



ANTI-CRISIS REGULATION OF ENTERPRISES THROUGH DIGITAL MANAGEMENT

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 20 February 2023</p> <p>Accepted 04 May 2023</p>	<p>Purpose: The digitalization of social processes as one of the main trends in the development of today's society dictates the need for the market to adapt to new business conditions. The quality of corporate governance must constantly improve. This is achieved not only using digital technologies by the company's management to process information but also due to the growing pressure from consumers from the digital generation to be competitive. These consumers want to buy products and services that are tailored to them and receive a high level of personalized service.</p>
<p>Keywords:</p> <p>Crises; Anti-Crisis Management Tools; Management in the Context of Digitalization; Digitalization of Management; Use of Automated Technologies; An it Transformation of Management.</p>	<p>Theoretical framework: Given the requirements of economic, political, and financial stability, imperfections in the market for goods and services, the investment system, and a significant number of company bankruptcies cases, there has been a growing interest in researching the problems of crisis phenomena in the work of enterprises. Equally important has become the use of digital management tools to analyze the factors of their occurrence, and to find effective mechanisms for preventing and eliminating the consequences of the crisis.</p>
	<p>Design/methodology/approach: The article aims to identify the main trends in the modern process of crisis management of companies using digital management tools. Moreover, it is also crucial to determine the specific features of the practical aspects of such management in the current environment.</p> <p>Findings: In the course of the study, bibliographic and analytical methods were used to study the scientific literature on crisis management. The deduction, induction, synthesis, information analysis, system-structural, comparative, logical, and linguistic methods, abstraction, and idealization were employed to study and process data. Moreover, the authors conducted an online questionnaire survey to clarify the most important issues related to management through digital management.</p> <p>Research, Practical & Social implications: Based on the results of the study, the most important theoretical aspects of the issue of crisis management with the help of digital management tools are identified.</p> <p>Originality/value: The value of the research lies in the fact that it explores the views of academics and business leaders on key aspects of this issue.</p>

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REGULAÇÃO ANTICORISE DAS EMPRESAS ATRAVÉS DA GESTÃO DIGITAL

RESUMO

Propósito: A digitalização dos processos sociais como uma das principais tendências no desenvolvimento da sociedade atual dita a necessidade do mercado se adaptar às novas condições de negócios. A qualidade da governança corporativa deve melhorar constantemente. Isso se dá não só com o uso de tecnologias digitais pela gestão da empresa para processar informações, mas também pela crescente pressão dos consumidores da geração digital para serem competitivos. Esses consumidores querem comprar produtos e serviços sob medida para eles e receber um alto nível de atendimento personalizado.

Enquadramento teórico: Dadas as exigências de estabilidade econômica, política e financeira, as imperfeições do mercado de bens e serviços, o sistema de investimento e um número significativo de casos de falências de empresas, tem havido um interesse crescente na investigação dos problemas dos fenômenos de crise no trabalho das empresas. Igualmente importante tornou-se o uso de ferramentas digitais de gestão para analisar os fatores de sua ocorrência e encontrar mecanismos eficazes para prevenir e eliminar as consequências da crise.

Desenho/metodologia/abordagem: O artigo tem como objetivo identificar as principais tendências no moderno processo de gestão de crises das empresas utilizando ferramentas digitais de gestão. Além disso, também é crucial determinar as características específicas dos aspectos práticos dessa gestão no ambiente atual.

Resultados: No decurso do estudo, foram utilizados métodos bibliográficos e analíticos para estudar a literatura científica sobre gestão de crises. Os métodos de dedução, indução, síntese, análise da informação, sistema-estrutural, comparativo, lógico, linguístico, abstração e idealização foram empregados para estudar e processar os dados. Além disso, os autores realizaram uma pesquisa por questionário online para esclarecer as questões mais importantes relacionadas à gestão por meio da gestão digital.

Pesquisa, implicações práticas e sociais: Com base nos resultados do estudo, são identificados os aspectos teóricos mais importantes da questão do gerenciamento de crises com a ajuda de ferramentas de gerenciamento digital.

Originalidade/valor: O valor da pesquisa reside no fato de explorar as opiniões de acadêmicos e líderes empresariais sobre os principais aspectos dessa questão.

Palavras-chave: Crises, Ferramentas de Gestão Anticrise, Gestão no Contexto da Digitalização, Digitalização da Gestão, Utilização de Tecnologias Automatizadas, Uma Transformação da Gestão.

REGULACIÓN ANTICRISIS DE LAS EMPRESAS A TRAVÉS DE LA GESTIÓN DIGITAL

RESUMEN

Propósito: La digitalización de los procesos sociales como una de las principales tendencias en el desarrollo de la sociedad actual dicta la necesidad del mercado de adaptarse a las nuevas condiciones empresariales. La calidad del gobierno corporativo debe mejorar constantemente. Esto se logra no solo mediante el uso de tecnologías digitales por parte de la dirección de la empresa para procesar la información, sino también por la creciente presión de los consumidores de la generación digital por ser competitivos. Estos consumidores quieren comprar productos y servicios que se adapten a ellos y recibir un alto nivel de servicio personalizado.

Marco teórico: Dadas las exigencias de estabilidad económica, política y financiera, las imperfecciones en el mercado de bienes y servicios, el sistema de inversión y un número importante de casos de quiebras de empresas, ha habido un interés creciente por investigar la problemática de los fenómenos de crisis en el trabajo de las empresas. Igualmente importante se ha vuelto el uso de herramientas de gestión digital para analizar los factores de su ocurrencia y encontrar mecanismos efectivos para prevenir y eliminar las consecuencias de la crisis.

Diseño/metodología/enfoque: El artículo tiene como objetivo identificar las principales tendencias en el proceso moderno de gestión de crisis de las empresas que utilizan herramientas de gestión digital. Además, también es crucial determinar las particularidades de los aspectos prácticos de dicha gestión en el entorno actual.

Hallazgos: En el curso del estudio, se utilizaron métodos bibliográficos y analíticos para estudiar la literatura científica sobre gestión de crisis. Se emplearon métodos de deducción, inducción, síntesis, análisis de información, estructural del sistema, comparativo, lógico y lingüístico, abstracción e idealización para estudiar y procesar datos. Además, los autores realizaron una encuesta de cuestionario en línea para aclarar las cuestiones más importantes relacionadas con la gestión a través de la gestión digital.

Implicaciones de investigación, prácticas y sociales: con base en los resultados del estudio, se identifican los aspectos teóricos más importantes del tema de la gestión de crisis con la ayuda de herramientas de gestión digital.

Originalidad/valor: El valor de la investigación radica en el hecho de que explora los puntos de vista de académicos y líderes empresariales sobre aspectos clave de este tema.

Palabras clave: Crisis, Herramientas de Gestión Anticrisis, Gestión en el Contexto de la Digitalización, Digitalización de la Gestión, Uso de Tecnologías Automatizadas, Una Transformación de la Gestión.

INTRODUCTION

In the context of the formation and development of market relations, companies' activities are often accompanied by crises that lead to a decrease in financial potential, solvency, and even bankruptcy of organizations. Against this background, the issue of developing and using various anti-crisis measures that can mitigate, prevent or eliminate crisis phenomena in enterprises is becoming increasingly important. In these conditions, an important issue is the availability of special knowledge and skills of managers related to the use of anti-crisis tools.

Today, companies in any country, big or small, find it difficult to conduct successful operations without following global information and communication development trends (Almashhadani, 2023).

The transition of companies' activities to the digital space and the introduction of digital innovations into HR management practices are particularly relevant in the current context of globalization, digitalization, and intensified digital competition. Digital innovations must ensure the effective work of employees with high labor productivity. In today's environment, the company pays special attention to information technology to improve the success of its operations. Moreover, the availability of a more advanced electronic data exchange system is becoming the basis of its competitiveness.

The theoretical part of this study substantiates the concept, components, and main factors of the development of crisis management of companies with the help of digital management tools.

The practical part of the study consists of several stages. The first stage involves identifying the most important prerequisites for effective crisis management through digitalization. The second stage is to identify the priority special types of management anti-crisis activities implemented in the context of digitalization. The third stage involves systematizing data on the more efficient use of employees' time in the context of crisis management using the most common means of digital data systematization. The fourth stage identifies the latest trends in the system of anti-crisis personnel management in the context of digitalization. The fifth stage of the study focuses on the main trends in the labor market that have occurred in connection with the digitalization of society and which can be used in the

crisis management of enterprises. All these stages are interrelated and necessary for creating an effective strategy for crisis management of an enterprise in the digital economy.

Based on the results of the study, conclusions are drawn regarding the issues raised. It is found that the most important prerequisites for effective anti-crisis management through digitalization are the identification of restrictions on the implementation of planned activities and the adjustment of the directions of further innovative development of the company. Meanwhile, the most important types of anti-crisis management activities implemented in the context of digitalization are management using automated technologies for processing, analyzing, and forecasting large amounts of data, targeting a specific consumer through the digital space, as well as high adaptation to technological and market changes. The survey revealed that today the most common means of systematizing data on the more efficient use of employees' time in the context of anti-crisis regulation are CRM approaches and special software. The study has shown that the most effective and popular activities in the management process in the context of anti-crisis HR management are the use of modern digital technologies, such as virtual reality, processing and sorting information using modern programs, and developing individual educational paths for the development of staff competencies. According to the survey results, the respondents named the following trends in the labor market that have occurred due to the digitalization of society and can be used in crisis management. First, it is the expansion of labor supply through the participation of various socio-demographic groups in the labor force. Secondly, it is the rapid updating of demanded professions and skills, and the erasure of national labor market borders. Survey participants noted that the ability to position a company in the digital space strategically is key to implementing IT management transformation in business. This allows for the application of the latest methods of attracting and servicing customers, as well as improves the use of labor resources, including the use of cognitive computing, robotics, and artificial intelligence. However, for the successful implementation of the IT transformation of management, it is necessary to carry out methodical refinement in these aspects to ensure their effective use in the anti-crisis regulation of companies' activities.

LITERATURE REVIEW

Depending on the specific conditions of its development, modern management has general and specific characteristics. The key factors in the development of enterprises today include the socio-economic formation, the model of the economic system, the level of

development of scientific and technological progress, and the implementation of its results in real business practice. In this sense, digitalization can be seen as one of the fundamental processes that objectively affects the strategies of all business entities and requires a full and comprehensive study. One of the important tasks of the digital economy and management is the need to create new jobs, including those in compliance with the principles of social responsibility of business to society and the population. On the other hand, however, managers should strive to introduce advanced innovative technologies that save important resources, including human resources (Corvello et al., 2022), (Maslak et al., 2020).

Scientists define the concept of digital management as the realization and expression of the creativity of education and the individual. This involves creating an information structure of the organization and society where all parts of "digitalization" provide the necessary level of all information components on a new innovative digital basis. Digital governance is considered the basis of an innovative society, based on which innovations and digitalization are cultivated (Ahn, Mortara & Minshall, 2018), (Elia et al., 2021).

Digitalization affects various spheres of society. Therefore, governance should be developed on an innovative basis and contribute to the formation of human capital capable of creating new computer technologies and artificial intelligence (Ammirato et al., 2019), (Conz & Magnani, 2020).

The introduction of electronic technologies leads to the need to transform the company's organizational structure. This includes decentralization of the management structure to utilize the benefits of digitalization and accelerate management decision-making, which increases the efficiency of the management apparatus (Asamoah, Agyei-Owusu & Ashun, 2020).

One of the main reasons for the inefficient functioning of enterprises in the world is the slow pace of their scientific and technological progress and the difficulty of implementing a market-based management mechanism, a multi-level organizational structure based on centralized hierarchy and unchanging management methods (Kan, Lyu, Huang & Yao, 2022).

In practice, due to the automation of most management processes, namely the coordination of the most important business processes in real-time, most managers may become unnecessary in the future. However, with the introduction of robotics in enterprises, production capacity will increase and the main resources of the enterprise will be saved. Furthermore, most employees will be able to retrain and become more professionally mobile and flexible (Cappiello, 2020).

Digitalization in the enterprise contributes to efficient solutions for such tasks as communication with customers, effective advertising and active marketing, automation of internal business processes, and simplification of interaction with government agencies. However, it should be noted that the introduction of digital technologies can significantly increase the risk of information leakage, especially in the area of personal data storage and handling of confidential information (Büyüközkan & Göçer, 2018), (Zhang, Pan, Feng & Qin, 2022)

To achieve the highest possible business efficiency, the approach to digitalization should be comprehensive. In this case, we are talking about the digital transformation of not only business processes in the company's production sector but also the management sphere (Timchuk & Evloeva, 2020).

AIMS

The research aims to determine the position of scientists and managers of enterprises on the peculiarities of using digital technologies in the crisis management of enterprises.

MATERIALS AND METHODS

A practical study of current trends in the use of digital management tools in the field of crisis management of companies was conducted by interviewing 284 scientists who study modern crisis management tools. We also interviewed 251 managers of enterprises in the Ivano-Frankivsk, Mykolaiv, Cherkasy, Odesa, and Kyiv oblasts of Ukraine. The survey was conducted using the SurveyNuts service.

RESULTS

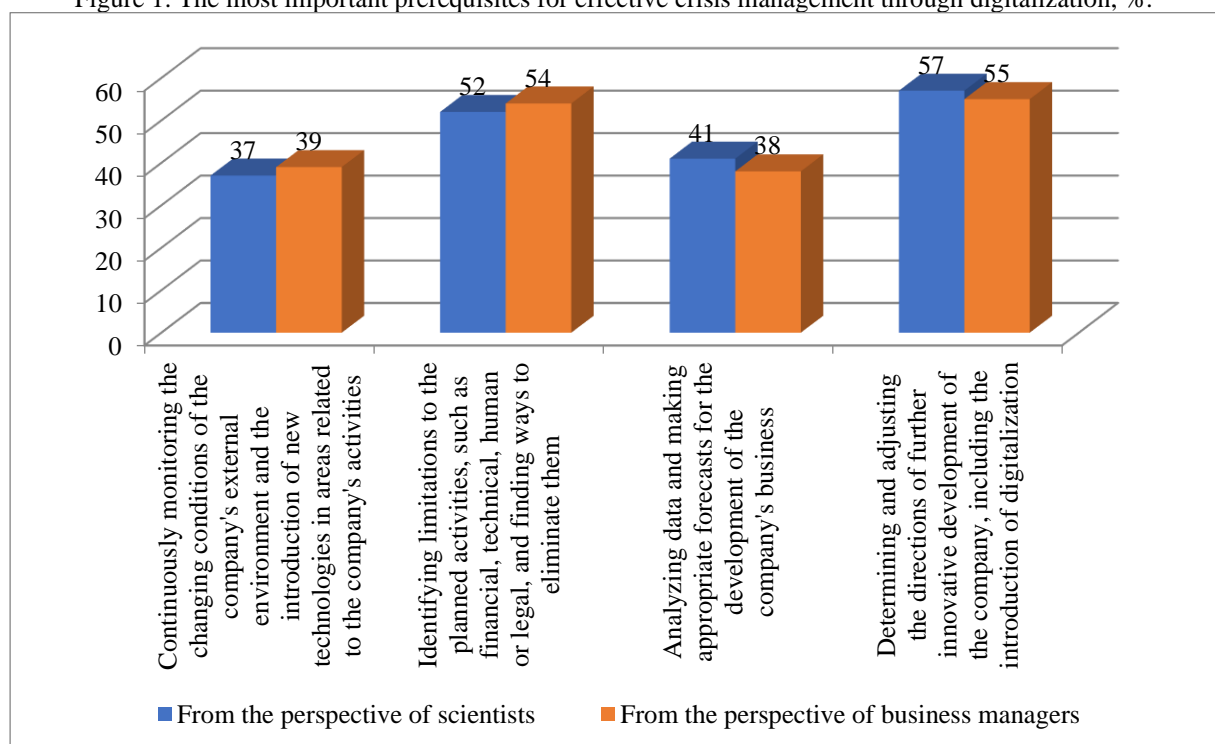
According to the survey participants, in the context of the rapid digitalization of economic and management processes, the most important prerequisites for effective crisis management through digitalization are as follows (Figure 1):

- identifying constraints to the planned activities, such as financial, technical, human, or legal, and finding ways to eliminate them;
- identifying and adjusting the directions of further innovative development of the company, including the introduction of digitalization.

In the course of the survey, the respondents identified the following most important special types of management anti-crisis activities implemented in the context of digitalization (Figure 2).

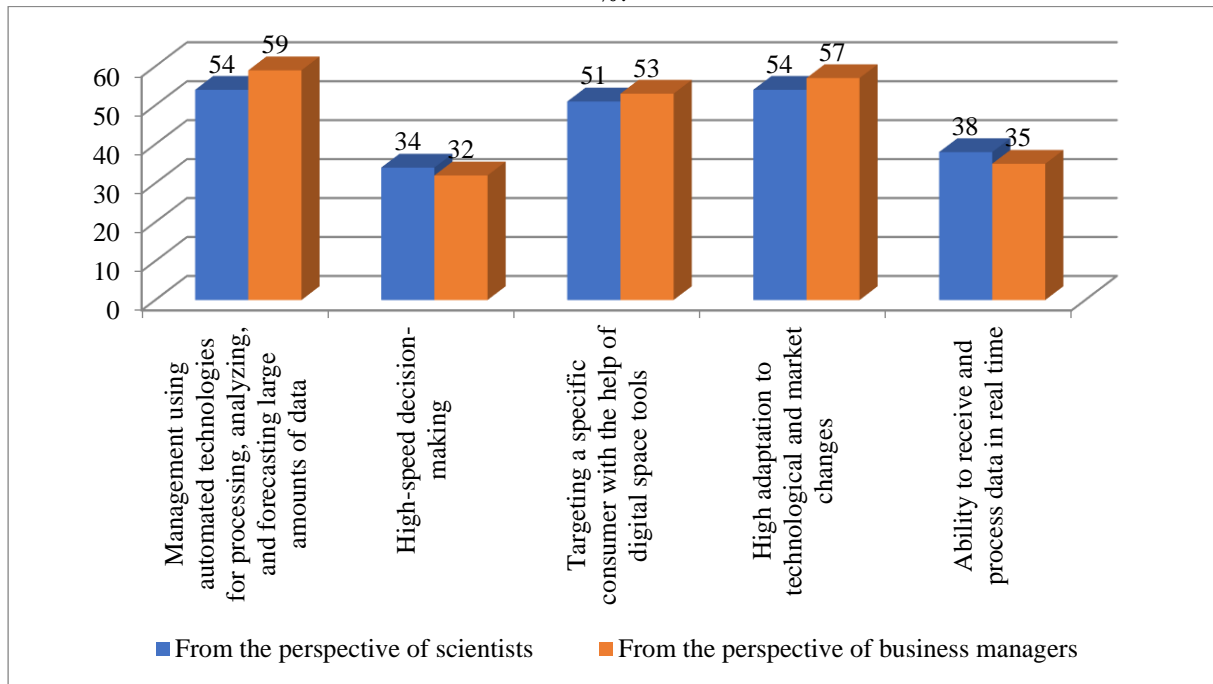
According to the survey, management in companies retains its classic functions. However, in the context of digitalization, they are realized through such special types of management activities as management using automated technologies for processing, analyzing, and forecasting large amounts of data, customer focus, and high adaptation to technological changes.

Figure 1. The most important prerequisites for effective crisis management through digitalization, %.



Source: built by the authors.

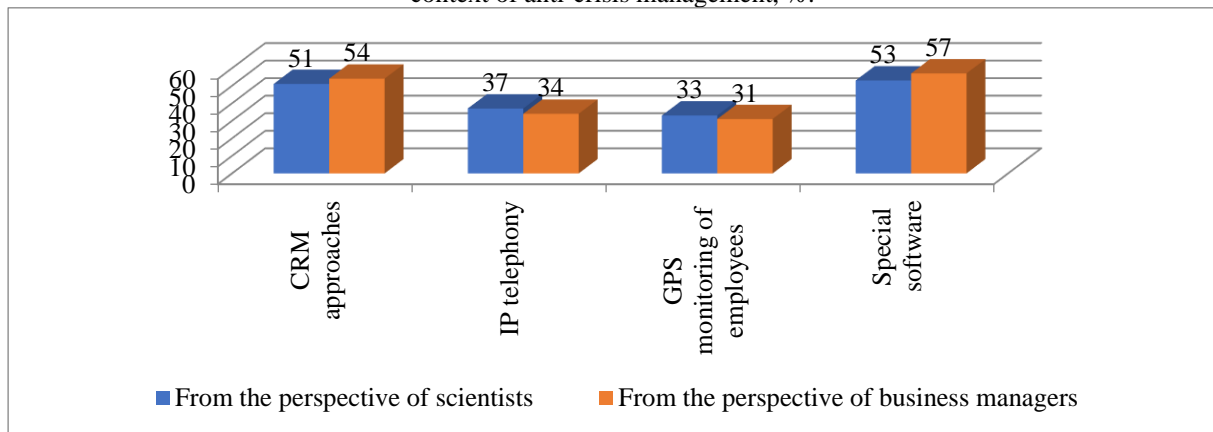
Figure 2. Priority special types of management anti-crisis activities implemented in the context of digitalization, %.



Source: built by the authors.

Today, in the context of changing requirements for the recruitment and management of personnel, the survey participants identified the most popular and increasingly used methods. They also pointed out the means of systematizing data for more efficient use of employees' time (Figure 3).

Figure 3. The most common means of systematizing data on the more efficient use of employees' time in the context of anti-crisis management, %.



Source: built by the authors.

As can be seen from Figure 3, according to the survey participants, these tools are currently CRM approaches and special software.

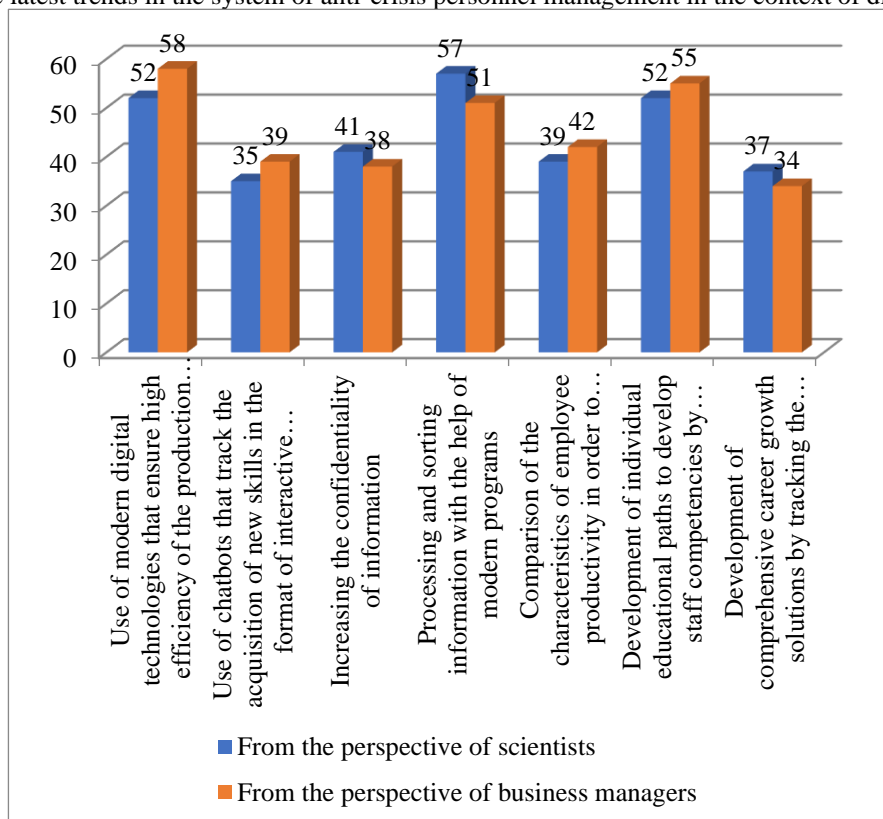
In the course of the study, respondents were asked to name the latest trends in the system of anti-crisis HR management in the context of digitalization, which involves filling managerial functions with new content and transforming them (Figure 4).

As the analysis of the survey results has shown, the most effective and popular activities in the management process in the context of crisis management of personnel are the use of modern digital technologies. Among these technologies are virtual reality, the processing, and sorting of information with the help of modern programs, and the development of individual educational paths for the development of staff competencies.

The survey made it possible to identify the following trends in the labor market that have occurred due to the digitalization of society and that can be used in crisis management (Figure 5).

As can be seen from Figure 5, the respondents named trends related to the digitalization of the social sphere. These trends can be considered and used in anti-crisis management measures. These tendencies include the expansion of labor supply through the participation of various socio-demographic groups in the company's work, the rapid updating of demanded professions and skills, and the erasure of national labor market borders.

Figure 4. The latest trends in the system of anti-crisis personnel management in the context of digitalization, %.

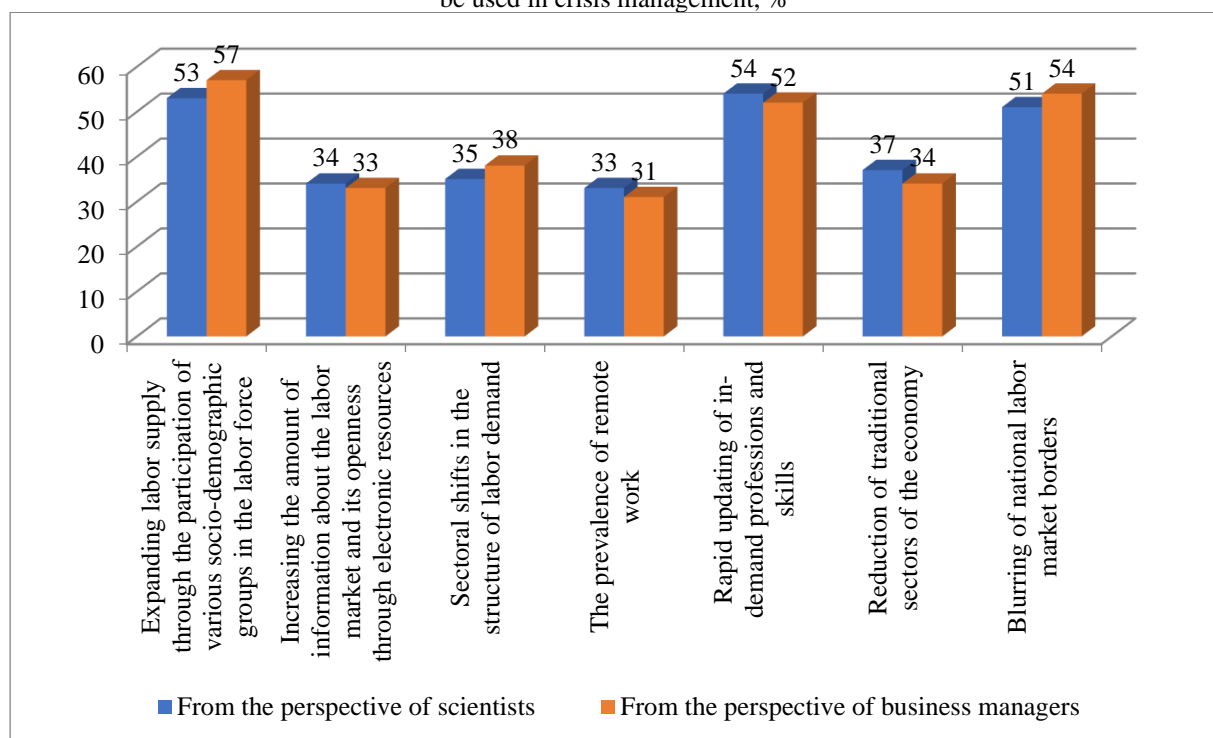


Source: built by the authors.

The following aspects of the IT transformation of business management can be traced. They require active methodological refinement to be put into practice by companies in the process of anti-crisis regulation of their activities (Figure 6).

According to the survey results, the most important aspect requiring active methodological improvement is the strategic positioning of a company in the digital space. This allows for the use of the latest ways to attract and serve customers and increase the efficiency of labor resources. Specific measures include the use of cognitive computing, robotics, and artificial intelligence.

Figure 5. Trends in the labor market that have occurred in connection with the digitalization of society and can be used in crisis management, %



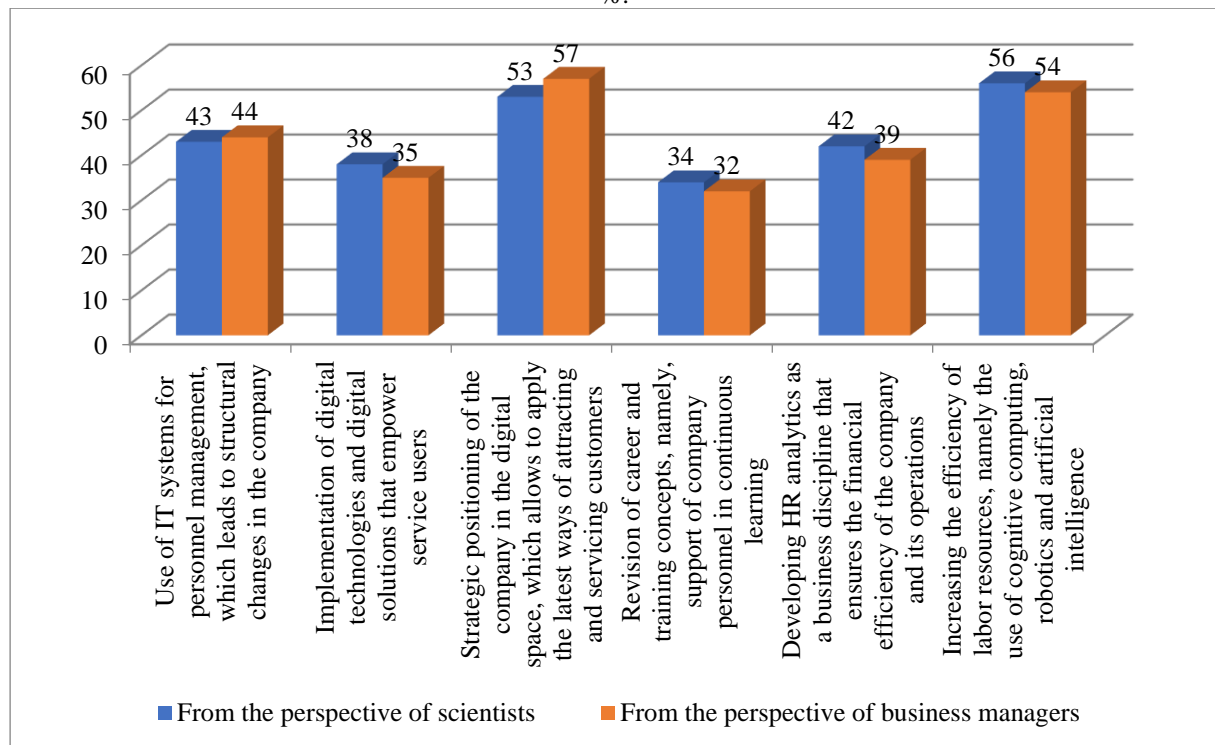
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DISCUSSION

An effective anti-crisis policy involves the introduction of modern technologies into an organization's business processes. This approach involves not only the installation of modern hardware or software, but also fundamental changes in the approach to management, corporate culture, and external communications. The integration of digital management tools increases the productivity of each employee and customer satisfaction. In general, the digital transformation of business processes is ultimately aimed at the efficiency of management decision-making and, as a result, the growth of the profits (Audretsch & Belitski, 2021).

Based on practical experience in using the latest marketing communication tools, both approaches and internet marketing instruments have significantly changed in recent years. As a result, new communication platforms have been created, and new approaches have emerged in using online platforms as tools for promoting products and services (Berestetska et al, 2023).

Figure 6. Aspects of IT transformation of management that require active methodological refinement for implementation in the practical activities of companies in the process of anti-crisis regulation of their activities, %.



Source: built by the authors.

Crisis management has recently become one of the most important areas of activity, and research into crises and ways to overcome them has become extremely active. In Western literature, this term refers to a certain type of activity related to resolving a situation that threatens the functioning of an organization or enterprise. Economists characterize this activity as the intensified use of measures and methods necessary to deal with a crisis. In every company and organization, crisis management should begin with building a system that includes qualitative and quantitative analysis of various negative indicators. This will indicate the approach of a possible crisis, which is the primary task of crisis management (Qian, Liu & Pan, 2022), (Genari et al., 2018).

The basis of crisis management is the development and practical implementation of measures to overcome a crisis by an enterprise. Finding and selecting these activities is a rather

complicated process, as they require significant time and resources (Branicki, Sullivan-Taylor & Livschitz, 2018).

The main tasks of managers in the context of digitalization are identified. The first is the timely adoption of optimal management decisions. Next, it is important to search for, select highly qualified IT specialists, and improve the skills of employees. An equally important task is to use new tools to motivate employees, automate business processes and develop IT infrastructure (Goldfarb & Tucker, 2019), (Ercan & Samet, 2018).

At the same time, scientists note that in the management-digitalization pair, management comes first. First, it is necessary to improve management, enhance the quality of human potential, and then implement the latest digital management standards. Otherwise, the company faces a lag in management due to the wrong type of organizational structure or imperfect motivation systems, etc. (Autio, Mudambi & Yoo, 2021), (Pradhan et al., 2019).

CONCLUSION

Thus, the analysis of the scientific literature on the research topic and the results of the questionnaire survey showed that in the context of the digitalization of the economy, significant changes are taking place in all areas of employees' lives. New technologies and systems require significant changes in production processes, and the way materials, finance, information, and human resources are used to ensure the competitiveness of companies. In this regard, companies need to define their organizational identity, develop a long-term vision, and develop strategies and business management models that meet these needs. Digitalization in a company includes not only the installation of software but also trends in management. To ensure efficiency in the company's crisis management in the context of digitalization, managers must constantly modernize their working methods and quickly adapt employees to new changes. It is equally important to introduce new management methods, programs, and tools that allow for efficient use of time and labor resources.

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