International Business & Economics Studies
ISSN 2640-9852 (Print) ISSN 2640-9860 (Online)
Vol. 7, No. 3, 2025
www.scholink.org/ojs/index.php/ibes

Original Paper

Research on the Application of Hedging Thinking in Enterprise Decision-making Risks

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Received: April 23, 2025 Accepted: June 02, 2025 Online Published: June 30, 2025

doi:10.22158/ibes.v7n3p126 URL: http://dx.doi.org/10.22158/ibes.v7n3p126

Abstract

In today's ever-changing business environment, market uncertainty has become the greatest challenge business decision-makers face. Traditional prediction models are experiencing an unprecedented crisis of failure, and the limitations of empiricism have been fully exposed in the ever-changing market changes. This dramatic change not only subverts the existing business perception but also fundamentally alters the underlying logic of enterprise strategy formulation. Facing such an unpredictable market environment, business leaders urgently need to establish a brand-new risk management thinking system. As a forward-looking risk control mechanism, the core value of hedging strategy lies in constructing a multi-dimensional defense system. This strategy achieves a dynamic balance of risk exposure by establishing mutually restrictive business portfolios, thereby creating a relatively stable development space for the enterprise in the face of uncertainties. Modern hedging strategies have evolved from simple financial instruments to an important component of corporate strategic management. It requires managers to have acute market insight and rapid response ability, be able to identify risk hedging points in complex environments, and establish corresponding business buffer mechanisms. The cultivation of this ability has become a key indicator of contemporary enterprise leadership.

Keywords

Hedging thinking, Management decisions, Risks and crises

1. Introduction

Instability is the first feature of the current market, which is full of all kinds of rapid changes. For example, the huge fluctuations in stock prices, traffic accidents caused by various accidents, social chaos resulting from terrorist attacks, etc. These events have all changed the original balanced state in a short period. They cause instability because it is difficult for these events to correct themselves after

they occur. They will have a greater deviation effect, causing the people involved to move further away from the original stable life.

Uncertainty is the second feature of the current market, depicting the current world as unpredictable, and outdated past experiences have become ineffective. Due to the increasing number of unstable factors, the empirical models used to predict how the future will develop have gradually lost their effectiveness. Every new thing is, to a certain extent, a new challenge. The linear connections of the world have become less precise, exploring the causes of affairs has become difficult and less important, and what originally seemed favorable may turn out to be a trap in the end, while what was once a challenging environment may present unexpected opportunities.

Complexity is the third feature of the current market; depicting the present world is more elusive than ever. The development of modern technology has enabled the unobstructed flow of people, goods and information on a global scale. People are intertwined in a large system, and their interrelationships far exceed those in the past, forming a nonlinear network. Certainty exists in linear connections, but in nonlinear complex giant systems, the same external conditions and inputs may lead to very different outputs or responses of the system.

Ambiguity is the fourth feature of the current market; that is, the depiction of the present world is not black and white, and there are no clear boundaries between right and wrong, advantages and disadvantages, and disadvantages. There is often more than one possible solution to a problem, all of which can achieve the goal. However, each has its advantages and disadvantages. There is no reference standard for which solution to choose when putting it into practice. For modern organizational management, this is more difficult than ever before because this ambiguity brings tests to the subjective value system of individuals or organizations, requiring people to have the courage to choose, the awareness of taking risks and the willingness to make mistakes.

In the current business environment, market fluctuations have become a prominent feature, and their unpredictability and ambiguity constitute the main challenges in the decision-making process. This ambiguity not only stems from objective environmental factors but is also closely related to the subjective cognition of decision-makers. With the acceleration of the globalization process and the rapid development of information technology, the traditional linear thinking mode and static analysis framework have been difficult to adapt to the rapidly changing market demands. Facing the complex and ever-changing business environment, enterprise leaders urgently need to transform their thinking paradigms and establish more flexible and adaptive decision-making mechanisms. This requires decision-makers not only to master data analysis capabilities but also to cultivate systematic thinking and strategic vision in order to deal with increasingly complex business challenges.

2. An Overview of Hedging Thinking

Hedging thinking originated from the risk management strategies in the financial field. Its essence is to offset potential losses by establishing reverse positions. In corporate decision-making, hedging thinking has evolved into a systematic risk management philosophy, emphasizing the dispersion and balance of risks through diversified strategies. Its core connotation lies in not pursuing the optimal solution of a single decision-making path but constructing a decision-making combination that can resist uncertainties, enabling the enterprise to maintain stable development in various market environments. The core principle of hedging thinking is based on the theory of risk diversification and hedging. By identifying the risk exposure in decision-making, targeted hedging measures are taken to reduce the overall risk exposure. This thinking mode breaks through the binary opposition of "either-or" in traditional decision-making. Instead, it seeks a dynamic balance between risks and returns.

In a business environment full of uncertainties, hedging thinking has evolved from a financial instrument to a core methodology of enterprise strategic management. This thinking paradigm breaks through the linear limitations of traditional decision-making and constructs a multi-dimensional risk management system.

The essence of hedging thinking lies in establishing a systematic defense mechanism. Unlike simple risk aversion, it effectively controls downside risks while maintaining development momentum by constructing complementary decision portfolios. When modern enterprises apply this thinking, they often carry it out from three dimensions: product portfolio hedging, market layout hedging and technology route hedging. This three-dimensional hedging structure enables enterprises to deal with market fluctuations calmly. From the perspective of theoretical foundation, hedging thinking integrates modern portfolio theory and real options theory. It emphasizes achieving precise matching of risk exposure through carefully designed decision combinations. In practice, it is manifested as follows: When the main business faces policy risks, develop anti-cyclical businesses in a coordinated manner; When there is a risk of technological substitution in the main product, lay out the alternative technology route in advance. Hedging thinking is not simply risk diversification. Its advanced form is reflected in the construction of strategic synergy, requiring that each hedging element can independently resist specific risks and form a strategic synergy. This art of dynamic balance is precisely the essence that distinguishes hedging thinking from traditional risk management.

In today's digital transformation era, hedging thinking has developed into a data-driven intelligent hedging model. Through big data analysis to predict risk correlations and using algorithms to optimize hedging portfolios, risk management is upgraded from empirical judgment to precise calculation. This evolution has enabled hedging thinking to demonstrate greater adaptability in the VUCA era.

3. Analysis of Enterprise Decision-making Risks

Enterprises' decision-making risks mainly come from market fluctuations, policy changes, technological iterations and operational uncertainties. Market risks are manifested as changes in demand and price fluctuations. Policy risks include regulatory adjustments and trade barriers. Technological risks involve innovation failures and industry disruptions. Operational risks cover supply chain disruptions, talent losses, etc. The emergence of these risks often stems from information asymmetry, environmental complexity and cognitive limitations of decision-makers. Enterprises' risk exposure will significantly expand When they overly rely on a single market, technological path or business model. At this point, the value of hedging thinking becomes particularly prominent.

In the market dimension, risks mainly manifest as structural changes in consumer demand and cyclical fluctuations in commodity prices. From a deeper perspective, this reflects the dynamic imbalance in the market supply and demand relationship and the continuous reconstruction of the competitive landscape. At the policy level, there are iterative updates of the regulatory framework and regional differences in international economic and trade rules. These changes often have the characteristics of unpredictability and discontinuity. The risks in the technology field are more complex, including the uncertainty of the output of R&D investment and the industrial disruption effect brought about by the replacement of technological routes.

Regarding operation and management, systemic risks include insufficient supply chain resilience and lagging talent team building. The formation mechanism of these risks mainly consists of three key elements: the decision-making blind spot caused by the information gap, the nonlinear change characteristics of the business environment, and the cognitive boundary limitations of the decision-making subjects. It is particularly worth noting that when a company's strategic layout shows a tendency towards uniformity, whether it is an excessively high market concentration, an overly strong reliance on technological routes, or a lack of flexibility in business models, all these will significantly amplify the potential impact of these risks. This single strategy often weakens an enterprise's ability to resist risks, making it particularly vulnerable when facing black swan events. Therefore, from the strategic risk management perspective, enterprises need to establish a multi-dimensional risk monitoring system, cultivate the organization's environmental adaptability, and enhance the risk response by optimizing the decision-making mechanism. This requires enterprises to pay attention to explicit risk factors and attach importance to those potential and long-term structural risks.

4. The Significant Role of Hedging Thinking in Enterprise Decision-Making Risks

4.1 Improve Decision-Making Efficiency

In the decision-making process, leaders often delay making decisions due to their inability to fully and effectively control the benefits of decision-making. Risk-hedging thinking can significantly improve the decision-making efficiency of leaders. On the one hand, hedging decisions enhance the

decision-making courage of leaders. The main reason why leaders cannot make decisive decisions is the lack of courage to bear the consequences of the decisions. The lack of courage is because uncontrollable factors influence their future development, and the probability of unexpected situations is relatively high. Hedging decisions enable leaders to review the benefits of the decisions comprehensively, have a clear understanding of the expected benefits, and increase the courage to make decisions.

On the other hand, hedging thinking increases the decision-making confidence of leaders. When facing the decision-making process, some leaders are naturally resolute and decisive. Regardless of the outcome, they are brave enough to confront and take responsibility. However, unfortunately, this group of leaders often overly focus on the speed of decision-making while neglecting the quality of decision-making. As a result, during the later implementation, they hesitate due to incomplete and unsystematic plans or involve many temporary decisions, causing disorder and affecting the outcome. Hedging thinking enables leaders to make decisions more comprehensive. Controlling the two extreme solutions of advantages and disadvantages enhances leaders' confidence in decision-making.

4.2 Reduce Decision-Making Risks

During the decision-making process, as the matter being dealt with is in the future rather than the present tense, incomplete information collection and forward-looking strategy formulation put the benefits of the decision at high risk. Incomplete information collection, inadequate logical analysis, and inaccurate risk control can all lead to a deviation in the decision-making direction, loss of control over the development of the situation, and deterioration of the event outcome. Risk hedging thinking can help leaders effectively control decision-making risks. On the one hand, it enriches the dimension of information cognition. Under the thinking of risk hedging, leaders need to master comprehensive and all-round information and then screen the relevant information of the research object through scientific means or methods. During information processing, leaders will understand the logical relationships among things and the primary and secondary order of contradictions and be well-prepared for future affairs.

On the other hand, optimize the problem-solving strategies. After analyzing and screening the relevant information of the decision-making object, leaders also need to rely on the deduction or analysis methods in economics to simulate the decision-making benefits through digital or visual processing. At the same time, they should choose two execution strategies to deal with the same event to ensure that the benefit index is positive or minimize losses, thereby reducing the decision-making risk to the lowest level.

5. The Practical Path of Hedging Thinking in Enterprise Decision-Making Risks

5.1 Define the Hedging Object

Hedging is not aimless and aimless blind hedging but rather a precise hedging against uncertain and unstable risks in the decision-making process. It is a method of preventing and eliminating risks through prior operations. Therefore, to hedge and manage decision-making risks, it is necessary to correctly predict, assess and define the risks that are about to be faced first. However, in real situations, misjudgments often occur in predicting risk probabilities. The main reasons are overestimating certainty, Overestimating the risks of events that are unlikely to occur, Assuming a correlation that does not exist, Too much weight has been given to events that are highly likely or unlikely to occur. However, no weight has been given to the event opportunities between the two. Therefore, defining the hedging object requires a scientific and systematic analysis of the possible risk sources, risk elements, risk types, risk frequencies, risk degrees, risk outcomes, and their intrinsic correlations in the decision-making process. It is also necessary to rank various risks with appropriate weights and screen out the most threatening, most frequently occurring, most uncertain, and most destructive risks. Only on this basis can the probability of risks occurring and causing serious consequences be reduced through precise hedging.

5.2 Select Hedging Resources

Resources are the tools or materials actors rely on to complete certain activities. They are the direct medium for decision-makers to implement strategies, including allocating resources and authority resources. Among them, allocation resources refer to the material resources used in the practical process. In contrast, authority resources refer to the immaterial resources in the practical process. To some extent, strategy is the interaction constructed by actors using resources and rules, and different ways of resource manipulation will form different strategic forms. Hedging is a strategy for reducing risks centered around manipulating resources and power. When making hedging decisions, leaders should determine which resources to select and how to hedge based on the nature of the hedging object and the types and quantities of resources they possess. The quality of hedging resources is not measured by absolute quantity or quality. However, by their effectiveness, that is, whether they can effectively influence the hedging object as the value criterion. In international politics or international relations, the resources for hedging include all the hard and soft power resources that a strategic entity possesses.

5.3 Form a Hedging Strategy

Hedging is a diversified decision-making model to prevent and avoid the possible loss of interests caused by a single decision by adopting diversified policies. This kind of diversified decision-making is not simply policy dispersion but rather a series of policy combinations with negative correlations formed by focusing on risks and capable of generating mutually offsetting effects. Hedging strategies have infinitely variable specific forms, but the key lies in the optimal allocation of the existing hedging

resources. Except in special circumstances, in constructing a diverse policy portfolio with negative correlations, allocating available resources is often not average or symmetrical. Therefore, when implementing a combination of two types of strategies that are both opposing and unified simultaneously, a higher weight and expectation will inevitably be given to one type, hoping to offset the risks encountered when implementing the other strategy and to obtain the profit after risk offset. Therefore, leaders must make strategic predictions about the risks of the two types of decisions and allocate more resources or weights to the main attack directions in the diversified strategies. The investment ratio formed by the two types of hedging resources is also known as the hedging ratio. It is a balance between taking risks and seeking profits, a judgment made by leaders after overall planning, and the core for forming specific hedging strategies.

5.4 Achieve Hedging Balance

Hedging is a strategic form with a strong defensive flavor. Its inherent logic is to maximize safe returns while minimizing losses. In hedging practice, there exists an equilibrium point, which can ensure that the risks and profits of the action exactly offset each other, achieving a break-even point. Hedging is similar to setting up a balance with an equal-arm lever. Risk is on one end of the balance, and to successfully lift the weight of risk, it is necessary to rely on cooperation between sufficient weights (hedging resources) and the sliding weight of the balance. Risk is an artificial concept, an uncertainty assessment, precisely the first characteristic of risk itself. Therefore, leaders need always to pay attention to changes in the situation and skillfully combine two types of policies with negative correlations to maintain a dynamic balance between risk and profit. When new risks arise, it is also necessary to incorporate new hedging promptly to offset them effectively. At this time, the hedging will enter a multi-risk systematic hedging mode. Of course, achieving a hedging balance is only the minimum goal of hedging. The more important task for leaders is to achieve overall surplus or even forced surplus through hedging, which depends on their grasp of strategic opportunities.

6. The Challenges and Strategies of Applying Hedging Thinking

6.1 The Application Challenges of Hedging Thinking in Enterprise Decision-Making Risks

However, the application of hedging thinking also faces many challenges. Additional cost expenditures often accompany hedging operations. They may reduce the enterprise's rate of return in the short term. The high market uncertainty can render hedging strategies ineffective, especially when systemic risks arise. Furthermore, hedging decisions require professional risk assessment capabilities and the support of complex mathematical models, which pose high demands on the knowledge reserves of enterprises. Effective hedging strategies require enterprises to have professional financial engineering teams and mature risk quantification models, which poses a threshold for small and medium-sized enterprises. To enhance the hedging effect, enterprises should place risk management at the forefront of the decision-making process and establish a closed-loop system that includes risk identification,

assessment, response and monitoring. The practice of a certain multinational pharmaceutical company establishing the position of Chief Risk Officer and incorporating risk management into the standing topics of the strategic committee is worth learning from.Meanwhile, by constructing real-time risk dashboards through digital means and combining scenario analysis and stress tests, the accuracy of hedging strategies can be enhanced. In terms of talent cultivation, there is a need for compound talents who are proficient in both enterprise operations and financial tools. Joint cultivation by schools and enterprises and industry qualification certification are feasible paths.

6.2 The Application Strategies of Hedging Thinking in Enterprise Decision-Making Risks

6.2.1 The Hedging of Innovation and Conservatism

In the process of enterprise development, innovation and conservatism are common strategic choices in the development of enterprises. Some enterprises are vitality-filled, advocating keeping pace with The Times and following the trend. Regarding development models, they advocate continuously spending much time and energy on innovation and creation. Some enterprises are down-to-earth and steady, advocating empiricism and modelism. They are accustomed to carrying out work tasks with established methods and strategies in their development models. Blind innovation cannot lead to a down-to-earth attitude, while blind conservatism can only result in complacency. Therefore, in the development of enterprises, the innovative and conservative models should be counterbalanced and combined, advocating a comprehensive development model that ensures both stability and innovation within the enterprise and achieves stability within innovation, thereby realizing healthy and sustainable development. On the one hand, based on the actual development status of the enterprise, the "original capital," such as time, energy or funds invested in the innovative model and the conservative model, is quantitatively assigned values to determine which combination of development models the enterprise adopts at which stage of development. On the other hand, in accordance with the basic development plan or predictive development blueprint of the enterprise, the "original capital" invested in the innovative model and the conservative model is allocated by coefficient to solve the problem of how much the enterprise invests in the innovative model and the conservative model respectively at a specific development stage. Finally, through reasonable combination, the stable and innovative development of the enterprise is achieved.

6.2.2 The Offensive and Defensive Hedging

Under the distinctive social trend, enterprises must adopt distinctive development strategies to deal with social competition and pressure calmly and rationally formulate development methods and approaches. Some leaders are fierce, enjoy challenges and risks, and are accustomed to offensively suppressing competitors. Some leaders are naturally quiet, prefer peace and stability, and tend to adopt a defensive attitude to resist external invasions. Unthinkingly attacking will consume a great deal of human, material and financial resources, while unquestioningly defending will continuously lead to being oppressed by the outside world. Only by rationally combining and appropriately integrating

offense and defense to form a development force that is powerful in offense and vigorous in defense can an enterprise stand firm in society. It is necessary to carry out a counterbalanced combination of offensive and defensive strategies for the enterprise's market development strategy. On the one hand, based on the preset development goals, the target information is summarized and analyzed in a targeted manner. Then, the offensive and defensive strategies are combined to formulate strategies such as attacking first and then defending, defending first and then attacking, or both offensive and defensive. On the other hand, according to the preset combination, the offensive and defensive intensity are scientifically assigned values, and the investment levels are allocated. After the initial simulation exercises, phased implementation is carried out and then continuously improved and optimized to achieve the goal of gradual development.

6.2.3 The Hedging of Experience and Reasoning

Experience and reasoning are important forms of decision-making means. Based on practical experience in decision-making, leaders will develop strategies and plans to deal with problems. In the future, when facing similar problems, they can directly respond to the strategies and implement the plans based on their existing experience. However, the environmental conditions in which things are situated are constantly changing. Some experiences that seem very similar to the past have undergone tremendous changes in time and space, leading to the failure of leaders' decisions. Logical reasoning is a supplement and summary of practical experience. In the decision-making process, if one only focuses on applying experience from beginning to end, it is easy to fall into the cage of fixed thinking and be unable to adapt when unexpected situations arise. Suppose one only focuses on logical reasoning from beginning to end. In that case, it is easy to be divorced from reality, leading to incorrect results. Therefore, formulating the implementation plan requires a counterbalance between experience and reasoning in the decision-making process. On the one hand, fundamental decisions should be based on experience. According to the previous event-handling strategies, potential influencing factors should be explored in a targeted manner to improve the strategies.On the other hand, comprehensive decision-making should enhance deduction. Based on empirical strategies, new problems, environments, and situations should be re-examined comprehensively. The strategies' executability should be reasoned and deduced from all aspects and multiple perspectives so that they can be effectively implemented.

7. Conclusion

Minor uncertainty may trigger systemic risks and cause incalculable social costs in a contemporary society full of variables and challenges. Facing this realistic predicament, constructing a scientific decision-making system and improving risk control capabilities have become the core propositions of global governance. Hedging thinking, as a forward-looking risk management paradigm, can significantly enhance an organization's ability to cope with complex environments by constructing a

diversified decision matrix. To fully leverage the strategic value of hedging thinking, decision-makers need to establish a systematic implementation path. Firstly, they need to identify the risk sources and hedging targets accurately. Secondly, it is necessary to allocate hedging resources and construct a multi-dimensional guarantee system scientifically. Then, formulate a dynamic and balanced hedging strategy portfolio. At the specific operational level, it is necessary to focus on grasping four key dialectical relationships: the coordination of innovation breakthroughs and risk avoidance, the balance between strategic progress and stable defense, the integration of experience inheritance and rational analysis, as well as the unity of institutional rigidity and enforcement flexibility. This systematic hedging management framework can help organizations maintain strategic resolve in an uncertain environment and achieve sustainable development.

References

Bing, T. (2020). Dealing with Daily Risks with Hedging Thinking. *Xiaokang*, (07), 92.

Du, L. (2024). *Research on Issues and Countermeasures of Government Financial Report Preparation*. Shandong University of Finance and Economics.

Jia, W. (2017). *Design and Analysis of Quantitative Hedging Strategy Based on Momentum Effect*. Shanghai Normal University.

Liu, Y. (2017). *Research on China's Current "Hedging" Strategy in Response to the United States*. Huaqiao University.

Liao, J. Z., & Yan, D. C. (2021). The art of leaders in the Uka Era using hedging thinking to manage decision-making risks. *Leadership Science*, (05), 67-70.

Wang, D. (2018). Research on Hedging Behaviors in International Relations: A Case Study of Asia-Pacific Countries. *World Economy and Politics*, (10), 21-49+157.

Yin, Z. L. (2015). Understanding Market Style Transformation with Hedging Thinking. *Financial Expo (Fortune)*, (01), 94.

Yang, J. (2021). *Design of Cross-Hedging Scheme for Hedging Domestic Refined Oil Price Risks*. Harbin University of Commerce.

Zhou, Y. (2017). Exploring the Significance of Shaping Financial Discipline Thinking in the Education of College Students' Thinking System. *CAI Zhi*, (15), 99.

Zhang, F. L. (2020). Principles and Strategies of Applying Risk Hedging Thinking in Predictive Decision-making. *Leadership Science*, (23), 28-30.