Research on Risk Management in the New Era

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Abstract. With the rapid development of science and technology, the 'new axis era' will become an important driving force for the future development of mankind. It not only promotes the progress of basic theory, but also changes the way of risk, cognition and management, so that people can better cope with future challenges. In the new era, factors such as technological development, market economic risks and diversified investment are likely to pose risks to enterprises, which can be mitigated or avoided by implementing reasonable risk management measures. Therefore, this paper will review the risk management in the new era, focusing on the technology, policy and process of its implementation, in order to strengthen the risk management ability of enterprises. This paper analyzes several key technologies of risk management in the new era, especially risk identification, risk analysis, risk control and risk supervision technology, and analyzes their importance and role in risk management in the new era. In addition, the article also discusses several major policies of risk management in the new era, such as policy orientation, policy measures, preventive measures and social responsibility, as well as the importance and role in risk management in the new era. Finally, the article discusses the management methods of risk management in the new era, such as internal and external two-way, chain management and agile management. All in all, risk management in the new era is of great significance in implementing technology, policies and processes, and can provide effective risk management for enterprises.

Keywords: new era · risk management · policy · management method

1 Research Course of Risk Management

In the first half of the 20th century, the concept of risk control in the modern sense, such as Fayol's concept of safety and Marshall's concept of "risk sharing control," has been formed. However, with the publication of Gallagher's article "Risk Management: New Developments in Control" in the middle of the 20th century; johnso pointed out how to deal with the problems of danger and uncertainty, so that risk control as a discipline has been systematically developed [1], thus promoting the development of modern society, enterprise risk control has been widely concerned.

With the birth of Mehr and Hedges' "Enterprise Risk Management" and C.A. Williams and ri chardm. Heins' "Risk Management and Insurance," the field of enterprise management has really flourished and formed an important field. Williams and

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Heins pointed out that management is an effective and controllable method, which aims to achieve maximum loss reduction at the minimum cost by identifying, assessing and controlling risks [2]. In 1992, Yates and Stone provided a new three-factor model to further study the significance of business. They found that management is formed by three elements: (1) possible economic losses; (2) the extent of possible loss; (3) Possible uncertainties. The three-factor model of business risk given by Yates and Stone profoundly reveals the essence of business risk and provides a complete framework for modern risk theory research.

With the advent of the 21st century, Wang Zhong and Huang Ruihua pointed out that risk management is not only a technology, a method and a management process, but also a new type of governance science and technology [3]. With the rapid development of science and technology and its application in all aspects of economy and society, the probability of various hazard factors and hazards is greatly increased, and the scope of economic losses caused by hazard risk accidents is also expanding, which requires us to have higher regulatory requirements for hazard risk responsibility.

2 Definition of New Era Risk Management

New Era Risk Management (NERM) is a systematic, comprehensive and comprehensive management approach that aims to protect the financial, economic and other interests of the organization and help the organization achieve its goals by preventing, controlling and reducing the risks that the organization may face at all levels. It is a comprehensive risk management process based on modern technologies such as artificial intelligence and big data to identify, analyze, control and monitor various risks. It combines traditional risk management with modern technology to build a risk management system in the new era to ensure the normal operation and goal realization of enterprises.

In China, the exploration of risk management started late, and for different enterprises, they deal with different risks. In the past, traditional enterprise risk management only associated risk with loss, and did not associate risk with profit. However, the significance of modern risk not only attaches importance to the prevention and reduction of risks, but also attaches importance to the greater value opportunities brought by management after the occurrence of risks. Therefore, risk management in the new era faces not only the past, but also the future.

3 Characteristics of Risk Management in the New Era

3.1 Adopt Advanced Technology

Risk management is a cognitive science, which has undergone tremendous changes in the new era, thus improving the traditional risk management methods. Therefore, it will redefine risk management along the 'information' and 'number' aspects. Risk management in the new era is to improve the accuracy and efficiency of risk identification and analysis by using advanced technologies such as big data, artificial intelligence, cloud computing, blockchain technology and machine learning, so as to help enterprises identify and analyze risks more accurately and quickly and make more accurate decisions [4].

With the introduction of 'data possibilities', the advancement of sensing technology has become the key to natural disaster risk management. From remote sensing, weather radar, Internet of Things to 5G technology, data collection and transmission will become more convenient, real, comprehensive, and free, which will bring a new normal. With the digital transformation of 'post-digital', 'born', 'digital life' and 'digital society' will become two important digital media to provide users with a more convenient experience [5].

3.2 Pre-emptive Risk Management

Risk management in the new era adopts a pre-emptive risk management approach, that is, taking preventive measures to prevent risks before they occur. It can predict potential risks in advance by using advanced technology and data analysis, so as to take preventive measures in advance and reduce the impact of risks From the perspective of conventional financial management, 'static' and 'historical' materials can provide an effective reference for the company's actuarial methods, but the safety of static development materials is still a key factor. It can help enterprises better analyze operations, expose the basic laws of operations, and predict the future development of operations [6]. Over time, the social environment and factors have changed dramatically, so the collection and processing of instantaneous and mobile materials is the key, and the ability to obtain the corresponding materials is the basis for achieving these goals. For the future, enterprises should adopt a preemptive strategy, combining movement and stillness to form a mutual relationship, judging the future development with changes in social and historical development, and using changes to promote future development. The 'life table' insurance case is a good example. Although past figures are critical, real-time data, such as age, disease and medical care, are more important.

4 Four Major Processes of Risk Management in the New Era

4.1 Risk Identification

Identifying and understanding potential risks is the first step in risk management, which can help companies achieve their goals better. Risk management in the new era identifies potential risks accurately and quickly through a large amount of data collection and the use of advanced technologies such as big data and artificial intelligence. The large amount of data of 'algorithmic solution' provides a basis for people to understand the risk mechanism and law more deeply.

4.2 Risk Analysis

Risk analysis is the process of assessing potential risks and their impact on corporate goals. Risk management in the new era uses advanced technologies such as machine learning and data mining to analyze the characteristics of risks, assess their impact on corporate goals, and develop appropriate risk management strategies. With the development of advanced technologies such as machine learning and data mining, risk is no longer a simple system, but a complex system, which can better understand and predict risk behavior by analyzing and reconstructing risk models. The emergence of these technologies enables people to more accurately identify and control risks, thereby effectively improving risk management.

4.3 Risk Control

Risk control is the process of implementing appropriate risk management strategies to reduce or eliminate the impact of risks. Risk management in the new era can use various risk control strategies, such as risk prevention, risk transfer and risk sharing, to reduce or eliminate the impact of risks.

4.4 Risk Regulation

Risk supervision is the process of monitoring the implementation of risk management strategies to ensure the realization of risk management objectives. In the new era, risk management can use advanced technologies such as blockchain technology to monitor the implementation of risk management strategies and detect potential risks in a timely manner.

5 Four Major Policies of Risk Management in the New Era

5.1 Policy Orientation

In the new era, risk management should adhere to the principle of policy orientation, take risk management as the goal, establish corresponding risk management policies, and strive to achieve risk management goals. Risk management in the new era should also adhere to the principle of data-driven, use data generated by advanced technology to formulate appropriate risk management policies, and ensure the effectiveness and accuracy of risk management. 1. Promoting the innovation of risk governance mechanism. The government should strengthen cooperation with enterprises, financial institutions and industry associations to promote the establishment and development of joint risk management models and improve the synergy of risk management. 2. Cultivate risk management talents. The government should pay attention to the cultivation of risk management talents, promote universities and vocational education institutions to set up relevant majors, encourage enterprises to strengthen internal personnel training and training, and improve the ability of risk management in the whole society. 3. Improve risk information disclosure. The government needs to strengthen the information disclosure of risk events, promote the establishment of a sound information disclosure and public participation mechanism, enhance the public's ability to know and supervise risk events, and improve the supervision and effectiveness of social risk management.

5.2 Policies and Measures

Risk management in the new era should implement appropriate policy measures to ensure the effective implementation of risk management. For example, a reward and punishment system can be established, specific responsibilities and obligations for risk management can be proposed, and corresponding risk management procedures can be developed [7]. At the same time, the establishment of talent education and training is also a key measure. Talents are the driving force for enterprises to improve their overall strength and long-term sustainable development, and are indispensable for the development of various enterprises. Specific policy measures are: 1. Develop risk management system. The government should formulate relevant laws, regulations and policies, clarify the responsibilities and rights of risk management, and establish a sound risk management mechanism. 2. Risk assessment and monitoring. Establish and improve the risk assessment and monitoring system, comprehensive and scientific assessment and monitoring of various risks, timely detection and early warning of risks. 3. Improve regulatory measures. Strengthen the supervision of the regulatory authorities, strengthen the supervision and enforcement of risk management, and take effective measures to prevent and resolve risks.

5.3 Preventive Measures

Risk management and control in the new era should take preventive measures to reduce or eliminate the impact of risks. For example, preventive measures such as risk assessment, risk control and risk monitoring can be taken to reduce or eliminate the impact of risks. The specific preventive measures are as follows: 1. Establish a risk identification mechanism: establish a scientific risk assessment model, identify potential risk factors, track and monitor in time, and formulate effective response strategies. 2. Improve risk management and control capabilities: Improve risk management and control capabilities through various means, including developing risk management systems, establishing risk management organizations, and strengthening risk training and education. 3. Strengthen information construction: make full use of modern information technology, establish a sound information management platform to achieve real-time change and rapid response to risk information. 4. Strengthen operational risk management: formulate a comprehensive operational risk management strategy, improve the quality of product design and operation, and ensure that the risk level of products meets regulatory requirements.

5.4 Social Responsibility

Social responsibility is a new function of risk management in the new era. Xinshida risk management should consider corporate social responsibility, take measures to balance the interests of all stakeholders, reduce potential social risks, and ensure the sustainable development of enterprises. Research shows that in Shao Mingyu's LOGIT-LIBSVM model, corporate social responsibility is a key factor in preventing and mitigating risks, including shareholders, governments, employees and consumers. These factors have the greatest impact on corporate risk, accounting for 68% [6]. The specific responsibilities are: 1. Protecting consumers: Enterprises should ensure the quality and safety of products and services, provide consumers with reliable, safe and high-quality products and services, and prevent risks from causing losses and injuries to consumers. 2. Ensure the safety and health of employees: Enterprises should provide a safe and healthy working environment to prevent work-related accidents and occupational diseases. 3. Reducing environmental impacts: Enterprises need to consider the environmental impacts of products and services, take effective measures to reduce emissions and pollution, and protect natural resources and the environment. 4. Supporting social welfare undertakings: Enterprises can support social welfare undertakings through charitable donations, voluntary services, green environmental protection, etc., give back to the society, and improve their social responsibility and brand image.

6 Management Methods of Risk Management in the New Era

6.1 Internal and External Combination Management

The traditional research method relies on the 'inside-out' way of thinking, that is, by studying the internal principle and power system of the 'cause of disaster', the risk and loss growth mode is established to better predict and control the risk. However, this approach has internal two-way defects and cannot effectively achieve effective management of risks. With the progress of modern science and technology, 'outside-in' can more accurately capture the small changes of things, such as the management of natural disasters. By installing surface sensing equipment or using satellite remote sensing, people can observe 'micro-emotion' in real time, so as to obtain more accurate, dynamic and accurate information, so as to make judgments and predictions faster. In order to cope with future challenges, we must establish a 'two-way thinking' approach and construct a new risk management framework through 'internal and external integration' and 'resource advantages complement each other'.

6.2 Chain Management Mode

The emergence of the 'truth age' provides people with a more intuitive and perceptual way to understand the 'causal chain' and apply it to the field of risk management. The disaster chain provides a new perspective, method and path, which can effectively help people identify, accept and manage risks, so as to improve the efficiency of risk management. 'Economic chaining' is an important trend, which involves economic ecological chain, industrial chain and supply chain. 'Chaining' is based on the theory of global industrial division of labor. However, due to the emergence of 'one prosperity, one loss', the characteristics of risk contagion have transcended the traditional geographical limitations and brought unprecedented challenges to risk management. The 'Great East Japan Earthquake' has brought a profound impact on China's automobile industry, but 'chain management' will become an important guiding ideology and effective method for future risk management, which can not only help us better prevent risks, but also effectively reduce losses.

6.3 Agile Management Mode

With the increasingly close connection between society and economy, the characteristics of 'risk chain' are becoming more and more obvious. Therefore, the sensitivity and infectivity of risk become the key difficulty of risk management. Speed has become a key factor and ability, including the speed of risk discovery and response, strategy and disposal, implementation, evaluation and feedback. The use of simple plan management and traditional rapid response can no longer meet the needs of future risk management, because human beings have been difficult to adapt to the changes and management needs of the risk world. In order to cope with future challenges, we need to build a technology-based intelligent solution. This requires 'agile' management capabilities, including keen risk perception and automatic processing capabilities, especially risk handling, feedback and adjustment capabilities based on smart contracts.

7 Conclusion

In short, risk management in the new era is very important in the implementation of technology, policies and methods. It can provide effective risk management for enterprises. By using advanced technologies such as big data and artificial intelligence, risks can be identified, analyzed, controlled and monitored more accurately and quickly. At the same time, risk management in the new era can also take preventive measures to reduce or eliminate the impact of risks, and develop effective organizational control systems to ensure the effective implementation of risk management. In addition, risk management in the new era should also consider the social responsibility of enterprises and establish an effective emergency management system to ensure an effective response to sudden risks. Finally, the effectiveness of risk management can be enhanced through internal and external integration, chain management and agile management. In a word, risk management in the new era can provide effective risk management for enterprises and promote the stable and orderly development of enterprises.

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