The Impact of Capitalizing R&D Expenditure on the Execution of Enterprise Innovation Strategy Management

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Abstract

With the in-depth implementation of the innovation-driven development strategy and intensifying market competition, enterprises are paying increasing attention to R&D activities, and R&D investment has become an important indicator for measuring innovation capability and development potential. As a key accounting treatment method, the capitalization of R&D expenditure has a distinctly dual effect on the execution of enterprise innovation strategy management. On the one hand, it can optimize corporate financial statements, enhance financing capacity in the capital market, encourage sustained R&D investment, and provide accurate accounting information to support resource allocation for innovation strategies, thus promoting effective implementation. On the other hand, its application may lead to increased financial risks, short-termism in innovation strategy execution, and difficulties in information disclosure and regulation, posing challenges to the long-term advancement of innovation strategies. This paper systematically analyzes the positive and negative impacts of R&D expenditure capitalization on the execution of innovation strategy management and proposes recommendations such as improving financial management systems, rationally planning R&D investment, and strengthening external support to help enterprises achieve sustainable, innovation-driven development.

Keywords

R&D Expenditure Capitalization, Innovation Strategy, Strategy Management, Enterprise R&D.

1. Introduction

Innovation is the core driving force for the sustainable development of enterprises, and R&D activities, as the primary vehicle for innovation, directly affect the achievement of strategic goals through their scale of investment and management efficiency. R&D expenditure can be treated in two ways-capitalization or expensing-and different treatments have varied effects on an enterprise's financial position, operating results, and strategic decisions[1-2]. Capitalizing R&D expenditure recognizes qualifying R&D costs as intangible assets, changing the traditional expensing method that directly offsets current profits. This accounting policy choice has increasingly become an important tool for enterprises to adjust resource allocation and promote the implementation of innovation strategies. A deeper examination of how R&D expenditure capitalization specifically impacts the execution of enterprise innovation strategy management has significant practical value for optimizing R&D management and improving innovation performance.

2. The Importance of R&D Investment for Enterprises under the Innovation-Driven Development Context

The full implementation of the innovation-driven development strategy is shifting the mode of economic growth from factor-driven to innovation-driven. As the core players in innovation,

enterprises' level of R&D investment is a key factor in adapting to this transformation. In the global wave of industrial upgrading and technological reform, market demands for technological innovation continue to rise. Enterprises without sustained R&D investment will find it difficult to cope with evolving industry standards and changing market needs.

The intensity of R&D investment is directly linked to the speed of technological accumulation. Adequate investment supports in-depth research in core technology areas and the creation of a systematic technological knowledge structure. Building such a knowledge system not only helps enterprises maintain technological leadership in existing business areas but also lays a foundation for cross-sector innovation and new business expansion. The technical results generated by R&D can be transformed into product competitiveness, increase product added value, enhance the enterprise's bargaining power in the market, and improve profitability, thereby solidifying the foundation for long-term development in a competitive landscape.

3. Positive Impacts of R&D Expenditure Capitalization on the Execution of Enterprise Innovation Strategy Management

3.1. Optimizing Financial Statements and Enhancing Financing Capacity

Under the capital market's conditions of information asymmetry, corporate financial statements are a key reference for investors and creditors in evaluating enterprise value. Capitalizing R&D expenditure recognizes eligible costs as intangible assets, altering the expensing treatment that directly deducts such costs from current profits. For example, taking iFLYTEK as a case study: prior to capitalization, the company's asset growth rate was 5%, debt-to-asset ratio was 55%, net profit growth rate was 8%, earnings per share (EPS) growth rate was 6%, and return on equity (ROE) was 12%. After capitalization, the asset growth rate rose to 20%, the debt-to-asset ratio dropped to 45%, the net profit growth rate increased to 28%, EPS growth rate climbed to 18%, and ROE rose to 22% (see Figure 1). This treatment expands asset size, lowers the debt-to-asset ratio, and improves profitability indicators, better reflecting the long-term value of R&D[3-4]. It sends a signal to the market about the potential of innovation projects, strengthening investor confidence in the enterprise's innovative capacity, reducing financing costs and discount rates, securing funding, and supporting the steady advancement of R&D projects.

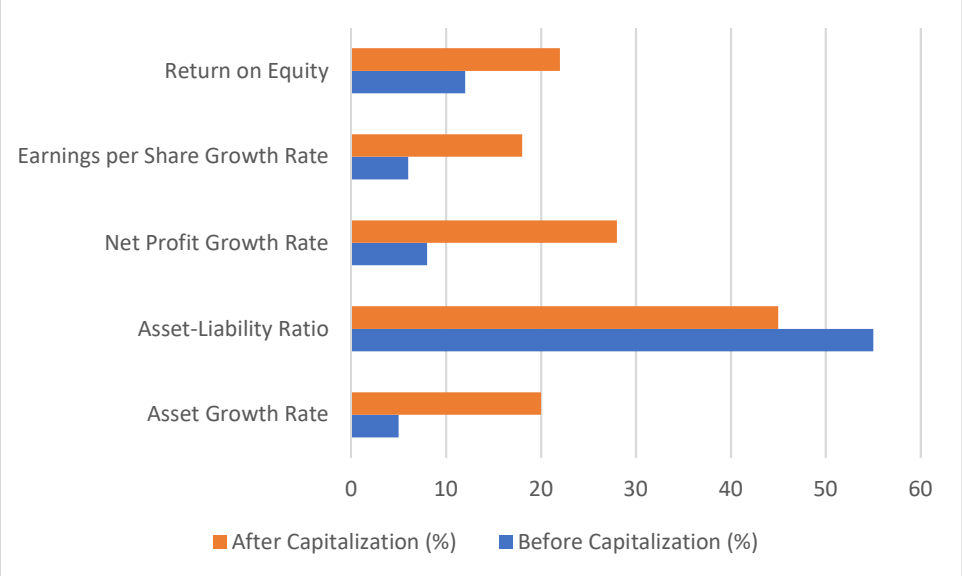

Figure 1. Comparison of iFLYTEK's Financial Indicators Before and After R&D Expense Capitalization

3.2. Encouraging Enterprises to Increase R&D Investment

In enterprise management practice, there is often tension between performance evaluation systems and long-term strategic objectives. Management decisions are easily swayed by short-term performance indicators. Given the high cost of R&D activities, expensing such costs directly affects current profits, potentially lowering performance metrics in the short term and thus affecting management evaluations. This can, to some extent, reduce management's motivation to invest in R&D. Capitalizing R&D expenditure allows a portion of R&D costs to be amortized over future periods. By allocating the cost across multiple accounting periods, the impact on current performance is mitigated, enabling management to make strategic decisions with less concern over short-term profit fluctuations. This shifts the focus toward the long-term market value and technical returns of R&D projects. As a result, short-term performance pressures have less influence on R&D decision-making, encouraging greater resource allocation to the development of core technologies with long-term competitiveness, without cutting necessary R&D investment due to short-term financial concerns.

3.3. Supporting Resource Allocation for Innovation Strategies

When implementing innovation strategies, enterprises often face multiple simultaneous R&D projects while working within limited overall resources. Determining how to precisely allocate resources to projects that will maximize strategic value becomes a management challenge. The capitalization of R&D expenditure requires differentiated treatment of project costs-only those meeting specific criteria can be capitalized. This process prompts enterprises to systematically evaluate the technical feasibility and market prospects of each R&D project. Through analysis of factors such as projected future cash flows and risk levels, a quantitative assessment of project value can be obtained[5-6]. Based on the project value information provided through capitalization, enterprises can identify projects with strong alignment to core strategies and stable expected returns, concentrating human, material, and financial resources on them, and avoiding the dispersion of resources to low-value projects. The fluctuations in the value of intangible assets formed through capitalization can serve as feedback signals for project progress. If the value of a project's intangible assets grows slowly or shows signs of impairment, the enterprise can promptly adjust resource allocation to ensure resources flow to areas most conducive to achieving innovation strategy goals (see Table 1).

Table 1. Specific Manifestations of Innovation Strategy Resource Allocation

Positive Impact	Specific Manifestation
Resolving Resource Allocation Challenges	Addresses issues of multiple simultaneous projects and limited resources, facilitating the precise allocation of resources to projects with high strategic value
Promoting Scientific Project Evaluation	Encourages systematic project evaluation, enabling quantified value assessments
Optimizing Resource Inclination	Helps identify high-quality projects, concentrating resources to avoid dispersion
Achieving Dynamic Resource Adjustment	Uses changes in intangible asset value as a signal to promptly adjust resource flows

4. Negative Impacts of R&D Expenditure Capitalization on the Execution of Enterprise Innovation Strategy Management

4.1. Increased Financial Risk

Although the criteria for capitalizing R&D expenditure are clearly defined, in practice the assessment of technical feasibility and the preliminary estimation of future economic inflows rely heavily on the professional judgment of accountants and management, which is highly

susceptible to subjective bias. If an enterprise seeks to embellish its financial statements by forcibly capitalizing R&D expenditure that is still in the exploratory stage and lacks sufficient technological maturity, it may directly inflate the book value of intangible assets. Should the project later encounter technical bottlenecks or low market acceptance, these intangible assets will face impairment risks, and large impairment losses will directly erode corporate profits, potentially leading to cash flow disruptions. Moreover, because there is flexibility in choosing the amortization period and method for capitalized expenditure, an enterprise that arbitrarily changes its amortization policies to manipulate profits will increase profit volatility across future periods. This undermines the reliability of financial data, hinders investors' ability to assess the enterprise's actual operating condition, and heightens financial risk, thereby impeding the steady implementation of innovation strategies.

4.2. Short-Termism in Innovation Strategy Execution

While capitalizing R&D expenditure can reduce short-term profit volatility, it may also be used by management as a tool to evade long-term responsibility, fostering a short-sighted approach to innovation strategy execution. Since performance evaluations for management are often tied to financial indicators within their tenure, the ability to defer recognition of R&D costs through capitalization incentivizes a preference for projects that can quickly qualify as intangible assets and deliver rapid performance results. By contrast, projects requiring long-term investment-such as basic research or core technology breakthroughs-tend to have longer, more uncertain paths to capitalization and are thus often excluded from the priority R&D list. This resource bias may cause a disproportionate focus on applied innovation at the expense of disruptive technology reserves, leading the innovation strategy to drift away from long-term value creation. As market technology barriers continue to rise, enterprises relying solely on short-term innovations will struggle to cope with intensifying competition and may ultimately lose strategic initiative.

4.3. Challenges in Information Disclosure and Regulation

The capitalization of R&D expenditure involves complex processes such as forecasting future cash flows and estimating the useful life of intangible assets, which require numerous assumptions and modeling. These complexities pose challenges for the preparation of financial reports. During the information disclosure process, enterprises-motivated by a desire to conceal project risks or embellish performance-may deliberately simplify explanations of key assumptions or blur the boundaries between capitalization and expensing[7]. This makes it difficult for external stakeholders to accurately evaluate the real outcomes of R&D activities. Such information asymmetry erodes capital market trust in the enterprise's R&D projects, distorts investor judgment of its innovation capabilities, and can reduce the efficiency of securing R&D funding through equity or debt financing. Moreover, because regulatory agencies often lack deep insight into the technical specifics of R&D projects, they cannot immediately verify the reasonableness of capitalization decisions. Delayed regulatory action may inadvertently allow some enterprises to engage in non-compliant practices, undermining fair market competition and indirectly slowing the healthy development of corporate innovation strategies.

5. Recommendations for Leveraging R&D Expenditure Capitalization to Advance the Execution of Enterprise Innovation Strategy Management

5.1. Improve the Financial Management System

Enterprises should establish a comprehensive financial management framework that spans the entire lifecycle of R&D projects-from initiation, development, and acceptance to subsequent measurement. During the project initiation stage, a standardized evaluation mechanism should

be implemented: the technical department should prepare a feasibility report, the marketing department should conduct a demand and market outlook analysis, and the finance department should estimate the expected returns. These three departments should jointly issue a capitalization admission opinion, clarifying detailed criteria for inclusion, such as the maturity level of the technical solution and the threshold for projected market share.

During the R&D process, a phased accounting mechanism should be adopted, with internal audits carried out at project milestone nodes to review the alignment between expenditures and project progress, thereby preventing unrelated costs from being included in the capitalization scope. For intangible assets that have undergone capitalization, a dynamic amortization mechanism should be put in place, adjusting the amortization period according to the rate of technological iteration and the market application situation. At the same time, quarterly impairment tests should be conducted, factoring in industry technological developments and product market performance, to make timely impairment provisions. This ensures that financial data accurately reflects asset value, providing a reliable basis for innovation strategy decision-making.

5.2. Plan R&D Investment Rationally

Enterprises should formulate a three-year continuous R&D investment plan aligned with the long-term objectives of their innovation strategy, clearly defining the resource allocation ratio between short-term breakthrough projects and long-term basic research. For example, MCC Jingtang Steel, in line with China's "14th Five-Year Plan," has scheduled the implementation of 100 key R&D projects from 2023 to 2025, with an estimated investment of nearly RMB 200 million in the first two months of 2023 alone. Project selection follows a dual-dimensional evaluation approach: short-term efforts focus on achieving market-ready results within one to two years to meet capitalization criteria, while long-term efforts prioritize building the value of core technology systems. In this case, short-term project investment accounts for 65% of total R&D expenditure, and long-term projects for 35% (see Figure 2).

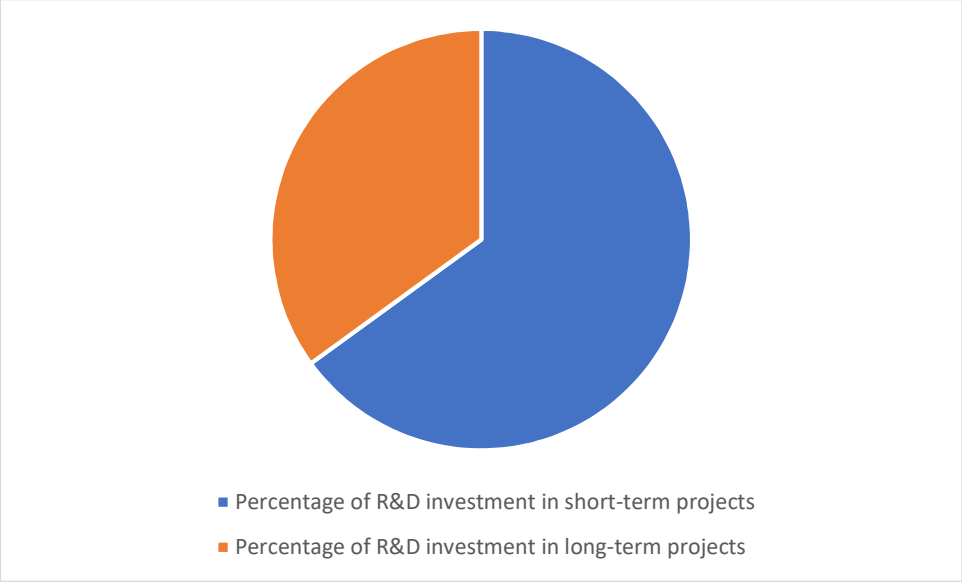

Figure 2. Proportion of Key R&D Project Types at MCC Jingtang Steel

Enterprises should implement dynamic allocation of R&D resources, reviewing project progress quarterly and adjusting investment intensity accordingly. For projects that meet capitalization requirements, funding should be released in stages according to milestones such as technical verification, prototype development, and market testing. For basic research

projects that temporarily do not meet capitalization criteria, dedicated reserve funds should be established to prevent interruptions caused by short-term financial pressure, thereby ensuring that R&D investment remains consistent with the long-term objectives of the innovation strategy.

5.3. Strengthen External Environmental Support

Government departments should take the lead in revising accounting standards for R&D expenditure capitalization, providing detailed clarifications on key judgment criteria such as "technical feasibility" and "future economic benefits," and clearly defining the capitalization boundaries for different industries to reduce subjectivity in accounting treatment. Regulatory agencies should develop a multidimensional supervision system, leveraging technological tools to monitor the alignment between R&D expenditure and changes in intangible assets, and conduct targeted inspections of enterprises exhibiting abnormal patterns[8-9]. At the same time, companies should be required to provide detailed disclosures in their annual reports on the technical specifics of capitalized projects, the market analysis basis, and the rationale behind amortization policies, to improve information transparency.

In addition, a sound system of incentive policies should be established: providing certain tax benefits for R&D investments associated with capitalization projects, creating special funds to finance long-term R&D initiatives, and allowing related financing costs to be included in capitalization. For collaborative R&D projects between enterprises and research institutions, the capitalization criteria could be moderately relaxed to encourage greater enterprise participation in fundamental and forward-looking technological research, thereby creating a favorable external environment for the implementation of innovation strategies[10].

6. Conclusion

As an important accounting policy choice, the capitalization of R&D expenditure has a dual impact on the execution of innovation strategy management. Its positive effects-such as optimizing financial statements, stimulating R&D investment, and facilitating resource allocation-can provide strong support for advancing an enterprise's innovation strategy. However, its potential to trigger financial risks, foster short-termism, and create regulatory challenges also places higher demands on corporate management capabilities.

When leveraging R&D expenditure capitalization, enterprises should perfect their financial management systems, plan R&D investment rationally, and align internal practices with supportive external conditions to maximize benefits and minimize risks. By doing so, this accounting tool can better serve the achievement of innovation strategy objectives. As the market environment and accounting standards continue to evolve, enterprises must also continuously adjust their R&D expenditure management strategies to enhance the effectiveness of innovation strategy management and achieve sustainable development.

References

[1] Eberhart, A. C., Maxwell, W. F., & Siddique, A. R. (2004). An examination of long-term abnormal stock returns and operating performance following R&D increases. Journal of Finance, 59(2), 623–650.

[2] Lev, B., Sarath, B., & Sougiannis, T. (2005). R&D reporting biases and their consequences. Contemporary Accounting Research, 22(4), 977–1026.

[3] Sandner, P. G., & Block, J. (2011). The market value of R&D, patents, and trademarks. Research Policy, 40(7), 969–985.

[4] Fields, T. D., Lys, T. Z., & Vincent, L. (2001). Empirical research on accounting choice. Journal of Accounting and Economics, 31(1), 255–307.

[5] Ely, K., Simko, P. J., & Thomas, L. G. (2003). The usefulness of biotechnology firms' drug development status in the evaluation of research and development costs. Journal of Accounting, Auditing & Finance, 18(1), 163–196.

[6] Rousseau, M. B., Mathias, B. D., Madden, L. T., & Crook, T. R. (2016). Innovation, firm performance, and appropriation: A meta-analysis. International Journal of Innovation Management, 20(3), 1650033.

[7] Entwhistle, G. M. (1999). Exploring the R&D disclosure environment. Accounting Horizons, 13(4), 323–341.

[8] Lev, B., & Zarowin, P. (1999). The boundaries of financial reporting and how to extend them. Journal of Accounting Research, 37(2), 353–385.

[9] Duqi, A., Jaafar, A., & Torluccio, G. (2015). Mispricing and risk of R&D investment in European firms. European Journal of Finance, 21(5), 444–465.

[10] Schankerman, M. (1998). How valuable is patent protection? Estimates by technology field. RAND Journal of Economics, 29(1), 77–107.