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# Psychology of Risk in Economic Decision-Making Under Martial Law: Evidence from Ukraine

https://doi.org/10.1515/peps-2024-0053 Received December 4, 2024; accepted May 2, 2025; published online May 22, 2025

**Abstract:** The purpose of the study was to identify the impact of martial law on economic decision-making in the field of business in Ukraine. The aim of the study was to assess the impact of martial law on business decisions, including measuring financial stress levels, risk perception, and financial anxiety. The methodology involved conducting surveys and experiments to understand the impact of risk information on strategic planning, the impact of stress on hiring and firing decisions, the impact of financial stress on pricing, and the impact of uncertainty on investment decisions. This leads to a decrease in the quality of strategic planning and makes it more difficult to focus on important tasks. It was found that organisations with a high level of risk perception usually resort to more conservative approaches. This includes reducing investment and spending on new projects, and frequent pricing adjustments to reduce financial risks. Organisations adapt their strategies to changing economic conditions, which helps to avoid financial losses during periods of high uncertainty. The results of the study also show that high levels of stress among managers lead to a decrease in hiring new employees and an increase in the likelihood of layoffs. Organisations with financial difficulties can raise prices for their products or services to cover rising costs, or lower prices to maintain market competitiveness. The uncertainty caused by martial law leads to a significant reduction in investment in new projects and technologies. Organisations focus their resources on maintaining existing assets and ensuring stability. The findings show that martial law can significantly affect business economic decision-making.

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**Keywords:** business; competitiveness maintenance; investment reduction; strategic planning; risk psychology; psychological features of decision-making

JEL Classification: D81; M21; D23; G32

# **1** Introduction

Economic decision-making under martial law is profoundly influenced by heightened risk perception and psychological stress, which alter the strategies employed by business leaders (Comunale et al. 2020). Previous studies have demonstrated that crises, particularly those involving political and economic instability, significantly impact risk assessment, managerial behaviour, and business strategy (Bondarenko, Korsunenko, and Bondarenko 2024; Syngaivska and Gura 2023). While existing literature provides insights into crisis management and economic decision-making, there remains a substantial gap regarding the specific mechanisms through which martial law conditions influence business risk perception and strategic adaptation (Hale 2015).

Research on economic crises and wartime economies has established that uncertainty and financial stress lead to more conservative decision-making (Hopt 2024; Jola-Sanchez 2022). Firms tend to reduce investment, limit expansion, and alter pricing models to mitigate perceived risks (Aharoni 2024). Furthermore, heightened stress (financial) among managers can contribute to cognitive overload, impairing rational decision-making and prompting shifts towards authoritarian management styles (Hamour 2023). However, while studies have explored general crisis-induced behavioural changes in management, limited research has specifically examined how businesses navigate economic instability caused by martial law (Savchenko 2024; Spytska 2024). A key area requiring further exploration is how business leaders assess and respond to financial uncertainty under martial law (Juneau 2018). Prior research has identified that firms experiencing economic distress may engage in cost-cutting measures, including workforce reductions and conservative pricing adjustments (Karmaker et al. 2023).

The study aimed to ascertain the influence of martial law on economic decisionmaking within the corporate sector in Ukraine. Specifically, the objectives of the study are:

- 1. To analyse how martial law conditions shape business leaders' risk perception and strategic decision-making processes.
- 2. To assess the influence of financial stress on managerial decision-making under uncertainty.
- 3. To investigate how psychological adaptation mechanisms influence business resilience and continuity planning in crisis conditions.

By addressing these aspects, this study contributes to a deeper understanding of economic decision-making in extreme conditions and provides insights into strategic adaptation mechanisms that businesses employ to sustain operations amid crisis-driven uncertainty.

# 2 Literature Review

Behavioural economics provides a relevant theoretical foundation for understanding economic decision-making under martial law, particularly in relation to risk perception and uncertainty. Kahneman and Tversky's Prospect Theory (1979) suggests that individuals evaluate potential gains and losses asymmetrically, with losses often being weighted more heavily than equivalent gains. This framework is particularly useful in explaining why managers and financial decision-makers may exhibit risk-averse behaviour in highly uncertain environments, as observed in the study. Under martial law, the heightened perception of financial and operational risks may lead to conservative decision-making strategies, such as cost-cutting and reduced investment, in an effort to minimize perceived losses. Additionally, the concept of bounded rationality (Simon 1955) is relevant in explaining how cognitive constraints influence decision-making under stress. Managers operating in crisis conditions may rely on heuristics rather than extensive rational analysis, leading to systematic deviations from optimal economic choices. By integrating these theoretical perspectives, the study enhances its ability to interpret findings related to risk-taking behaviour, stress-induced decision-making, and organizational adaptation. The application of behavioural economic theories also facilitates future replication and extension of the research by providing a structured framework for analysing decision-making under extreme uncertainty.

This study seeks to fill these gaps by examining the impact of martial law on risk perception and economic decision-making within the business environment of Ukraine. The research is particularly relevant given the ongoing geopolitical tensions and the imposition of martial law in the country, which have created a unique and challenging context for businesses. By focusing on Ukraine, the study aims to provide insights that can be applicable to other regions facing similar instability. The research delves into the psychological mechanisms underlying risk assessment and decision-making among business leaders operating in high-uncertainty environments. It investigates how these leaders perceive and respond to financial uncertainty, and how their decisions shape organizational.

# **3** Materials and Methods

#### 3.1 Research Design and Approach

This study employed a mixed-methods approach, integrating surveys and controlled online experiments to assess economic decision-making under martial law. The combination of self-reported data and behavioural experiments was chosen to provide both subjective perceptions and objective responses to risk and uncertainty. The study was conducted between April and June 2024, with data collected from professionals across various industries. The experimental design ensured controlled exposure to economic scenarios to evaluate decision-making patterns.

#### 3.2 Sample and Participant Selection

The study involved 480 participants, recruited through professional networks (LinkedIn), social networks (Facebook, Telegram), business communities, and web platforms (Google Forms, SurveyMonkey). Participants were selected based on job title, professional experience, age, and gender, ensuring a diverse sample relevant to managerial decision-making under crisis conditions. The sample was divided as shown in Table 1.

Respondents completed a preliminary survey (Appendix A) to assess their professional background, stress levels, financial anxiety, and risk perception. The selection of managers, analysts, and specialists was based on their role in business decision-making, ensuring the study addressed key economic and psychological dimensions of crisis response (Table 2).

Category	Participants (N)	Gender (M/F)	Age group 1 (23–34)	Age group 2 (35–44)	Age group 3 (45+)
Middle Managers	60	30/30	20	20	20
Senior Managers	60	30/30	20	20	20
Financial Analysts	60	30/30	20	20	20
Project Managers	60	30/30	20	20	20
HR Specialists	60	30/30	20	20	20
Economic Analysts	60	30/30	20	20	20
Investors	60	30/30	20	20	20
Financial Consultants	60	30/30	20	20	20

Table 1: Distribution of participants by role, gender, and age group.

Research question	Participants involved	Number of participants
1. Impact of risk information on strategic planning	Middle Managers, Senior Managers, Project Managers, Financial Analysts	240
2. Impact of stress on employee hiring and layoff decisions	HR Specialists, Middle Managers, Senior Managers, Financial Advisors	240
3. Evaluation of investment decisions in the face of uncertainty	Investors, Financial Analysts, Economic Analysts	180
4. Impact of financial stress on pricing decisions	Middle Managers, Senior Managers, Finan- cial Consultants, Project Managers	240

**Table 2:** Distribution of participants across research questions.

Participants were assigned to the research questions according to their professional roles and degrees of engagement in economic and strategic decisionmaking processes amid uncertainties and crises, including martial law. This method facilitates a precise evaluation of the impact of diverse elements on decision-making, contingent upon the participant's role within the organisation, their degree of responsibility, and the particulars of their work.

#### 3.3 Experimental Procedures

The experimental component was conducted using the Qualtrics platform (Appendix B), where participants were exposed to two distinct economic forecast scenarios: a negative scenario involving economic downturn, military threats, and market recession, and a neutral/positive scenario featuring market recovery and reduced geopolitical tensions. These scenarios were developed based on prior research and validated by economic experts (Hanlon, Yeung, and Zuo 2022) and validated by economic experts. Each participant was randomly assigned to one scenario and asked to make decisions regarding hiring, investment, pricing, and risk management strategies. The randomization of scenario allocation ensured that the results reflected unbiased decision-making processes under varying degrees of uncertainty (Appendix C).

The experimental protocol involved participants completing the tasks remotely, with an average session duration of approximately 45 min. Detailed instructions and examples of decision-making tasks were provided before the experiment began. Data was collected using Qualtrics and stored securely, with participant information remaining confidential and used solely for research purposes in compliance with

privacy regulations. The analysis was conducted using R statistical software, employing descriptive and inferential statistical methods. Robustness checks were conducted to validate findings and address potential sampling bias.

#### 3.4 Measurement Instruments

The study employed four validated scales to assess psychological and financial factors affecting decision-making:

- Risk Perception Questionnaire (RPQ) (Dingus et al. 2014): Originally designed for driving risk assessment, this scale was adapted to business decision-making by modifying context-specific items. Items related to physical risks were replaced with financial and managerial risk scenarios.
- Perceived Stress Scale (PSS) (2024): Measures the subjective level of stress participants experience in economic decision-making.
- Financial Anxiety Scale (2024): Evaluates financial concerns and their impact on strategic decisions.
- Risk-Taking Propensity Scale (2024): Assesses participants' willingness to engage in high-risk economic decisions.

All scales were translated into Ukrainian using a back-translation process to ensure linguistic accuracy and contextual appropriateness.

### 3.5 Ethical Considerations and Data Analysis

All participant information remained confidential, with data used solely for research purposes in compliance with privacy regulations. The analysis was conducted using R statistical software, employing descriptive and inferential statistical methods. To address potential sampling bias, randomization was applied in scenario assignment, and robustness checks were conducted to validate findings.

# 4 Results

#### 4.1 Characteristics of Respondents and Stress Factors

83 respondents have been working in their current jobs for less than 1 year, 121 respondents - for 1–3 years, 133 respondents - for 4–7 years, and 143

respondents – for more than 7 years. The main areas of activity of respondents in organisations are as follows: 87 respondents are engaged in financial management, 79 respondents specialise in personnel management, 93 respondents work in project management, 104 respondents are engaged in investment analysis, and 117 respondents are engaged in economic analysis. The tasks that participants regularly perform as part of their work are as follows: 94 respondents develop business strategies, 82 respondents make decisions on admission and dismissal, 101 respondents evaluate investment opportunities, 97 respondents develop and monitor financial plans, and 106 respondents manage projects. The results of the stress assessment over the past three months are as follows: 34 respondents rated their stress level at 1, 51 respondents – at 2, 63 respondents – at 3, 47 respondents – at 4, 39 respondents - at 5, 49 respondents - at 6, 57 respondents - at 7, 45 respondents – at 8, 43 respondents – at 9, and 52 respondents – at 10. Most participants rate their stress levels between medium and high values, which may indicate a significant impact of stressors on their performance. Regarding the frequency of risky situations at work, it was found that 148 people face risks sometimes, 161 people – often, and 171 people – constantly. 162 people indicated that the organisations they work for are actively involved in developing strategies to adapt to the economic crisis or martial law. 158 people indicated that organisations monitor changes and adapt as needed, and 160 people indicated that their organisations have limited participation in these issues. 167 people noted that the main problems are changes in business strategies and with supply or logistics, 153 people pointed to financial difficulties, 159 people – to management challenges, and 152 people noted other problems (violation of labour rights, increased competition, problems with technology adaptation).

### 4.2 Risk Perception and Decision-Making Under Uncertainty

The experiment involved 240 respondents divided into four groups of 60 people each: middle managers, senior managers, project managers, and financial analysts. These participants were presented with two scenarios, negative and neutral or positive, to predict the development of events. The purpose of this experiment was to understand the strategic choices, either conservative or aggressive, and the investment readiness of different managerial roles under varying economic forecasts. Middle managers, who are often involved in day-to-day operations and tactical decisions, reflect immediate operational concerns in their choices. Senior managers, responsible for strategic decisions, indicate long-term organizational goals and risk tolerance. Project managers focus on project-specific goals and deadlines, reflecting project-level risk management in their strategies. Financial analysts provide financial insights and forecasts, with their choices reflecting financial prudence and market analysis.

Participants were given two scenarios for predicting the development of events: negative and neutral/positive. In the case of negative forecasts (economic crisis, growing military threats, market recession - this is a period of significant and prolonged decline in economic activity, which is accompanied by a decrease in gross domestic product (GDP)), an increase in unemployment, a reduction in consumer spending and investment, and a general decline in economic well-being (Hanlon, Yeung, and Zuo 2022). 25 mid-level managers have chosen a conservative strategyfocused on reducing risks and saving resources by limiting new investments and reducing costs (Wachter and Kahana 2024). While 10 people chose an aggressive strategy, aimed at actively expanding the market, increasing investment and implementing new projects, despite the increased risks (Wuepper et al. 2023). Among senior managers, 29 people chose the conservative strategy, while 8 responders chose the aggressive one. In the face of negative forecasts, project managers developed a conservative strategy in 33 cases and an aggressive one in 12 cases. Financial analysts were also cautious, choosing a conservative strategy 27 times and an aggressive one 11 times.

As for readiness to invest (investing resources (financial resources, assets, time or other means) for the purpose of making a profit or achieving other benefits in the future (Oehmke and Opp 2024)), middle managers expressed their willingness to invest in 18 cases, senior managers – in 15 cases, project managers – in 20 cases, and financial analysts – in 22 cases. Level of risk management (the process of identifying, evaluating, and managing risks to minimize their impact on the organization and ensure stability in conditions of uncertainty was high in 33 middle managers (Zhan et al. 2024)), 32 senior managers, 30 project managers, and 28 financial analysts. In case of neutral or positive forecasts (economic stability, market recovery, reduction of geopolitical tensions 12 middle managers chose a conservative strategy (Chodorow-Reich et al. 2024)), and 42 – an aggressive one. Senior managers were divided into 16 people who chose a conservative strategy and 43 people who chose an aggressive one. Among project managers, 14 people developed a conservative strategy, and 38 – an aggressive strategy. Financial analysts showed the greatest willingness to use aggressive strategies with 41 cases compared to 11 cases of conservative strategies. In terms of investment readiness, middle managers showed high readiness in 35 cases, senior managers – in 33 cases, project managers – in 34 cases, and financial analysts – in 36 cases. High-level risk management was selected by 25 mid-level managers, 27 senior managers, 28 project managers, and 30 financial analysts.

Data on differences in men's and women's approaches to strategic planning under different levels of uncertainty show significant differences. Men were more likely to lean towards conservative strategies in the case of negative forecasts. They were cautious in their planning, which included reducing investment, implementing strict risk management, and adapting their business strategy to conditions of high uncertainty. Among men who received negative forecasts, 85 people chose the conservative approach, while among women, only 58 people chose this approach. Women were more likely to show flexibility and willingness to change in the event of a positive prognosis. They showed a greater willingness to use aggressive strategies, including market expansion and investment, when the situation looked favourable. Among women who received positive prognoses, 88 people chose an aggressive approach, compared to 76 men. There are also noticeable differences in the age distribution: younger participants (age group 1) showed a greater propensity for aggressive strategies than older age groups. Men in age group 1 were more likely to show a willingness to make risky investments, while women in the same age group were more likely to use aggressive strategies in the face of positive forecasts. Older participants (age groups 2 and 3) generally tended to adopt conservative approaches, regardless of gender, and showed greater caution in planning in the face of uncertainty.

#### 4.2.1 Decision-Making in Response to Forecasts

Risk Perception Questionnaire showed that participants with negative forecasts, such as an economic crisis or rising military threats, had a higher level of risk perception. Middle managers rated risks at an average of 7.3, and 16 people indicated a very high level of risk perception. Senior managers showed an even higher risk score, with an average score of 7.6, and 18 people indicated a very high level of risk perception. Project managers and financial analysts had slightly lower estimates, but also noted a high level of risk perception in negative forecasts. For positive forecasts, such as economic stability and market recovery, risk perception estimates were significantly lower. Mid-level managers rated risks on average at 4.8, senior managers at 5.1, project managers at 5, and financial analysts at 4.9, with fewer individuals indicating a low level of risk perception. The results of the Risk-Taking Propensity Scale demonstrate the behaviour of managers and specialists in the context of negative and positive economic forecasts (Table 3, Figure 1).

Participants with negative forecasts showed a more cautious approach to risk, while positive forecasts encouraged a greater willingness to make risky decisions. The difference in scores between different groups reflects the impact of professional roles on decision-making strategies in the face of uncertainty. 10 — T. Shcherban et al.

#### Table 3: Risk-taking propensity.

Category	Negative forecasts (average rating)	Number of people with high-risk readiness (negative forecasts)	Positive forecasts (average score)	Number of people with high-risk readiness (positive forecasts)
Middle managers	3.8	14	6.2	20
Senior managers	3.6	12	6.5	22
Project managers	4.1	16	6.4	19
Financial analysts	3.7	13	6.1	21

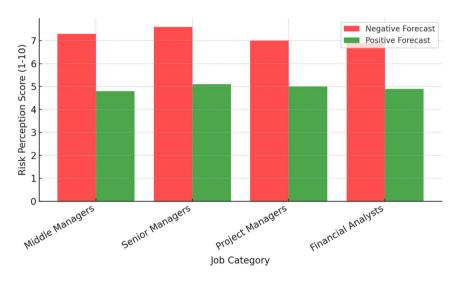


Figure 1: Risk perception under different economic forecasts.

## 4.3 Impact of Financial Stress on Employment and Pricing Strategies

Participants were divided into two subgroups: one worked under high stress (120 people, 30 representatives from each group), and the other – under standard conditions (120 people, 30 representatives from each group).

Under stressful conditions, HR specialists made 105 dismissal decisions, of which only 58 were justified. The hiring decision was made 47 times, of which 29 were justified. The average decision-making time was 5 min and 34 s, which indicates haste and increased impulsivity. Middle managers made 92 dismissal decisions, of which 55 were rational, and 36 hiring decisions, of which 22 were justified. The average decision-making time was 6 min and 12 s. Senior managers made 75 dismissal decisions, of which 53 were rational, and made 28 hiring decisions, of which 20 were justified. The average decision-making time was 7 min and 8 s, which also indicates a decrease in the validity of actions. Financial advisors made 63 dismissal decisions, of which 45 were justified, and made 25 hiring decisions, of which 18 were justified. The average decision-making time was 8 min and 17 s, which also indicates an increase in haste when making managerial decisions.

Under standard conditions, HR specialists made 78 dismissal decisions, of which 61 were justified. Hiring decisions were made 58 times, of which 45 were rational. The average decision-making time was 9 min and 21 s, which indicates a more thorough analysis of the situation. Middle managers made 68 dismissal decisions, of which 51 were rational, and 47 hiring decisions, of which 36 were justified. The average decision-making time was 11 min and 4 s, which confirms a higher level of thoughtfulness under standard conditions. Senior managers made 52 dismissal decisions, of which 44 were rational, and 37 hiring decisions, of which 29 were justified. The average decision-making time was 12 min and 15 s, which indicates a higher level of balance compared to stressful conditions. Financial advisors made 41 dismissal decisions, of which 36 were justified, and made 33 hiring decisions, of which 27 were justified. The average decision-making time was 13 min and 6 s, which demonstrates greater caution and validity of decisions under standard conditions.

The results showed that participants who worked under stress showed reduced rationality in hiring and firing staff decisions. Decision-making time has been significantly reduced, which indicates increased impulsivity of actions. In contrast, under standard conditions, decisions were more balanced, with a higher level of validity, which highlights the importance of a stable work environment for effective HR management. The two subgroups were equally male and female (30 men and women each). In a subgroup that worked under high stress, men made 140 dismissal decisions, of which 90 were justified, and 58 hiring decisions, of which 37 were justified. The average decision-making time was 6 min and 2 s. Women in the same subgroup made 138 dismissal decisions, of which 106 were justified, and 50 hiring decisions, of which 30 were justified. The average decision-making time was 6 min and 29 s. In the subgroup working under standard conditions, men made 147 dismissal decisions, of which 126 were justified, and 63 hiring decisions, of which 54 were justified. The average decision-making time was 10 min and 51 s. Women made 139 dismissal decisions, of which 122 were justified, and 65 hiring decisions, of which 52 were justified. The average decision-making time was 11 min and 23 s.

#### 4.3.1 Gender and Age-Based Differences in Risk Perception and Decision-Making

By age group, younger participants (23–34 years old) showed a tendency to make faster decisions, but their decisions were less justified in both stressful and standard settings. The middle age group (35–44 years) showed the most balanced approach with moderate decision-making time and high reasonableness under standard conditions. Under stressful conditions, their decisions were somewhat less well-founded, but still more balanced compared to the younger participants. Older participants (over 45 years of age) spent the most time making decisions, which improved the quality of their decisions in standard settings. Under stressful conditions, their decisions were the most cautious, but also less rapid. The results of the experiment show that gender and age influence the way decisions are made about hiring and firing employees, in particular, the speed and validity of decisions. The results of using the Perceived Stress Scale and Financial Anxiety Scale in the experiment showed significant differences between subgroups under high stress and standard conditions (Table 4).

Men have higher levels of stress and anxiety compared to women. Age groups have similar levels of stress and anxiety in high-stress environments. Under standard conditions, stress and anxiety levels are significantly reduced for all age groups. The experiment involved 180 respondents divided into three groups of 60 people each: investors, financial analysts, and economic analysts. Participants were involved in assessing investment opportunities in the face of uncertainty. This allowed investigating their risk propensity and the impact of such conditions on investment decision-making.

Group	Name of the survey/scale	Men (average score)	Women (average score)	23–34 years old	35–44 years old	45+ years old
High stress	Perceived Stress Scale	30.1	28.7	29.2	29.8	29.4
	Financial Anxiety Scale	32.5	30.3	31.8	32	31.2
Standard conditions	Perceived Stress Scale	18.1	17.4	17.7	18.1	17.9
	Financial Anxiety Scale	21.8	21	21.5	22.2	21.3

 Table 4: Indicators of test tools.

With high uncertainty, 71.5% of investors chose risk-free investments, while with low uncertainty, this figure decreased to 46.7 %. This indicates a 24.8 % increase in risk propensity while reducing the level of uncertainty. Among financial analysts, 62.9% recommended risk-free investments in conditions of high uncertainty. compared to 38.3 % in conditions of low uncertainty. Risk propensity decreased by 24.6 % with high uncertainty. It was found that 66.7 % of economic analysts chose risk-free investments with high uncertainty, while at low uncertainty this figure was 50.5 %. This indicates a 16.2 % reduction in risk propensity with high uncertainty. In the face of high uncertainty, 72.4 % of investors adapted their strategies to a more conservative approach, compared to 40.9% in the face of low uncertainty. This indicates a 31.5 % increase in strategy conservatism with high uncertainty. Financial analysts revised their forecasts and recommendations to reduce risks in 70.8 % of cases with high uncertainty, compared to 50.1% with low uncertainty. Revision of strategies increased by 20.7 %. Among economic analysts, 76.3 % changed their recommendations for high uncertainty, compared to 52.9 % for low uncertainty. The increase in the impact of uncertainty on recommendations was 23.4 %.

As for changes in investment approaches, in conditions of high uncertainty, 62.8 % of investors began to use more conservative approaches, compared to 37.1 % with low uncertainty. This indicates a 25.7 % reduction in risk propensity. Financial analysts adapted their investment approaches in 56.9% of cases with high uncertainty, compared to 38.7 % with low uncertainty. Changes in approaches increased by 18.2 %. The impact on investment approaches was noticeable in 71.6 % of economic analysts with high uncertainty, compared to 47.3 % with low uncertainty. Adaptation growth was 24.3%. According to the Risk Perception Questionnaire, with high uncertainty, the average score was 8.3 out of 10, indicating a high level of anxiety among participants. 76.4 % of participants rated the investment as high-risk. With low uncertainty, the average risk perception score dropped to 5.6. Only 42.1% of participants considered the investment to be high-risk, and 7 people reported a very low level of risk perception. For the Risk-Taking Propensity Scale, the results also differ depending on the level of uncertainty. With high uncertainty, the average risk propensity score was 4.3 out of 10. Only 21.7 % of participants showed a high willingness to take risks, which indicates a cautious approach to risky investments. With low uncertainty, the average risk propensity score rose to 6.8, and 55.4 % of participants showed high risk readiness. The data show that in conditions of high uncertainty, participants have a higher level of risk perception and a lower willingness to make risky decisions. With low uncertainty, risk perception decreases and risk readiness increases.

The experiment involved 240 respondents divided into four groups of 60 people each: middle managers, senior managers, financial consultants, and project managers. The aim of this experiment was to examine how financial stress influences pricing strategies. Middle managers' pricing strategies under stress reflect operational adjustments to maintain stability. Senior managers make strategic pricing decisions under stress to balance market position and financial health. Financial consultants provide advice on financial strategies, with their choices reflecting market trends and client needs. Project managers focus on project-specific financial management, with their strategies reflecting budget constraints and project viability.

Participants were divided into two subgroups depending on the level of financial stress: high and low. Each subgroup included 30 people from the professional category. In the high financial stress group, 44 out of 60 middle managers chose aggressive pricing strategies (the process of determining the value of goods or services that considers cost, demand, market competition, and the company's financial goals) (Olawale et al. 2024), in particular, a significant reduction in prices. In the low financial stress group, only 24 out of 60 middle managers chose aggressive strategies, while a conservative approach such as maintaining stable prices prevailed. Among senior managers, 43 out of 60 participants in the high financial stress group also chose aggressive pricing strategies, including significant price cuts. In the low-financial stress group, 23 out of 60 senior managers used aggressive strategies, but in smaller numbers.

Among financial advisors, 39 out of 60 participants in the high-financial stress group chose aggressive strategies, such as lowering prices, to stimulate demand. In the low-stress group, 25 out of 60 financial advisors chose aggressive strategies, but there were fewer of them. Among project managers, 38 out of 60 participants in the group with high financial stress chose aggressive pricing strategies, in particular, price reduction. In the low-financial stress group, 23 out of 60 project managers chose aggressive strategies. High financial stress leads to a greater propensity for aggressive pricing strategies, including significant price cuts, while low financial stress is dominated by conservative strategies with fewer changes in pricing policy. Participants with high financial stress are more likely to respond to changes than those with low stress.

In an experiment to investigate the impact of financial stress on pricing decisions, two scales were used: the Perceived Stress Scale and the Financial Anxiety Scale. PSS showed that in the group with high financial stress, average scores were 78.3 for men and 80.5 for women. In the group with low financial stress, average scores were significantly lower: 35.6 for men and 37.2 for women. By age group: in the 23–34 age group, the average scores for high stress were 76.4 for men and 78.7 for women; in the 35–44 age group, 78 for men and 80.1 for women; in the over 45 age group, 79.2 for men and 81.8 for women. The Financial Anxiety Scale helped show that in the group with high financial stress, the average scores were 72.4 for men and 74.6 for women. In the group with low financial stress, the average scores were 30.8

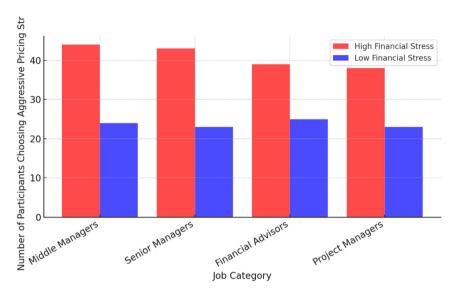


Figure 2: Impact of financial stress on pricing strategies.

for men and 32.1 for women. By age group: in the age group 23–34 years, the average scores for high stress were 70.3 for men and 72.8 for women; in the age group 35–44 years – 72 for men and 73.6 for women; in the age group over 45 years–74.1 for men and 76.3 for women. The results demonstrate a significant impact of financial stress on stress levels and financial anxiety, which directly affects pricing decisions (Figure 2).

The results obtained indicate the importance of considering psychological aspects when making economic decisions under martial law. This study helped to identify how financial stress, risk perception, and anxiety affect the behaviour of managers and professionals when making investment, pricing, and HR decisions. Knowing how various factors, such as high levels of stress or increased risk perception, alter decision-making strategies allows organisations to better adapt management approaches, reduce the impact of crisis conditions, and improve management efficiency. This allows developing more sustainable strategies that will help businesses remain competitive even in conditions of uncertainty.

The conditions of the economic crisis, in particular, the growth of military threats, encourage managers to choose conservative strategies aimed at reducing risks. This result is consistent with the study by Gao, Harrison, and Tchernis (2023), where it was found that in conditions of high economic uncertainty, managers often prefer strategies aimed at preserving capital and minimising losses. Both studies emphasise that in high-risk environments, stability and security are prioritised,

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which requires limiting investment initiatives. This study indicates a tendency to cautious behaviour among managers at different levels, while the study by Gao, Harrison, and Tchernis (2023) focuses on macroeconomic conditions that influence decision-making. This highlights the importance of considering the economic context and psychological factors when analysing business strategies in crisis situations.

## **5** Discussion

In the face of neutral or positive economic forecasts, financial analysts showed the greatest readiness for aggressive strategies, which contradicts the study by Buera, Kaboski, and Shin (2021), which showed that during periods of economic stability, financial analysts tend to choose more conservative strategies to ensure long-term stability. The authors of this study note that in the face of positive economic forecasts, financial analysts often reduce their willingness to take risks and prefer strategies that provide gradual but stable growth. In this study, the opposite trend was observed: with increasing economic stability, financial analysts showed a greater tendency to aggressive investment decisions, which can be explained by an increase in optimism and confidence in the stability of the economic environment. This difference may reflect changes in risk attitudes in current market conditions, where perceptions of stability may contribute to more proactive investment strategies than in previous studies.

Men are more likely to choose conservative strategies in the face of negative economic forecasts, while women are more likely to choose aggressive strategies in the case of positive forecasts. This is consistent with the study by Beer, Barnes, and Horne (2023), which also showed that in the face of negative forecasts, men tend to make cautious decisions, while women, on the contrary, show a greater willingness to take risks when the situation looks favourable. The researchers emphasise that such differences may be related to different perceptions of risk and opportunity among men and women, and their psychological response to changes in the economic environment. This is consistent with the results of this study, which revealed similar trends in strategic planning, depending on the forecasts of events. The results of this study confirm the conclusions of Beer, Barnes, and Horne (2023), showing that strategic decisions in the face of uncertainty depend not only on the type of prognosis, but also on gender differences in risk perception.

In the face of negative forecasts, such as an economic crisis or rising military threats, middle and senior managers had a high level of risk perception, with scores of 7.3 and 7.6, respectively. This fact does not coincide with the study by Uwaoma et al. (2023), which shows that in the face of negative forecasts, the level of risk perception does not always increase and may remain stable or even decrease due to a decrease

in risk sensitivity under long-term stress. The authors of this study found that with negative forecasts, participants can adapt to risk conditions, which reduces their perception of risk. The results of this study indicate a high perception of risk in response to negative economic forecasts, which may be due to a short-term response to a crisis situation, which increases fear and anxiety, differing from the adaptive mechanisms described by Uwaoma et al. (2023).

Under stressful conditions, HR professionals make decisions about hiring or firing staff faster than in standard conditions. This fact coincides with the results of the study by Soeters (2023), which showed that stress leads to an increase in the speed of decision-making and a decrease in their quality. The researcher notes that under stress, people tend to think less carefully about decisions due to increased anxiety and reduced cognitive resources. The results of this study support these findings, demonstrating that stressful conditions significantly reduce decision-making time and reduce their validity, which may be the result of increased impulsivity and reduced opportunities for in-depth analysis of the situation.

With high uncertainty, most investors choose risk-free investments, while with low uncertainty, the risk propensity increases. The results are consistent with the study by Geloso and Pender (2023), which also found that investors in high uncertainty are more focused on risk-free assets to avoid potential losses. The authors note that increased uncertainty forces investors to reduce risks by choosing more stable investment instruments. Both studies confirm that a high level of uncertainty leads to an increase in demand for risk-free investments among various categories of investors.

High financial stress leads to a greater propensity for aggressive pricing strategies, especially significant price cuts, compared to low financial stress, where conservative strategies predominate. This fact contradicts the findings of Barbaglia, Consoli, and Manzan (2023), who note that financial stress has less influence on the choice of pricing strategy, and that even in conditions of high stress, organisations usually adhere to conservative approaches to pricing policy. The authors argue that financial stress may have a greater impact on other aspects of business management, such as investment decisions or strategic planning, rather than directly on pricing policy. The results of this study show that high financial stress really leads to a more aggressive approach to pricing policy. This may be due to the need to urgently stimulate demand or fight for market share in the face of financial difficulties. Participants exercise caution in negative economic forecasts, while positive forecasts increase their willingness to make risky decisions. The results of this study do not coincide with the conclusions of Pandey, Lucey, and Kumar (2023), who note that negative economic forecasts do not always lead to a decrease in risk readiness. According to Pandey, Lucey, and Kumar (2023), in situations of negative forecasts, entrepreneurs may become riskier, trying to compensate for possible losses through aggressive strategies. The results of this study emphasise that negative forecasts, as a rule, lead to a more cautious approach to risk. This may be due to context features or the presence of specific stress factors that were not considered by Pandey, Lucey, and Kumar.

Younger participants (23–34 years old) make decisions faster, but less reasonably, compared to the middle and older age groups. This fact does not coincide with the findings of Rohner (2024), which indicates that young people usually show a high level of detailed analysis when making decisions, even under stressful conditions. The author emphasises that their decisions often have greater validity due to their tendency to carefully collect information. The difference in results may be due to the fact that Rohner (2024) analysed decision-making in the context of long-term planning, while the current study focuses on the speed and validity of decisions under stress. The majority of respondents rate their stress levels at medium to high levels, which indicates a significant impact of stress factors that are associated with martial law conditions. This doesn't quite match up with the findings of Cardoza et al. (2023), which showed that stress at work is mainly associated with information overload and deadlines, and not with crisis conditions. The researchers note that in the case of a normal work environment, the main sources of stress are often associated with organisational changes and high requirements. The difference may be conditioned by the fact that in the study by Cardoza et al. (2023), respondents were not under martial law, where high levels of stress are caused by immediate threats to life. The main problem that organisations face in this study is changes in business strategies and problems with supply or logistics under martial law. This does not coincide with the findings of Banna et al. (2023), which showed that most organisations mostly focus on financial difficulties during economic crises, and supply and logistics issues are not so critical. The authors noted that financial problems are often considered a higher priority for management, since they directly affect the viability of the business. The results of this study indicate that the organisations selected for the study are more focused on operational aspects, which can be explained by the specifics of the industries or regions in which respondents work.

During the discussions, it was confirmed that the level of stress under martial law significantly affects decision-making, which shows different results compared to studies of stress in other contexts. High levels of stress caused by instability and threats of martial law lead to changes in organisations' adaptation strategies and affect the speed and validity of decisions. This highlights the significant impact of specific stressors on workflows and decisions, which is different from the impact of stress under normal conditions.

During martial law, economic decisions are often made in conditions of high uncertainty, so it is recommended to train managers and specialists in flexible thinking and skills to quickly adapt to changes, which will help to reduce the impact of stress on decision-making. Companies should create support programmes, including stress management and psychological resilience training, to help employees reduce the impact of stress on their productivity and make risky decisions. It is recommended to use proven risk management models to analyse and reduce the impact of external factors on economic decisions, including financial risk assessment, scenario analysis, and crisis planning (Malanchuk, Tryhuba, and Rudynets 2024). In companies, it is advisable to create specialised teams that would deal exclusively with crisis management and decision-making issues in high-risk conditions. Such teams should include specialists in management, finance, and psychology. It is recommended to conduct stress tests and simulations of possible crisis situations to prepare the business for unforeseen events, which will help to better understand the company's vulnerabilities and increase readiness for risky conditions (Bratiuk and Feier 2024).

The use of analytical platforms, forecasting systems, and artificial intelligence will help businesses quickly identify potential risks, respond to market changes, and optimise their decision-making process. When making decisions under stress, it is recommended to involve psychologists and coaches to work with managers, which will help them manage their emotional state more effectively and make informed decisions (Kanyhin et al. 2025; Yatsiv et al. 2024). During times of financial stress, companies must implement flexible pricing strategies that would allow them to quickly adapt to market changes. Both aggressive and conservative approaches to pricing should be considered, depending on the current situation. It is important to ensure transparent communication within the company, providing employees with up-to-date information about economic risks and strategic plans, which will reduce uncertainty and facilitate more informed decisions. It is recommended to organise training on risk-based decision-making for managers at various levels, which will help improve the ability to assess risks, consider stress factors, and make effective decisions even in conditions of high uncertainty. These recommendations are aimed at improving the efficiency of economic decision-making in difficult conditions of martial law and maintaining the psychological stability of managers and specialists.

The study underscores the substantial influence of economic forecasts and stress on decision-making, providing critical insights for both policy-makers and businesses. Positive economic forecasts generally encourage more aggressive strategies, driven by increased optimism and confidence, while negative forecasts tend to prompt more conservative approaches, reflecting caution in the face of uncertainty. Notably, the research reveals significant gender differences in risk perception, with men typically opting for more cautious strategies during negative forecasts, while women are more inclined to take risks when conditions are favourable. Furthermore, high stress levels, especially under extreme circumstances such as martial law, accelerate decision-making but often undermine its quality, highlighting the need for businesses to develop effective stress management mechanisms and adaptive strategies. In response to these challenges, organizations should embrace flexible pricing strategies capable of withstanding financial pressures, ensuring their resilience in fluctuating economic environments. Policies that prioritize transparent economic forecasting and initiatives aimed at reducing workplace stress will be crucial in helping businesses make informed, timely decisions while maintaining organizational stability.

Several limitations should be noted. First, while randomization was applied in the experimental design, the sample itself was not random, as recruitment was based on professional networks. Future research should incorporate probability sampling methods to enhance generalizability. Second, self-reported stress and anxiety measures may be influenced by subjective biases; thus, future studies could integrate physiological measures of stress. Finally, although back-translation was employed to ensure accuracy in survey instruments, subtle nuances may still have been lost in translation. Future research could conduct validation studies with bilingual experts to refine measurement instruments.

# 6 Conclusions

This study provides valuable insights into how psychological factors influence economic decision-making under martial law. The findings highlight that heightened stress levels significantly affect managerial decision-making, leading to a higher reliance on conservative strategies, increased caution in investment, and changes in hiring and pricing policies. The high frequency of risky situations in the workplace further exacerbates uncertainty, necessitating adaptive strategies to ensure business continuity. Organizations that actively engage in risk management and strategic adaptation demonstrate greater resilience in crisis conditions. The broader implications of these findings suggest that psychological resilience and structured decision-making frameworks should be integral to business strategies in conflict-affected economies. Policymakers and business leaders should consider implementing support mechanisms, such as targeted psychological interventions and structured financial planning, to enhance managerial effectiveness under stress.

Despite its contributions, this study has several limitations. First, the unpredictability of martial law conditions means that business environments can shift rapidly, potentially altering the effectiveness of decision-making strategies. Future research should consider longitudinal studies to track changes in managerial behaviour over extended periods. Second, access to complete information regarding business operations in conflict zones remains restricted, which may affect the generalizability of findings. Future studies should explore case-based approaches with direct interviews to obtain more detailed contextual insights. Additionally, this study focuses primarily on psychological and behavioural aspects of decisionmaking, without delving into the impact of structural economic variables such as supply chain disruptions and macroeconomic fluctuations. Future research could integrate financial modelling with psychological assessments to provide a more holistic view of economic adaptation strategies under crisis conditions. Finally, emotional responses such as panic, fear, and uncertainty were not explicitly analysed in this study. Future work should examine the role of specific emotional factors in economic decision-making to develop targeted interventions that enhance managerial resilience in high-stress environments.

**Conflict of interests:** The authors declare that there is no conflict of interests. **Data availability:** The data that support the findings of this study are available on request from the corresponding author.

# Appendixes

## **Appendix A**

No.	Questions	Responses
1.	Name (optional):	
2.	Email address:	
3.	Your organisation (name):	
4.	Age category:	– 23–34 years old
		– 35–44 years old
		– 45 years and older
5.	Gender:	– Male
		– Female
6.	Which of the following regions is your place of work	– Kharkiv Oblast
	located in?	– Sumy Oblast
		– Poltava Oblast
		– Dnipropetrovsk Oblast
		– Odesa Oblast
7.	How many years have you worked in your current	– Less than 1 year
	organisation?	– 1–3 years
		– 4–7 years
		– More than 7 years
8.	What is your main role in the organisation?	– Mid-level manager
		– Senior manager
		– Financial analyst
		– HR specialist

#### (continued)

No.	Questions	Responses
		– Project manager
		– Investor
		– Financial advisor
		– Economic analyst
9.	What is your main activity in the organisation?	– Financial management
		– Human resources management
		– Project management
		– Investment analysis
		– Economic analysis
10.	Which of the following tasks do you regularly perform	– Developing business strategies
	as part of your work?	– Making hiring and layoff decisions
		– Evaluating investment opportunities
		– Developing and controlling of financial
		plans
		<ul> <li>Project management</li> </ul>
11.	Rate your stress level over the past three months on a	[Enter a number]
	scale of 1–10, where 1 – very low stress, and 10 – very high stress:	[=
12.	How often do you encounter risky situations in your	– Sometimes
	work (for example, financial risks, economic	– Often
	uncertainties)?	– Constantly
13.	What is the role of your organisation in solving prob-	– We are actively involved in the devel-
	lems related to the economic crisis or martial law?	opment of adaptation strategies
		– We monitor changes and adapt as
		needed
		– Our organisation has limited involve-
		ment in these issues
14.	What is your experience of working under martial law	– No experience
	or economic crisis?	– Less than 6 months
		– 6–12 months
		– More than 12 months
15.	What are the main problems or challenges you have	– Changes in business strategies
	encountered in the context of martial law or crisis? (You	– Supply or logistics issues
	can choose two options)	– Financial difficulties
		– Management challenges
		– Other (specify)
16.	Do you agree to participate in the study?	– Yes
	· , · · · · · · · · · · · · · · · · · ·	- No

Name	Purpose	Experiment description	Indicators for measurement
Impact of risk in- formation on stra- tegic planning	Investigate how risk in- formation affects busi- ness strategies and management decisions under varying levels of uncertainty.	Participants were given two scenarios with different forecasts of events: the first scenario included negative fore- casts (economic crisis, growing military threats, market recession), and the second - neutral or positive forecasts (economic stabil- ity, market recovery, reduction of geopolitical tension). Participants were asked to develop a busi- ness strategy that included market expansion, invest- ment, pricing, and risk management solutions based on the forecasts provided. The task was to assess how different fore- casts affect strategic plan- ning and what approaches participants choose in conditions of high and low uncertainty.	Choice of strategy (con- servative or aggressive), willingness to invest, approach to pricing, level of risk management.
Impact of stress on employee hiring and layoff decisions	Assess how high levels of stress affect employee hiring and layoff de- cisions, particularly the rationality and effective- ness of such decisions.	Participants were divided into two groups: the first group worked under con- ditions of high stress, which were created due to limited time to complete tasks, complexity of tasks, and constant distraction (for example, customer feedback, urgent requests from management). The second group worked un- der standard conditions without additional stressors. Both groups were given the task of	Frequency and validity of hiring and layoff decisions, speed of decision-making, impact of stress on staff stability, and possible con- sequences for the company.

## Appendix B

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#### (continued)

Name	Purpose	Experiment description	Indicators for measurement
Evaluation of in- vestment de-	Investigate how uncer- tainty and risk affect in-	making decisions about hiring or firing employees in response to sudden changes in the economic environment, such as an increase in the cost of raw materials or a reduction in demand for products. Participants were provided with various investment	The choice between risky and risk-free investments,
cisions in the face of uncertainty	vestment decisions and risk propensity.	opportunities, including both risky (investing in un- stable markets or new technologies) and risk-free (investing in government bonds or stable assets). In the experiment, the level of uncertainty about invest- ment results varied, which was created due to the provision of incomplete or contradictory information about the economic situation.	the impact on financial strategies, changes in in- vestment approaches depending on the condi- tions of uncertainty.
Impact of financial stress on pricing decisions	Study how financial stress affects pricing strategies and adaptation to finan- cial conditions.	Participants were divided into two groups based on their level of financial stress: the first group experienced high financial stress caused by fictitious financial losses, such as a significant drop in profits or unexpected additional expenses. The second group was in a state of low financial stress with mini- mal financial problems. Both groups were asked to determine prices for prod- ucts or services in the face of financial uncertainty, and decisions had to be	Selected pricing strategies (aggressive or conserva- tive), changes in pricing policy, speed of response to financial stress, impact of stress on pricing deci- sion-making

(continued)

Name	Purpose	Experiment description Indicators for measurement
		based on the economic situation and forecasts for future market changes.

#### **Appendix C**

Name of the scenario	Description
Negative Economic Scenario (Economic Downturn, Military Threats, Market Recession)	In this scenario, the global economy is facing a severe downturn. Geopolitical tensions have escalated, leading to increased military threats and instability in key mar- kets. Companies are struggling to maintain profitability, and consumer confidence is at an all-time low. Unem- ployment rates have risen, and inflation is steadily climbing. Given these circumstances, you must make key decisions regarding investment strategies, hiring, and risk management for your organization.
Neutral/Positive Economic Scenario (Market Recovery, Reduced Geopolitical Tensions)	In this scenario, the global economy is on a positive trajectory. Geopolitical tensions have subsided, leading to a more stable international environment. The market is recovering from previous downturns, and consumer confidence is beginning to rise. Economic growth is projected to continue at a steady pace, and inflation is under control. As a decision-maker, you need to make strategic choices regarding investments, pricing, and hiring in a climate of moderate uncertainty.

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