming the crisis below average, with efficiency determined at 42%, speed at 26%, and progressiveness received the lowest rating – less than 16%. Employees of small insurance companies negatively assessed the crisis management, as efficiency was identified by 12%, speed by 11%, and progressiveness was indicated by less than 2% of respondents.



**Fig. 3.** Assessment of overcoming the crisis  
 Source: compiled by the author based on the survey

The results of a survey on the assessment of overcoming the crisis and the features of anti-crisis management were compared to determine the impact of the factors of personnel training, the use of consultant services and the presence of a strategic planning department. Pearson's  $\chi^2$  coefficient and Cramer's V coefficient were determined as a criterion for the strength of the connection of the factor of influence on the effectiveness, speed and progressiveness of overcoming the crisis. The results are presented in Table 1.

**Table 1**

Statistical assessment of the impact of anti-crisis management on overcoming the crisis

Type of anti-crisis management	Pearson's $\chi^2$	P - value	Cramer's V
Efficiency			
Anti-crisis training	35.2	< 0.01*	0.24 - medium
Ordering anti-crisis services	0.8	0.36	0.04 – insignificant
Strategic planning departments	15.4	< 0.01*	0.16 – weak

**Table 1**

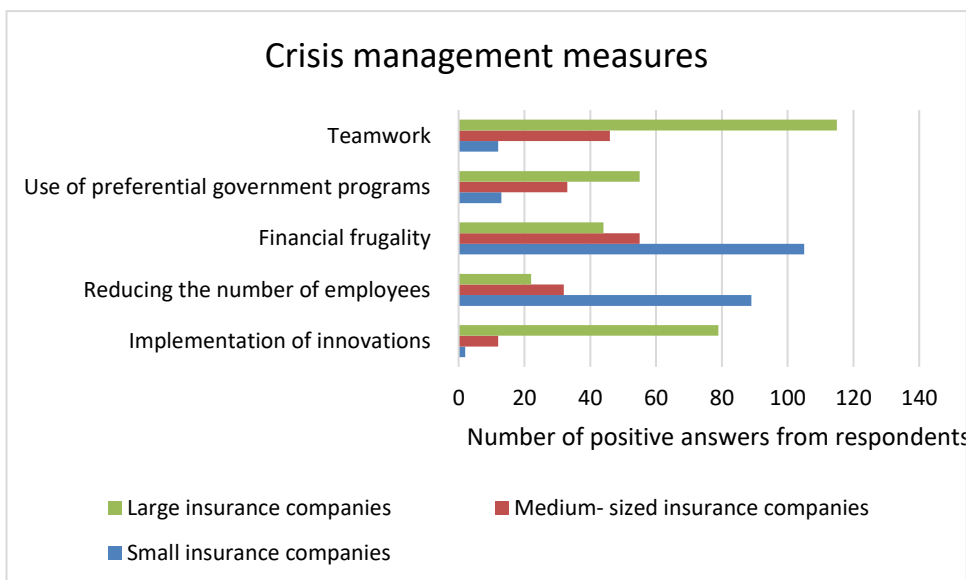
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Type of anti-crisis management	Pearson's $\chi^2$	P - value	Cramer's V
Speed			
Anti-crisis training	56.7	< 0.01*	0.31 -medium
Ordering anti-crisis services	0.6	0.45	0.03 – insignificant
Strategic planning departments	30.9	< 0.01*	0.22 - medium
Progressiveness			
Anti-crisis training	97.0	< 0.01*	0.39 - medium
Ordering anti-crisis services	10.4	< 0.01*	0.13 - weak
Strategic planning departments	63.1	<0.01*	0.32 -medium

Source: compiled by the author based on the survey

As can be seen from the statistical analysis, among the principles of anti-crisis management, training personnel in the basics of anti-crisis management was associated with the effectiveness, speed and progressiveness of overcoming the crisis with a medium-strength relationship. At the same time, the presence of a strategic planning department was associated with the speed and progressiveness with a medium-strength relationship, but the relationship between strategic planning departments and the effectiveness of overcoming the crisis was weak. On the other hand, the use of anti-crisis management consultants was associated only with the progressiveness with a weak-strength relationship, while it was not associated with the effectiveness and speed of overcoming the crisis.

A survey on anti-crisis measures used by companies during the quarantine period and after the end of the pandemic, which was characterized by financial difficulties, is presented in Figure 4. For the purposes of formulating the answer options, we identified five main measures based on the literature analysis: teamwork, government support, financial frugality, reducing the number of employees, and introducing innovations. The survey results differed among employees of insurance companies of different sizes.



**Fig. 4.** Measures to overcome the crisis caused by the COVID-19 pandemic and the political and economic situation over the last 5 years.

Source: compiled by the author based on the survey

Among large insurance companies, measures to improve teamwork prevailed in over 95% and innovation in over 65%. In contrast, 46% of companies used state support programs, financial prudence was used in 37% of cases, and in some cases, staff reductions were made (18% of companies). Medium-sized insurance companies most often used resources and financial prudence in 70% of cases and improved teamwork in 59% of companies. Popular steps were also reducing the number of employees and using preferential state support programs in over 40% of companies. In contrast, innovations were introduced in some cases (15% of cases). Small insurance companies focused on financial frugality in anti-crisis management in 91% of companies and reducing the number of employees by 77%. In some cases, measures to improve teamwork and use of state programs were carried out. Only 2 surveyed employees of small insurance companies, which was less than 2%, identified the introduction of innovations.

To determine the most effective anti-crisis management measures, a statistical analysis of the survey results was conducted (Table 2). Among the measures that were associated with the efficiency, speed and progressiveness of overcoming the crisis, financial frugality were identified with a medium strength of connection especially with progressiveness. Teamwork was associated with the efficiency and speed of overcoming the crisis with a medium strength of connection. In contrast, the connection of innovations and state support programs demonstrated the absence of a connection or a low-strength connection for the efficiency, speed and progressiveness of overcoming the crisis. Reducing the number of personnel was associated with progressiveness and speed, but was not associated with efficiency.

**Table 2**

Statistical assessment of the impact of anti-crisis measures on overcoming the crisis

Anti-crisis measures	Pearson's $\chi^2$	P - value	Cramer's V
Efficiency			
Teamwork	17.4	< 0.01*	0.17 -weak
Government support programs	2.2	0.13*	0.06 – insignificant
Financial frugality	42.2	< 0.01*	0.26 – medium
Reducing the number of employees	3.2	0.08	0.07 – insignificant
Innovations	7.3	< 0.01*	0.11 - weak
Speed			
Teamwork	33.4	< 0.01*	0.21 -medium
Government support programs	<0.1	0.86	< 0.01 – insignificant
Financial frugality	65.4	< 0.01*	0.32 - medium
Reducing the number of employees	11.8	< 0.01*	0.14 - weak
Innovations	1.1	0.29	0.04 – insignificant
Progressiveness			
Teamwork	66.7	< 0.01*	0.33 - medium
Government support programs	7.0	< 0.01*	0.11 - weak
Financial frugality	107.9	<0.01*	0.42 – medium
Reducing the number of employees	34.4	< 0.01*	0.23 -medium
Innovations	2.1	0.15	0.06 – insignificant

Source: compiled by the author based on the survey

As can be seen from the survey results, the best assessment of overcoming the crisis was observed among employees of large companies. Moreover, in addition to the efficiency and speed of overcoming financial difficulties, the companies made progress in development. Such results are explained by the great attention paid to anti-crisis management, which included training all personnel in the basics of crisis management and the allocation of separate departments specializing in analytics, planning strategies and risk assessments. A professional approach to crisis management

allowed large insurance companies to avoid mass layoffs and to overcome the peak of financial difficulties without significant financial constraints. This, in turn, made it possible to invest in innovation and improve teamwork, which led to the progress of the companies' development. The support of large insurance companies by government programs was another positive aspect, which could enabled the above anti-crisis measures to be implemented at minimal cost, but this measure wasn't statistically significant.

In contrast, medium-sized insurance companies coped less effectively with overcoming financial difficulties, which was due to the duration of the crisis period, the focus on financial constraints and the loss of professional personnel. Despite the high level of staff training in anti-crisis measures, the lack of analytical department employees led to the choice of a survival scenario that involved savings and did not include the development of innovations. This approach reduced the competitiveness of medium-sized insurance companies with large insurers, particularly due to the low level of innovation, which, although not related to the effectiveness of overcoming the crisis, nevertheless affected the reputation of the companies.

The worst results were observed in small insurance companies, which identified crisis management as ineffective and long-term. Such results are due to low financing and the development of strategic planning, which negatively affects the long-term development of companies. Given the growing unpredictable risks in today's globalized world, small and medium-sized insurance companies should reconsider their attitude to crisis management in order not only to stay in the market but also to be progressive and competitive. The weak and insignificant connection between government programs and the effectiveness of overcoming the crisis may be related to the low level of government support for small and medium-sized insurance companies. Although the state should be interested in preserving small and medium-sized companies, which make a significant contribution to the stability of the economy.

Our research found that large insurance companies rated their crisis management as highly dependent on training staff in strategic planning and forecasting, as well as the presence of analysts specializing in risk assessments. Similar results were observed in studies by Ursic and Cestar [23], who indicated that companies with a predominantly international focus that actively used crisis management, maintained competitiveness and effectively overcame the financial difficulties related to the COVID-19 pandemic. The improved teamwork in overcoming the crisis was another positive aspect, which both accelerated the crisis and opened up new opportunities for the development of insurance companies. Dwiedienawati *et al.*, [24] also emphasized the importance of teamwork in overcoming financial difficulties but identified leadership as a key aspect of crisis management. In contrast, the introduction of innovations were not significantly connected with efficiency, progressiveness and speed of overcoming the crisis, while authors described a positive impact of innovations which did not bring additional losses [25, 26]. In addition to innovation, Haryono and Wijaya [27] describe readiness for change and open communication with partners and employees as an important factor.

The results of the research indicated low effectiveness of overcoming the crisis among small insurance companies, which did not pay due attention to anti-crisis management before the pandemic began and, as a result, took a long time to recover from the consequences of the crisis, lost professional staff and lagged behind in the implementation of new technologies. This result is explained by the greater vulnerability of small firms due to, among other things, resource limitations. However, the study by Alves *et al.*, [28] indicated that despite the financial limitations of small firms, effective management, which includes training, research into alternative markets, the introduction

of new startups and the presence of a formal crisis plan, contributes to an easier passage of the crisis period with possible positive consequences.

The results of the study demonstrated low support for small and medium-sized insurance companies from government institutions, which limited the ability of less-resourced companies to innovate, retain human resources, and compete with large insurance firms. The importance of government support was also demonstrated in studies by Li *et al.*, [29] which emphasized the importance of the political and economic environment for prevention, response, recovery, and adaptation of business in times of crisis. In contrast, Pu *et al.*, [30] found no direct correlation between effective crisis management by small and medium-sized enterprises and government regulation, with financing and technology integration innovations demonstrating a greater impact. Bondar and Fursova [31] emphasized the role of regulators in controlling and monitoring the risk assessment of insurance companies since insurance companies ensure the stability of financial systems.

Thus, the analysis of the research on anti-crisis management in the field of insurance revealed interest in the topic among scientists, which indicates its relevance. However, insufficient attention was paid to determining the effectiveness of various risk management approaches and promoting anti-crisis management among small and medium-sized insurance companies, which led to a decrease in their competitiveness and market positions. The low support from government agencies for small insurance companies, which a priori do not have the resources to easily overcome the crisis, was another aspect. At the same time, the results of the empirical study showed that the best patterns and results of overcoming the crisis are observed among large insurance companies, which is caused by the availability of more resources as well as by better management quality.

## **5. Conclusions**

The results of the research revealed a positive impact of training personnel in anti-crisis management and the presence of specialists in analytics, strategic assessment and risk forecasting. The most effective anti-crisis measures were improving teamwork, which was confirmed by a positive assessment of the efficiency, speed of overcoming the crisis and progress of large insurance companies. Financial frugality showed the strongest connection with progressiveness, speed and efficiency of overcoming crises. Innovations and state support programs weren't significantly influencing factors, but low level of innovations negatively affects the reputation of insurance companies. Large insurance companies have weathered the crisis better through a comprehensive approach to providing anti-crisis training for staff, the activities of strategic planning departments, the development of teamwork, and reasonable financial constraints. In contrast, insufficient attention to risk management led to low assessments of overcoming the crisis in small and medium-sized insurance companies, where the main emphasis of anti-crisis management was on consulting services. At the same time, the staff reductions caused a long-term recovery from financial difficulties, and low level of innovations limited opportunities for the development of companies and further competitive failure in the insurance market. Further research will include an assessment of the effectiveness of the above anti-crisis measures from the perspective of objective indicators of the profitability of insurance companies.

## **Appendix 1**

Questionnaire example:

1. Please indicate your gender.

2. Choose a place of work:

- A large insurance company;
- Small insurance company;
- Insurance company.

3. What anti-crisis management approaches have been used in your insurance company in recent years:

- Crisis management training;
- The presence of a strategic planning department;
- Order analytical services with an anti-crisis scenario?

4. What crisis management measures have been used in your company in recent years:

- Improving teamwork;
- Use of preferential government programs;
- Financial frugality;
- Reduction in the number of employees;
- Implementing innovations?

5. How do you assess your company's overcoming of the crisis in recent years related to the pandemic and the political and economic situation in the world:

- Effective;
- Fast;
- Progressive.

**Author Contributions**

Conceptualization, N.T. and D.R.; methodology, N.T.; software, N.T.; validation, N.T., D.R. and I.T.; formal analysis, N.T.; investigation, N.T.; resources, D.R. and K.V.; data curation, N.T.; writing-original draft preparation, N.T.; writing-review and editing, N.T. and K.V.; visualization, I.T.; supervision, D.R.; project administration, N.T. All authors have read and agreed to the published version of the manuscript.

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**Data Availability Statement**

All data generated or analysed during this study are included in this article.

**Conflicts of Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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