

# Integrated Management Models and Innovative Systems for Venture Capital Business Enterprises

Jingming Liang

Hangzhou Wickham International School, Hangzhou, China

Email: liangkingming04@outlook.com

**How to cite this paper:** Liang, J. M. (2023). Integrated Management Models and Innovative Systems for Venture Capital Business Enterprises. *Modern Economy*, 14, 1722-1733. <https://doi.org/10.4236/me.2023.1412090>

**Received:** October 18, 2023

**Accepted:** December 12, 2023

**Published:** December 15, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

Venture-capitalized commercial enterprises are an important part of economic development, and the comprehensive management model and innovation system of venture-capitalized commercial enterprises are studied to guide the benign development of the enterprises more scientifically. After defining the management model of venture capital class business enterprises, the factors affecting the optimization of business model are analyzed from the macro and micro perspectives, and analyzed specifically in the light of the actual situation. Based on the exploration of the comprehensive management model of the enterprise, the optimization is targeted. Guided by the value chain of the enterprise, the system innovation is realized by cultivating a perfect venture capital service system, forming a strategic alliance between enterprises, and establishing a cooperative investment management system internally. Through this research, it provides theoretical support for the real operation of enterprises.

## Keywords

Venture Capital Enterprises, Comprehensive Management Model, Institutional Innovation, Value Chain

## 1. Introduction

Venture capital is a new investment form that integrates capital, technology, and management art. Since it was born in the United States in 1946, it has been playing an important and special role in the process of high-tech industrialization. Many countries call it the “engine” of economic growth, and former British Prime Minister Margaret Thatcher once said that the reason why the British economy is

lagging behind that of the United States is not because of the backwardness of its economic system, but because of the backwardness of the venture capital mechanism. W. F. Miller, director of the Stanford Research Institute, pointed out that “the participation of venture capital in the early stages of scientific research has shortened the cycle of transforming scientific research results into commodities from 20 years to less than 10 years”. In particular, the rapid emergence of the “Silicon Valley” in the United States, the center and birthplace of modern information technology, and the Route 128 industrial zone in Boston are inextricably linked to the participation of venture capital. Business giants such as DEC, Apple, IBM, Microsoft, INTEL, Compaq, Cisco, etc. have invariably left the footprints of venture capital investment on their road to success. Stimulated by the successful experience of the United States, venture capital developed rapidly in countries around the world in the late 1980s.

Since the 21st century, some obvious changes have taken place in the international venture capital industry. Investors always invest in the later stage of products to reduce risks. This has enabled a large number of high-tech enterprises to be “incubated” and developed in a short period (Bak, 2023). With the continuous venture capital investment, venture capital and emerging markets also carry out a rapid interactive cycle between venture capital and emerging markets, venture capital through emerging markets to profit, and emerging markets through venture capital support to achieve extraordinary development, leading to the capital market “fire” and the formation of the bubble economy (Chen & Su, 2023). Therefore, more theoretical researchers have begun to pay attention to the causes and consequences of the shift in the stage of venture capital, especially the relationship between the new economic bubble and the shift in the stage of venture capital. In the past few years, investors in the venture capital industry always invested in the later stage of products to reduce risks, which leads to the fact that venture enterprises not only need a technology platform, but also need to transform technology into products in the first and second stages to get support (Chen, 2021). This change in venture capitalists can be explained by imitation isomorphism and standardization isomorphism of institutional theory. Imitation isomorphism focuses on the experience background of venture capitalists, while standardization isomorphism focuses on the educational background of venture capitalists.

The status quo of the comprehensive management model of venture-capitalized commercial enterprises and the choice of their innovation paths are becoming a focal issue of common concern in theoretical and business circles. Therefore, given the current market changes, this study will explore the comprehensive management model and innovation system of venture capital commercial enterprises. Investigate the innovation path choice of venture capital commercial enterprises from a comprehensive perspective. Only a small number of research business model innovation path in the literature, the research are only one dimension to examine the business model innovation path, this study will be a comprehensive

multiple perspectives to build a business model innovation deconstruction model, analyze the necessity of the research on the comprehensive model innovation of venture capital class business, and lay the foundation for the proposal of entrepreneurial enterprise business model innovation path.

## **2. An Exploration of the Integrated Management Model of Venture-Based Business Enterprises**

For a venture capital business enterprise, in today's rapid development of science and technology, solving problems on one's own is not only technically difficult, but also economically inefficient, so it is necessary to make full use of the advantages of resources in all aspects and realize the complementarity of resources. The core of making a comprehensive management model is to break through the administrative organization boundaries of enterprises, expand the scope of enterprise resource optimization, and accelerate their development. However, there are some corresponding problems in the operation of this management model, which need to be optimized and improved urgently. To ensure that the optimization results of this study have practical value, the management model is defined and the application status is analyzed. Venture capital means "taking risks in order to get due investment benefits". Venture capital is defined as "taking risks by professional investment media, investing capital in promising companies or projects, and increasing the added value of their investment capital". The traditional venture capital investment targets are mainly small enterprises that are in the initial stage or early stage of development but grow rapidly, and mainly focus on those high-tech industries with development potential (Yue, 2023). Venture capital, usually in the form of partial equity participation, is strongly characterized as "risk-taking", and the reward for high investment risk is the opportunity for high returns in the medium to long term. Venture capital is an integral part of investment, and is similar to commercial banking in that venture capitalists, like bankers, act as mediators and conduits between investors (e.g. lenders) and entrepreneurs (or borrowers). But unlike commercial bank lending, bankers are always risk-averse, whereas venture capitalists try to manage risk. Banks always ask borrowers for property mortgages before lending, while venture capitalists will invest capital once they see that a company or project has potential, and they will also help the company they invest in to operate and manage. Therefore, for those small companies, especially those in the initial stage, after accepting venture capital, investors will bring them not only money, but also more important resources such as strategic decision-making, technical evaluation, market analysis, risk and recovery evaluation and helping to recruit management talents. Venture capital is not only a kind of capital invested in the dissemination of innovation, but more importantly, it is a collection of a series of investment methods, which brings together a series of analytical methods, such as project analysis, technological analysis, business analysis, market analysis, psychoanalysis, value analysis, and so on.

## 2.1. Definition of the Management Model of a Venture Capital Business Enterprise

To better complete the subsequent analysis process, the first step is to complete the definition of the management model of venture capital business enterprises. After reviewing a large amount of literature, the management model of venture capital business enterprises was organized as follows (Kozłowska et al., 2022):

1) It refers to a management model of commercial investment behavior that invests funds in high-technology development fields that carry a high risk of failure, to obtain high capital gains after success. The essence is that by investing in a group of high-risk, high-return projects and selling or listing the successful ones among them to realize the realization of the owner's equity, thus not only making up for the loss of the failed projects but also enabling the investor to obtain a high return.

2) It refers to the micro-management level of the business behavior of venture capital enterprises, both through management, rational organization of business operations, and striving to use the smallest labor consumption, to achieve the best economic efficiency, maximize profits, and constantly improve the market positioning of the enterprise.

3) It refers to the organizational system of venture capital business enterprise management. It includes the organizational form of business management, the setting up of management institutions, the information transmission system, the distribution of benefits, and the guarantee mechanism.

## 2.2. Analysis of the Current Situation of the Integrated Management Model of Venture Capital Business Enterprises

The process of business model innovation is also affected by many factors, so this paper first analyzes business model innovation from the perspective of each influencing factor. This study analyzes the influencing factors of business model innovation of venture capital enterprises from both macro and micro dimensions. The factors affecting the optimization of the venture capital business model are shown in **Table 1** (Li, 2021).

The innovation of the business model is mainly reflected in the innovation of customer value and cost structure. The market pressures faced by enterprises at different stages have changed in terms of pressure forms and sources. This discontinuous change in the external environment leads to the fact that the original business model of the enterprise can not adapt to the environment well, which urges the enterprise to seek new logic to carry out its business, that is, to reconstruct the old business model. The enterprise value chain does not exist in isolation, the entire industry in which the enterprise is located can be viewed as a chain that generates value. It is a "value system" consisting of the supplier value chain, the enterprise value chain, the channel value chain, and the customer value chain. The customer value proposition recognizes the utility of the business to the consumer. The profitability model consists of four elements: the revenue

**Table 1.** Venture capital type business model optimization influencing factors.

Angle of analysis	Considerations	Clarification
Macroeconomics	Market globalization factors	Discontinuous changes in market pressures and redundancies in technological capabilities have led firms to reconfigure their business models.
	Development of Internet technology	Internet technology has changed the structure of the value chain changes, which leads to changes in the cost structure of the enterprise (business unit).
	Industrial value chain	Industry boundaries and industry value chains all have an impact on business development.
Sub-atomic	Customer value proposition	Refers to the value that a firm can provide to consumers through its products/services.
	Profit model	A profitability model is a detailed plan for how a company can both provide value to its customers and create value for itself.
	Enterprise profitability resources	Resources are the key elements that can create value for customers and organizations. These elements interact with each other.
	Forms of business organization	The form of organization of the enterprise determines the process of carrying out business activities of the enterprise.
	Enterprise operation process	Make the customer value proposition delivery method repeatable and scalable.

model, the cost structure, the profit model, and the speed of resource conversion of a venture capital firm. The following section analyzes the current status of the integrated management model based on **Table 1**, starting from the actual business model of the enterprise.

#### 1) Organizational form dominated by a single corporate system

The literature shows that there are three main forms of the legal organization of venture capital firms: 1) corporate, 2) trust fund, and 3) limited partnership. Among them, the limited partnership system dominates. At present, there is no legal basis for trust funds and limited partnerships in China, so venture capital companies (or funds) with trust funds and limited partnerships have not yet formed. At present, the organizational form of venture capital in China can only be corporate, and the investment methods are mainly credit and credit guarantee, with less equity investment.

#### 2) Trend of moving backward in the investment stage

The purpose of developing venture capital is to support commercial enterprises in the initial stage and growth stage and to promote the commercialization, industrialization, and large-scale application of various venture capital commercial enterprises. However, due to the systemic defects of the organizational form of government agency-affiliated venture capital enterprises and the influence of the

development trend of international venture capital since the 1990s, the investment stage of China's venture capital has also shown a tendency to move backward, with the mid- to late-stage becoming the area where a large number of venture capital investments are concentrated.

3) Inadequate environment for the application of the integrated management system for venture capital business enterprises

The integrated management system of venture capital commercial enterprises is a new management system when the market economy is highly developed, so it needs a good socio-economic environment and legal environment. However, from the current situation, the development of the integrated management system of venture capital commercial enterprises is still in the pilot stage, its development is still in a spontaneous state, and it has not yet formed a good application environment. The development planning, policies, and regulations of enterprises are still blank. At the same time, the intermediaries in the capital market are seldom engaged in business related to venture capital, and society has not fully recognized the main influence of intermediaries on the development of venture capital. The intermediaries themselves are also seriously affected in the development of venture capital business due to their unsound system and unstandardized operation.

4) Poor environment for innovation in enterprise innovation management model innovation

Model innovation is not an isolated activity of an enterprise, but a process of co-evolution of the enterprise with the external environment and competitors. Venture capital is a new form of investment and financing in a highly developed market economy, and therefore requires a favorable socio-economic and legal environment. Generally speaking, business model innovation is influenced by both external and internal environmental factors. Among them, external environmental factors mainly include technical driving factors, market factors, institutional factors, and ecological network factors. The internal environmental factors mainly include entrepreneurs' cognition, organizational management, and resource capacity. The problems of imperfect market systems, unbalanced market development, and imperfect market mechanisms are still outstanding, which hinder the healthy development of venture capital.

The above content fully reflects the problems existing in the current application of the current integrated management model of venture capital business enterprises, and this research will propose a new integrated management model based on the above content.

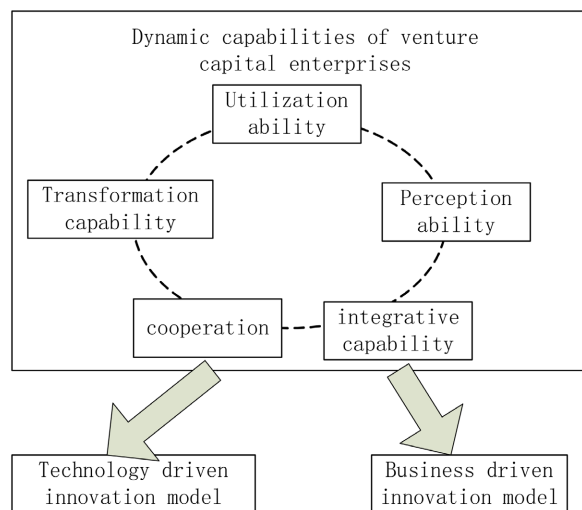
### **2.3. Optimization of Enterprise Comprehensive Management Model**

Business model innovation optimization is a complex system engineering and a dynamic process. Dynamic capability is a multi-dimensional concept, and different combinations of dynamic capabilities represent different path choices for

enterprise business model optimization. **Figure 1** shows the schematic diagram of the corresponding matching relationship between dynamic capabilities and the optimization path of enterprise comprehensive management model optimization. According to the decision model of venture capital based on grey prediction published by Hu Qinglai in 2008, the corresponding matching relationship between the dynamic ability of enterprise comprehensive management model optimization and the optimization path is obtained, as shown in **Figure 1**.

The important purpose of enterprise management model innovation and optimization is to build competitive advantage, therefore, the change of the competitive environment in the industry is an important driving force that prompts enterprises to use digital technology for business model innovation. Enterprises are more willing to innovate their business models when they perceive market threats than when they perceive market opportunities. In addition, meeting new market demand or developing new customer groups is the main driving force of enterprise business model innovation. The business objectives of different stages of an enterprise will guide the innovation of its business model in a specific direction. In the specific process of business model innovation, the organizational structure of enterprises will affect the strategic sensitivity and flexibility of enterprises, which determines whether enterprises can quickly respond to external environmental changes through business model innovation.

Therefore, according to **Figure 1**, this paper tends to divide the dynamic capability dimensions of management model optimization into a generalization of the underlying abstract capabilities of the enterprise, with a tendency to expand from the behavioral dimension of the enterprise to the cognitive dimension of the organization. It includes such refined dimensions as perception capability, utilization capability, transformation capability, learning capability, absorption capability, and innovation capability. All normally functioning enterprises have



**Figure 1.** Schematic diagram of dynamic capacity and optimization path matching for management model optimization.

their business models. For a business, the first thing to figure out is what are the reasons why customers choose the products/services offered by that business. This requires the business to clarify the customer value proposition and its variations (Lin, 2023). Otherwise, there is no way to talk about business model innovation. After defining the value propositions of both customers and enterprises, the company must consider the resources and capabilities needed to convey these values. There are two ways for enterprises to gain a certain competitive advantage in the market: first, by entering the niche markets that mature enterprises think are not worth doing or cannot do because of the high cost, or even entering the markets that mature enterprises have not yet discovered, and avoiding direct competition with large enterprises, they will have the opportunity to gain long-term survival and development opportunities based on niche markets or blue ocean markets; Second, cooperate with mature enterprises to develop with the help of their resources and capabilities to a certain extent. Enterprises need to have some unique competitive tools. One of the important ways is to carry out the innovation of profit model, such as relying on the Internet to realize the innovation of payment methods, etc., and constantly change the competitive perspective and take the initiative to avoid direct competition with mature enterprises as far as possible.

In addition to the optimization of the enterprise management model, the enterprise system also needs to be innovative, to meet the needs of customers and truly realize the development and growth of the enterprise.

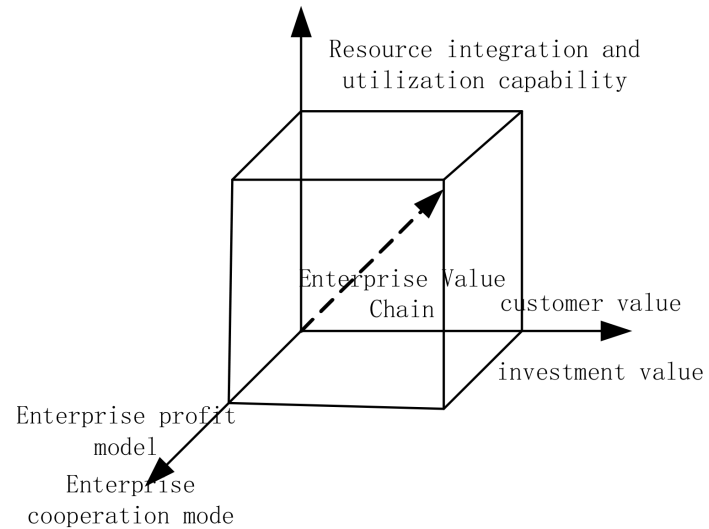
### **3. Venture-Based Business Enterprise Innovation System**

#### **3.1. Renewal of the Enterprise's Value Chain**

According to Michael Porter, the value chain of any business consists of a series of interrelated value-creating activities. According to the "value chain analysis" proposed by Michael Porter, the value activities of an enterprise include two categories: basic activities and auxiliary activities. The basic activities are composed of five parts: internal logistics, production operations, external logistics, marketing, and sales and services; and the auxiliary activities include enterprise infrastructure, human resource management, technology development, and procurement. This paper updates the value chain of the enterprise from the four dimensions shown in **Figure 2**, based on the special characteristics of venture capital enterprises, combined with the optimization analysis of the enterprise management model.

A market-oriented technology transformation mechanism should be formed when updating the capabilities of enterprises. To form a market-oriented technology transformation mechanism, it is necessary to strengthen the protection of technological innovation results and corresponding intellectual property rights, to standardize and improve the rules of the technology property market and technology transactions, and to set up and improve a market-oriented technology value assessment and measurement system, as well as an information network





**Figure 2.** Schematic diagram of the updated dimensions of the enterprise value chain.

for technology transactions, and so on.

### 3.2. Cultivating a Perfect Venture Capital Service System

The government should strengthen the infrastructure construction of technological innovation, such as the division of labor system, education, and training system, and information dissemination system, strengthen the government's guidance and support for technological innovation and technology transformation that directly meet market demand, provide assistance and other indirect support for applied technological innovation, especially enterprise technological innovation, and further improve the government procurement policies in related fields (Yan et al., 2023).

The development of venture-capitalized business enterprises is inseparable from a sound intermediary service system. To this end, the following intermediary service institutions should be vigorously cultivated and supported at this stage: 1) Standard certification institutions that appraise the technological advancement of innovative enterprises; 2) Intellectual property valuation institutions that provide a scientific basis for the proportion of equity accounted for by scientific and technological achievements or intangible assets in an enterprise; 3) Market potential assessment institutions that evaluate the progress of the industrialization of evaluated projects, the level of profitability, the product's life-cycle, and the direction of improvement. Survey agency; 4) The supervisory agency that provides consultation, counseling, and supervision on the management, investment activities, financial operation, system construction, and development planning of enterprises (especially those ready to be listed and listed companies), accepts the consulting commissions from relevant supervisory authorities, stock exchanges, investors and other institutions and individuals, and assumes joint and several responsibilities when problems arise in listed companies; 5) Provide pre-listing services for enterprises applying for listing and

post-listing services for enterprises applying for listing Listing sponsors that provide pre-listing services and after-listing services such as after-market maintenance, merger or anti-merger decision-making consulting, etc.; 6) Financing guarantee companies and other professional financing guarantee institutions that provide specialized financing services for venture capital institutions and high-tech enterprises; 7) Venture capital industry associations that carry out supervisory and self-regulatory functions.

### 3.3. Forming Strategic Alliances between Enterprises

The potential strategic alliance objects of venture capital enterprises can be divided into two categories: one is vertical alliance objects, that is, venture capital suppliers and high-tech venture enterprises in the venture capital chain, and the other is horizontal alliance objects, including other venture capital enterprises in the industry, intermediary service institutions, universities and scientific research institutions, foreign enterprises, industrial enterprises in related high-tech fields, and so on. The closest form of cooperation is the establishment of a joint venture, followed by a joint goal through a cooperation agreement. The most common and loose form is to maintain specific information exchange and form a network mechanism for information sharing. When a venture capital firm finds a promising investment project, it usually does not decide to invest in it right away but passes the project proposal to another venture capital firm for review. If this other venture capital firm is also interested in investing, it will prompt the original venture capital firm to make an investment decision.

Alliances between venture capital firms and intermediaries can also be formed. Intermediaries play an increasingly important role in the modern venture capital industry: on the one hand, they organically connect the three main bodies of the venture capital system, and on the other hand, they play a lubricating role in the operation of the system. The alliance with reputable intermediaries reflects the requirements of strong cooperation and complementary advantages, and venture capital enterprises can obtain valuable information and professional services from their partners. Intermediaries with different capabilities may have a significant impact on the returns of VC firms.

Geometric strategic alliances are based on specific goals, which are often associated with market opportunities. The difference in market opportunities will determine whether venture capital enterprises achieve their goals through internal efforts or strategic alliance cooperation. The starting point for finding a partner is to consider the strengths and weaknesses of the advantages it possesses; the more complementary the advantages are to the enterprise, the more powerful they are for its development, but taking into account the needs of the other party, as well as the differences in corporate cultures, management styles, employee work styles, and the mutual integration of the enterprises is also an important factor.

### 3.4. Establishment of a Cooperative Investment Management System

Venture entrepreneurs and venture capitalists, as rational people, must choose each other to maximize their benefits, i.e. venture entrepreneurs should choose venture capitalists that have strength and are very proficient in the industry. Venture capitalists, on the other hand, should choose venture entrepreneurs with good character, innovative ideas, and the pursuit of success. In the case of the two cooperating and giving full play to their talents, collective rationality can be gained to make the company's performance outstanding (Zhang, 2022).

Both sides can get high returns. Venture capitalists and venture entrepreneurs can improve their understanding of each other and reduce all kinds of prejudices caused by knowledge differences and mutual distrust by improving the frequency and quality of communication. In order to promote the adoption of cooperative behavioral strategies by distrustful players, it is an effective way to increase the cost of non-cooperative strategies by designing the transaction structure between the two parties. For example, setting venture entrepreneurs to provide venture capitalists with anti-equity dilution clauses, self-penalty clauses, non-competition clauses, etc., can also be used to benefit the role of the compensation mechanism. The amount paid to the venture entrepreneur by the interest compensation mechanism is lower than the market price of the other part of the company in the form of ownership, the non-cooperative behavior of the venture entrepreneur will affect the value of the enterprise and thus affect their income in the form of equity.

Through the above four aspects of the venture capital business enterprise system innovation, can realize the good development of the enterprise, to obtain greater corporate interests.

### 4. Concluding Remarks

The change in the venture capital industry is due to the change in venture capital practitioners. The experience of current venture capitalists in investment activities is very different from that of venture capitalists in the 20th century, because of the change of the nature of the venture capital industry itself. Venture capital in China, despite its early start, is still only in the initial stage, and there are still many aspects of the problem that need to be solved. In this paper, the current situation of the comprehensive management model of venture capital business enterprises is analyzed to explore the optimization of the management model, and combined with the characteristics of the enterprise from the value chain, the management system of the enterprise has been innovated. However, the studies in this paper are all theoretical and failed to be proved by empirical evidence, and the theoretical studies also have certain limitations, which hopefully will be argued in future studies and increase the research constraints. In the future, further in-depth research will be conducted on the operation mechanism of venture capital commercial enterprises, to provide a higher level of theoretical assistance

for the development of enterprises.

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

### References

- Bak, S. (2023). The Embedment of Risk Management in Enterprise Management System. *International Journal of Contemporary Management*, 59, 1-16. <https://doi.org/10.2478/ijcm-2022-0014>
- Chen, D. Q. (2021). Social Network Embeddedness, Venture Capital Syndication and Enterprise Innovation Efficiency. *Economic Research Journal*, 56, 67-83.
- Chen, H., & Su, W. S. (2023). Innovation and Application of Enterprise's Supply Chain Management Mode under the Background of Industry 4.0. *International Journal of Technology Management*, 91, 19-38. <https://doi.org/10.1504/IJTM.2023.127855>
- Kozłowska, J., Benvenga, M. A., & Nääs, I. A. (2022). Investment Risk and Energy Security Assessment of European Union Countries Using Multicriteria Analysis. *Energies*, 16, Article 330. <https://doi.org/10.3390/en16010330>
- Li, M. Y. (2021). Venture Capital, Innovation Output Quality and Enterprise Performance—Based on the Adjustment Role of Regional Institutional Environment. *Science Research Management*, 42, 168-175.
- Lin, Y. X. (2023). Analysis of the Industrial Investment and Supervision Management Model of State Owned Enterprises under Dual Drivers. *Investment and Entrepreneurship*, 34, 10-12.
- Yan, W., Xiong, Y. Y., Gu, A. W., Lu, H., & Zhang, X. X. (2023). Digital Technology and Enterprise Knowledge Management: Literature Review and Theoretical Framework Construction. *Asia Pacific Business Review*, 29, 931-949. <https://doi.org/10.1080/13602381.2023.2197394>
- Yue, J. P. (2023). A Deep Learning Method for Intelligent Decision-Making in Enterprise Management Based on the Internet of Things. *Journal of Computational Methods in Sciences and Engineering*, 23, 617-627. <https://doi.org/10.3233/JCM-226613>
- Zhang, X. Y. (2022). Research on Cost Control and Management of Construction Enterprise Investment Projects under PPP Mode. *Engineering Technology Research*, 7, 144-146.