

Analysis of Risk Control Strategy of Enterprise Self-Funded Investment Management

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Abstract: With intensifying market competition and growing financial complexity, strengthening risk control in corporate capital investment management has become imperative. This paper examines the critical role of risk management in ensuring financial stability, optimizing resource allocation, and achieving strategic objectives. It identifies key risk categories including market volatility, liquidity challenges, operational risks, and strategic misalignment, while proposing targeted strategies such as dynamic monitoring, strategic planning, decision-making optimization, and focused risk management.

Keywords: Enterprise; Self-owned capital; Investment management; Risk control

Online publication: September 11, 2025

1. Introduction

Amidst accelerating economic shifts and heightened financial market volatility, enterprises are increasingly leveraging their own capital for investments^[1]. In this context, effective risk management directly determines the safety and profitability of corporate investments. Potential risks including market uncertainties, liquidity constraints, operational errors, and strategic misalignments, if not properly identified and controlled, could jeopardize financial stability and sustainable growth. Therefore, developing tailored risk control strategies that address the unique characteristics of self-owned capital investment holds significant practical value. Such strategies enable companies to enhance value creation and achieve strategic objectives while ensuring capital security.

1.1. The significance of risk control in the investment management of enterprise own capital

1.1.1. Promoting the optimization of enterprise resources

During the investment project evaluation phase, enterprises can conduct precise analysis of return-to-risk ratios through risk control systems. By accurately assessing each project's risk level and ensuring risk exposure aligns

with corporate strategic positioning, companies can achieve targeted resource allocation. For low-risk projects with sustainable returns, management may moderately expand capital injections to maintain competitive leadership. When dealing with high-risk investments offering substantial profit potential, phased capital distribution should be implemented through risk management frameworks, coupled with appropriate control measures. This approach enables enterprises to effectively avoid excessive capital concentration while pursuing high returns, thereby achieving efficient capital turnover and promoting coordinated development of profit margins and resource conversion efficiency ^[2].

1.1.2. Supporting the achievement of enterprise strategy

Corporate investment projects typically revolve around strategic objectives, ranging from vertical integration and diversified operations to global expansion. Optimizing investment portfolios serves as a driving force for these initiatives. Strengthening risk control mechanisms enables enterprises to promptly identify and mitigate risks in strategic development. When implementing multi-sector expansion strategies or entering new industries, inadequate risk management may lead to operational difficulties due to insufficient understanding of legal constraints and market structures. Prior to entering new sectors, companies should conduct thorough risk identification and assessment, develop contingency plans, and ensure the safety of internal funds as a prerequisite. This approach facilitates stable diversification efforts while guaranteeing that strategic implementation achieves anticipated outcomes ^[3].

2. Risks of investment management of enterprise's own capital

2.1. Market risks involve technological progress and demand changes

In sectors with high technical barriers, the critical challenge lies in dynamically adapting technology roadmap decisions to evolving market demands. Cutting-edge innovation typically manifests through coexisting multi-technological paradigms. The delayed unification of technical standards diminishes the early-mover advantage of initial investments, while interrelated technological alternatives accelerate the depreciation of existing corporate capital. The non-linear nature of standardization processes further complicates decision-making.

Product iteration cycles are compressed by shifting consumer habits and upgraded application scenarios. Manufacturers must establish demand forecasting systems. Any misjudgment regarding technological innovation directions or consumer acceptance risks becoming technologically constrained. This risk is particularly pronounced in frontier fields like semiconductors and new energy technologies, where existing investments struggle to keep pace with emerging demands. Their value diminishes continuously, resulting in capital appreciation efficiency far below market expectations. When technology iteration frequency fails to align with asset depreciation schedules, systemic impairment risks may emerge ^[4].

2.2. Liquidity risk is faced by asset characteristics and market conversion

Given the capital-intensive nature of heavy asset investments, capital lock-in periods are inherently prolonged. Specialized equipment typically requires 3–5 years from planning to full production capacity realization. The mismatch between asset depreciation cycles and technological upgrade rates forces existing assets to undergo technical upgrades before profitability takes hold. When supply chains shift, this characteristic becomes increasingly pronounced: component shortages can immediately disrupt production systems. The limited functionality of specialized equipment makes it difficult to realize value through secondary circulation. Combined

with liquidity constraints and valuation barriers for non-standard assets, the uncertainty of technological substitution strips residual value assessments of reference benchmarks, putting pressure on secondary market transactions. Insufficient corporate subscriptions lead to hidden cost losses. In sectors like energy storage equipment and specialized processing machinery, the “investment-as-solidification” phenomenon continuously deteriorates balance sheets, ultimately triggering cash flow depletion ^[5].

2.3. Operational risks exist in the decision-making process and execution system

Inadequate institutional frameworks in investment decision-making create a cycle of risk accumulation. When relying solely on subjective judgment without data-driven analysis, emerging sectors like the metaverse often suffer from evaluation biases that undermine risk assessment frameworks and hinder cross-departmental collaboration. This slows decision-making processes, particularly in time-sensitive fields such as AI-powered healthcare and autonomous driving, where market timelines are typically estimated monthly. Inefficient administrative procedures directly impede the identification of investment opportunities. Modern digital management systems face a critical mismatch between security protocols and innovative technology platforms, particularly evident in scenarios like remote work solutions and cloud computing platforms. This contradiction manifests through dual risks: potential data breaches due to security vulnerabilities, coupled with trade-offs between enhanced protection measures and decision-making efficiency, creating a zero-sum game where increased security measures often come at the expense of business opportunities ^[6].

2.4. Strategic risk is manifested as the contradiction between resource allocation and enterprise ability

When enterprises blindly chase market trends, they risk disrupting strategic resource allocation. Overinvesting in non-core sectors during diversification efforts weakens core business support and erodes technological advantages. Incoherent strategic investments often lead to operational disruptions, increased complexity, and coordination costs. Structural imbalances in innovation investments create systemic risks: projects prioritizing quick returns may divert resources from core R&D, weakening corporate technological leadership. Innovation gaps in biotechnology and advanced manufacturing could undermine industry dominance. Rash strategic realignments may trap companies in a “growth trap”, that experiencing revenue growth while sacrificing core competencies, resulting in low-quality expansion ^[7].

3. Risk control strategy of enterprise self-owned capital investment management

3.1. Establish and improve the dynamic monitoring and rapid response mechanism

To address the reality of rapid industry competition, this study established a 24/7 multi-domain risk identification platform. This involves designing technical data collection processes through patent database searches, academic literature tracking, and industry exhibition monitoring to map technological breakthrough pathways. By applying NLP methods for semantic mining of technical data, this study pinpointed potential industry innovation hotspots. A market environment change early-warning system should be established by aggregating customer demand signals, marketing channel insights, and industry benchmarking materials. Data-driven approaches will predict demand fluctuation nodes and create demand fluctuation early-warning monitoring models. From a decision implementation perspective, this study adopted responsive investment management strategies: breaking long-term investments into multiple rounds of trials, with phased verification benchmarks for technical maturity and

market adaptability. Operational stages include creative testing, solution validation, and pilot production. Multi-dimensional decision-making teams should conduct challenger simulation assessments to regularly evaluate the risk resilience of technical implementation plans and business logic. For strategic-level key investments, this study applied risk-hedging R&D frameworks while advancing both primary and alternative solutions. Through redundant planning of technical approaches, this study mitigated path dependence risks. From resource integration perspectives, flexible investment units should be established ^[8].

In line with the technology lifecycle, this study should strategically allocate capital investments: During initial innovation phases, prioritize data collection and pilot projects; when scaling up production, ramp up manufacturing investments; after maturation, secure competitive advantages through mergers and acquisitions while establishing real-time risk monitoring systems. Incorporate critical metrics like technology obsolescence risks and market coverage into investment calculations. When key variables exceed predefined thresholds, proactively activate contingency plans that include technology integration, asset restructuring, and transformation strategies. By implementing closed-loop management, this approach enables a paradigm shift from passive risk response to proactive value creation ^[9].

3.2. Carry out scientific investment layout

When implementing internal capital investment management, enterprises can effectively control risks through portfolio allocation. By diversifying disposable funds across different asset classes, companies can mitigate significant losses caused by underperforming individual assets and maintain overall portfolio stability. Given the high interdependence of global economies and the strategic importance of regional diversity, distinct economic cycles, political landscapes, and monetary policies across countries lead to markedly different market dynamics. Adopting a geographical diversification strategy allows enterprises to strategically allocate investments while recognizing that emerging economies may still maintain robust growth momentum even as domestic markets contract ^[10].

Implementing geographically diversified investment portfolios effectively controls exposure risks from regional concentration, enhancing portfolio resilience and safety margins. In portfolio management, enterprises should adopt an industry-wide deployment approach as the fundamental principle. Major industries exhibit differentiated growth drivers with varying potential and risk levels. Technological breakthroughs and R&D expenditures form the cornerstone of the tech sector, whose performance correlates positively with consumer disposable income and consumption propensity. When enterprises invest with self-raised funds, they should control the concentration of investments in a single industry by adopting a diversified investment strategy across sectors. This approach reduces the constraining effect of risks in specific industries on portfolio performance. Implementing investment categorization by enterprise scale enables effective risk management. Large enterprises typically demonstrate stable operations and strong risk resilience, though their revenue growth tends to be relatively slow.

Small enterprises, however, face inherent risks. Their long-term value-added potential is evident. During the investment planning phase, strategically allocating investments according to enterprise size levels allows the portfolio to better respond dynamically to market changes and economic conditions, thereby achieving risk diversification objectives ^[11].

Optimize strategic decision-making and collaborative execution. In the decision-making framework, this study implemented a data-driven collective evaluation process by establishing a comprehensive assessment

matrix that evaluates technical feasibility, market potential, and financial returns. Technologically, we utilize patent landscape analysis and technology maturity curves. Commercially, this study integrates consumer profiling data and competitor monitoring through Monte Carlo simulations to predict financial risks and returns. An empowerment evaluation system quantifies qualitative factors, reducing subjective biases in decision-making. Practically, this study established an intelligent decision hub to ensure seamless data integration across departments, enabling real-time synchronization of investment, risk control, and execution data ^[12]. By implementing RPA technology for approval processes, we transform sequential approvals into parallel workflows. Intelligent matching algorithms optimize approval routes, shorten critical investment timelines, resolve decision conflicts, and automatically initiate external expert reviews for contentious projects, preventing missed deadlines due to prolonged disputes. For security protection, this study adopted a zero-trust architecture. The established security framework replaces traditional perimeter defenses with dynamic identity authentication mechanisms. By leveraging real-time identity verification and behavioral pattern analysis, it effectively prevents data security breaches. Through micro-segmentation of core decision-making systems with minimal access controls, the system maintains operational integrity even when individual components are compromised.

Concurrently, the development of a security acceleration engine enhances hardware-based encryption computation and compliance review modules, significantly reducing verification time while ensuring data security and achieving sub-second-level system response capabilities ^[13].

3.3. Strengthening strategic focus and resource integration capacity

From a holistic strategic perspective, this study developed an R&D investment evaluation matrix structured in three dimensions: technological barriers, market synergy potential, and resource alignment. This framework enables dynamic adjustments to core competency scopes, utilizing Porter's Five Forces model for industry analysis to identify key competitive factors. Resources are strategically allocated to areas that build long-term competitive advantages, such as IC design companies exploring cutting-edge processes and automakers developing core battery control systems ^[14].

This study established clear boundaries for resource allocation: when marginal business investments exceed 15%, the system automatically triggers strategic review to prevent resource fragmentation caused by reckless expansion. To meet risk diversification requirements, we upgraded capital operation models through industrial merger funds and technology incubation platforms, effectively separating risks between core operations and hot sectors. This dual approach balances strategic synergy with financial returns, enabling small-scale equity participation in frontier fields like quantum computing and metaverse development while maintaining technological tracking and expenditure control. Establishing a reverse feedback channel for innovation outcomes will create a technical and data integration bridge between external capital investment and core business operations, enabling the reverse transmission of innovative achievements.

For innovation management, this study developed tracking metrics including the proportion of basic research funding, patent coverage extent, and pre-research project cycles, incorporating these quantitative indicators into executive performance contracts. A CTO-directed cutting-edge technology pre-research team will be established to manage mid-term (3–5 years) technological resource development. Implementing a real-time technical reserve alert system, we will activate investment enhancement mechanisms when industry upgrade probability exceeds 60%, execute periodic optimization plans, conduct quarterly strategic resource reviews, and utilize heat maps to visually display resource distribution density. This ensures synchronized advancement of technological reserves

and industry rankings ^[15].

4. Conclusion

Risk management in corporate capital investment is crucial for ensuring fund safety and stable growth. By implementing strategies including dynamic monitoring, strategic investment planning, optimized decision-making execution, and focused strategic positioning, enterprises can effectively navigate complex market conditions and control risks. Companies must stay attuned to evolving market trends and updated risk management philosophies. Through continuous evaluation and refinement of their risk control systems, businesses can address emerging challenges and ensure sustained, healthy development outcomes.

Disclosure statement

The authors declare no conflict of interest.

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