Research Article

EM Algorithm-Based Enterprise Digital Transformation: Green Innovation Efficiency of Enterprise Investment

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The digital transformation of manufacturing industry refers to the integration and application of the new generation of information technology in the field of manufacturing in the context of the current digital economy development. Architecture is the foundation of the real economy, which is closely related to digital chemistry and industrial digitalization. On the one hand, high-tech manufacturing of digital information products such as terminal equipment, smart equipment, electronic components, and integrated circuits is the material basis of digital chemical industry. It is a product of traditional manufacturing, blockchain, and artificial intelligence. On the other hand, digital technologies such as simulation technology are the core of the development of manufacturing, the key to achieving precise market positioning, expanding product functions, and improving product quality and added value. Digital technology is an intellectual industry. From the perspective of investment returns, the investment behavior of enterprises is manifested as effective investment and invalid investment. If the capital cost during the investment process is lower than the company’s income, the company will not increase the investment amount for any reason, so it will not receive enough investment. Due to the low threshold of investment income, investment growth exceeding a certain threshold will actually reduce investment income and lead to excessive investment. In this context, this article studies the digital transformation of corporate enterprises based on algorithms: green innovation in investment efficiency organizations. This article deeply studies the status quo and the advantages of green innovation investment in digital technology and puts forward corresponding suggestions.

1. Introduction

With the development of the modern organization system, corporate governance is an important factor affecting enterprise investment performance. The level of company governance is an inevitable issue in the background of the company’s financial disputes, and it is also one of the core issues of the majority of scholars’ research [1]. The foundation of the company’s governance is that there are appropriate mechanisms, regulatory, and supervision of the company’s system, so that the management level can fully fulfill its decentralized duties and handle matters of relevant institutions and institutions. Therefore, the level of company governance affects investment policies and investment management efficiency [2]. This article summarizes factors such as the company’s equity structure, board management, and equity incentives. In the context of my country’s industrial transformation and company’s financial constraints, the impact of research on the impact of company governance on important industries in strategic industries has certain theoretical value and practical significance.

My country’s modern enterprise system is established late, and most enterprises have low investment returns and low resource allocation efficiency [3]. The level of corporate governance is important to the effectiveness of the company’s investment. Many thinkers also examined the impact of corporate governance on the company’s investment performance from the aspects of decision-making, directors’ decision-making ability, fair nature, and decentralization of power [4]. This article analyzes the relationship between corporate governance structure, financial constraints, and company investment performance from the perspective of corporate orientation. Combined with the characteristics of China’s emerging strategic company and the capital market,
it reveals the connection between corporate governance structure, financial constraints, and company investment performance. In addition, the theory has also derived the role of the theory in solving the strategic issues of emerging industries and restricting the financing channels of SMEs. The efficiency of corporate governance, fiscal constraints, and strategic and emerging departments has improved [5].

Strategic emerging industries are an important support for promoting my country’s social and economic development, and it is also an important support for maintaining national technological security. On the basis of empirical analysis, you can understand the insufficient investment in my country’s emerging and forward-looking strategic industries [6]. The improvement of the company’s governance, the significant improvement of the company’s investment efficiency, and the impact of financial constraints on decentralized management can promote the improvement of the company’s investment decision-making and management. However, fiscal tightening can directly improve the company’s investment efficiency without having to bear risk. This is also very good. Directly restrict the company’s over-investment. The conclusion of this article reflects the current situation of the investment benefits of strategic industries and emerging industries. In response to the status quo of my country’s capital market, suggestions to improve corporate governance, reduce financial constraints, and improve the investment efficiency of emerging strategic industries have certain practical value.

2. Research Background

With the end of the planned economy and the continuous advancement of reform and opening up, the development of Chinese enterprises is in full swing. Entrepreneurs have found that with the continuous expansion of the scale and number of enterprises, the traditional family management model can no longer meet the needs of enterprise development, and human resources managers have become the best choice for entrepreneurs [7]. However, if the enterprise develops to a certain degree, its owner will no longer be able to effectively and comprehensively control the decision-making of the senior managers they hired. In particular, the employed managers are directly related to the production and operation of the enterprise. They know more about the business and financial conditions of the enterprise than the business owner, which will lead to information asymmetry. The owner and the manager have their own interests [8]. The conflict of interest has led to serious factors. Therefore, it is an opportunity to introduce corporate governance theory to the organizational management of my country. There are many elements of company governance. Domestic and foreign scholars have different evaluations and definitions of corporate governance. Corporate governance is a means to protect the interests of shareholders. The starting point and goal of the company’s governance are the basic elements of the company’s governance [9]. In addition, the owner and creditors should be considered the form and method of raising funds for the company to ensure that the actual directors and their interests can be merged. Ensure that commercial decisions take into account the company’s maximum interests, and ensure that operators will not invest in low-efficiency resources for the company’s interests without pursuing their own interests [10]. Poor limbs believe that the code of behavior of economic organization operators, owners, and directors is an integral part of corporate governance and has different evaluation methods and evaluation standards. Corporate governance is usually called internal management. The basic elements of corporate governance are equity structure, board relationship, and company incentives. Enterprise digital growth trend is shown in Figure 1.

3. Materials and Methods

3.1. Basic Theory

3.1.1. Digital Transformation of Enterprises. The digital economy is based on the data economy. As an important part of the information industry, data will run through the entire process of the information industry and generate information and services from different countries. The digital process is the process of storing and developing data through the new generation of information technology. The digital economy is the new economy form of digital knowledge and information as new production activities, digital technology tools, and information networks [11]. The digital process is shown in Figure 2.

According to data from the National Bureau of Statistics, the digital economy is characterized by the digital economy. The first four elements are digital manufacturing, service industry, technical conditions, and latest trends [12]. The digital industry is the best digital activity. It is the index income from traditional industries. It is the best production and operation and coordinated development of traditional industries.

The transformation of digital products provides opportunities for the transformation and application of the new generation of information technology in the digital economy. The manufacturing industry in the real economy is digital [13]. On the one hand, manufacturing technology is better than digital-related products such as terminal equipment, smart equipment, electronic components, and interconnection, and supports data from the digital industry. On the other hand, traditional equipment uses digital technology, such as chain blocks, design information, simulation technology, production activities, market access, increasing production activities, and improving product quality and cost. Other digital production methods show that the production and design of these two fields have changed in the digital field.

The industrial structure refers to the interconnection and interaction between production factors under certain socioeconomic conditions and resource conditions, the continuous changes of the industrial level, and the continuous evolution of the industry. It changed production activities, and eventually Western scientists developed the theory of industrial structure through research on
developing countries. British scientist Clark pointed out that with the improvement of productivity, income attracts people into the second industry at a price higher than any capital [14]. With the increase of per capita income, the level of departmental population is also changing. On this basis, the emperors of all ages have gradually formed three major industrial development rules. German scientist Hofman designed industrial development and divided it into different stages. In the first stage of the automotive industry, when the car started to change, the company was still the first. The light industry has led to the growth of the middle manufacturing industry on the basis of the gradual development of enterprises. At the end of the industrial stage, the significant return of technological progress and industrial structure is the most important factor. In technological expansion, American scientists have called for a large industry through learning and innovation, scientific data collection, human capital collection and innovation, and developing ideas on the basis of the theory of invalid economic growth [15]. In the future, the technology and service industry will dominate. In the process of industrialization, a higher legal structure has been established from bottom to top. There are many sources of industrial technology. With the rise of the intellectual industry, many industries attach importance to the industry to become higher and higher. Yeah, I know. Compared with Western industrialized countries, my country is an industrialized country, and the concentration of investment and technology is unpleasant. The development of advanced technologies is affected by the technology of foreign monopoly enterprises in the global value chain for a long time. Based on the theory of industrial structure and digital growth, the digital industry transformation, digital industry production services, and digital industry development have been accelerated. Change the success of the industry, revitalize the economy, and expand the market boundary.

3.1.2. Enterprise Investment Efficiency. Investment is an economic activity. In order to increase the added value, people engaged in economic activities invested a certain
amount of money or natural income. From the perspective of investment returns, the company's investment behavior has two consequences. One is effective investment, and the other is inefficient investment. If the investment cost is lower than the company's income, the company will not increase investment for any reason, resulting in insufficient investment. As the marginal income of investment will decrease when exceeding a certain limit, investment growth will actually reduce returns, resulting in too much investment [16].

Each company has different characteristics, different business environments, and different investment opportunities in different industries, different market environments, and different companies. Therefore, comprehensive coverage and investment positioning are the test of operators' management level. On the other hand, the investor's investment can also be determined by its own interests. Therefore, investment efficiency also reflects the management level of entrepreneurs [17]. The constraints of investment efficiency are shown in Figure 3.

In the modern organization system, the company has independent rights. In addition, the control of shareholders is consistent with the right to cash flow. The major shareholders can take action for their own interests to harm the interests of other small shareholders. The interests of a small number of shareholders have been ignored by most shareholders and are “improper.” A research team at the University of Cambridge confirmed the direct connection between corporate governance and company investment performance. If the company does not run well, the business value will be low [18]. The participation of foreign institutions can improve the corporate governance level of foreign institutions. It can supervise the governance of the company and restrict the self-discipline of major shareholders to a certain extent. If the shareholders' shares increase, the interests of shareholders should be consistent with the interests of the company. An empirical study of a research institution in Ukraine's governance and investment efficiency of the company shows that the expansion of the board of directors can improve the transparency of the company's information and reduce the asymmetric supply and demand in the company's financing process [19]. To a certain extent, reducing the sensitivity of financial constraints and operating cash flow can enable enterprises to make reasonable investment decisions and improve investment efficiency. In the study of the performance of corporate governance and investment organization, a Russian research institution pointed out that the type of stock is an important factor affecting the company's investment performance [20]. The higher the concentration of state-owned enterprises, the lower the investment efficiency. When a company tries to improve investment efficiency, it can effectively use incentive measures to maintain the management of management and business goals. Remuneration incentive combines management advantages with corporate performance, reducing inefficient investment driven by personal interests. This study found that increasing the number of managers can reduce bank risks.

Internal scholars have also studied stock management to strengthen the company's system, prevent shareholders' monopoly, prevent the interests of major shareholders from being affected by the interests of small shareholders, and promote mutual supervision between shareholders. Organize investment decisions to improve the company's investment efficiency. Some scholars emphasize the efficiency of enterprise investment and believe that different corporate property rights relations and the interaction between enterprises and the government have exacerbated the political background of high-level corruption and led to low investment efficiency. Researchers at the University of Science and Technology of China have found that due to their unbalanced ownership, the investment efficiency of state-owned enterprises is lower than nongovernmental organizations. This is because state-owned enterprises have obtained the government's financial approval, and financial institutions have poor supervision. Low financing costs mainly lead to excessive investment. China Electric Power Securities found that the participation of institutional investors can reduce the invalid investment behavior of the enterprise. Investment projects of institutional investors are usually relatively stable income projects, which determines the frequency of institutional investors' excessive investment. In addition, institutional investor groups can provide scientific basis for corporate investment decisions.

If the company's system arrangement can reduce the cost of information symmetry, investment efficiency will be improved. Many scholars believe that the higher the level of the company's governance, the more complete the structure, the higher the resource allocation and investment efficiency.

3.2. EM Algorithm Research Method. The unknown parameter of the life density distribution function was calculated using the parameter estimation method. The decomposition data of some long-term product samples often reach the threshold and often lose, which makes it difficult to estimate the model parameter. The EM algorithm is a correct way to maximize experiments by a group of external researchers. The EM algorithm can calculate the maximum possible potential distribution parameter based on limited lack of observation data. Studies have shown that the management of management on the controlling shareholders has decreased, and the proportion of controlling shareholders has increased. The ability to control major shareholders must be affected by the decision-making power of organizational management. Rights are violated, and decision-making is often influenced by major shareholders. The positive and effective decision-making based on the overall interests of the enterprise makes it difficult to achieve the institutional investment at the investment level. Many thinkers in this country also come to different conclusions of different industries. Some researchers believe that a certain equity concentration has a positive effect on reducing invalid investment.

Set \((\Omega, \zeta, \mathcal{P})\) a conceptual space that \(x\) involves the collection of all walking variables in the space. Risk
measurement is $\rho$ a mapping of $x \times \rho_x$, subset to $R$ real number, which is recorded as $\rho$: $X \in \rho \rightarrow \rho(X) \in R$.

First $g$ defines the $g$: $[0,1] \rightarrow [0,1]$ function called the distortionFunction. $g(0) = 0, g(1) = 1$.

Secondly define risk measurement: often $\rho_g$: $x \rightarrow R$ referred to as distortion risk measurement, if it $\rho_g(X)$ is satisfied.

$$\rho_g(X) := \int_{-\infty}^{0} \lg(S_X(x)) - 1)dx + \int_{0}^{\infty} g(S_X(x))dx, X \in x.$$  \hspace{1cm} (1)

This $g$ is a distorted $S_X(x) = P(X>x)$ function, $X$ which is distributed.

Suppose $X$ is the total risk faced by the $f$: $[0,\infty] \rightarrow [0,\infty)$ insurer, and it is $f(X)$ the division function, which represents the insurer to transfer some of the risks they face to the re-insured. The insurer collects insurance costs from the insurer because of the risk of the insurer to supplement the risks they bear. This article assumes that the re-insurance cost standards have the following form:

$$\mu_r(f(X)) = \int_{0}^{\infty} r(S_f(x))dx.$$  \hspace{1cm} (2)

Among $S_f(x)$, $f(X)$ is the tail distribution $r$: $[0,\infty] \rightarrow [0,\infty]$ is a monotonous nonreduction $r(0) = 0$ function. Without losing generality, we assume $r$ that it is not a function that is almost zero everywhere. The total risk of an insurer is to face the surplus risk we will face and the cost of transfer risk. It can be expressed as

$$T_f(X) = X - f(X) + \mu_r(f(X)).$$  \hspace{1cm} (3)

The EM algorithm is composed of E step and M steps. Stepping Em is looking for expectations. Step M will expect to be greatly expected. Two steps are alternated until convergence. The specific steps of the EM algorithm are shown in Figure 4.

4. Results and Discussions

4.1. Digital Transformation Status Quo. This chapter analyzes the status and challenges of digital transformation of China’s manufacturing industry from the perspective of the entire manufacturing and key industries. This article summarizes the main content of modern digital policies in China’s manufacturing industry, analyzes related family expenditures, analyzes the problems of family expenditure policies, and tries to analyze the reasons.

4.1.1. Digital Transformation and Difficulties in Chinese Enterprises. In recent years, my country has actively
explored and practiced the digital transformation of the manufacturing industry and has gradually made certain progress. From the simple combination of primary production process and the Internet, it is convenient, fast, flexible, mobile, and intelligent, and other technologies achieve new technologies and corporate value chains. From 2013 to 2020, the development level of the national manufacturing and Internet integration is shown in Figure 5.

From the perspective of the entire manufacturing industry, the integration of the construction industry and the Internet is still a good trend. In 2020, the integration rate of the two major industries reached 56, an increase of 20% over 2013, reflecting the continuous attention and promotion of the Chinese government’s development of the digital industry. At the same time, production itself has strong digital potential. 2016 is the beginning of the “Thirteenth Five-Year Plan,” and the fusion growth of the two major industries has slowed significantly. At the same time, the manufacturing industry will gradually eliminate the decline in energy production, accelerate technological transformation, increase the number of aircraft, and achieve diversified quality. The integration of these two forms has been enhanced to the depth of digital and intelligent. During the production process, the numerical control rate of the core process in 2020 reached 51.1%, an average annual increase of 2.8%; it is expected to reach 71.5%. We will use digital transformation to offset the impact of excess production and return to growth. In the process of digital production, new products, new technologies, and new forms have entered the world, and economic development has entered a new stage.

According to the “China Digital Economy Development White Paper” released by the China Information and Communication Research Institute, in 2019, the scale of China’s digital industry accounts for 80.9% of the total digital economy and 31.2% of GDP support.

From the perspective of large manufacturing, the focus of digital transformation depends on the location of the production chain, different needs, and different production characteristics. From 2018 to 2020, the digitalization and intelligence of the main indicators of large-scale manufacturing are on the rise. As a traditional high-cost industry, the raw material industries are metallurgy and petrochemical emphasizing the transformation process of digital production. The main process management and digital indicators are significantly higher than the domestic industry, reducing costs and improving efficiency. The raw material industry is at the forefront of the production line. In order to effectively and timely meet the new needs of downstream enterprises, the proportion of enterprises that implement production line coordination are higher than other industries, which has improved the efficiency of intelligent production. Communication equipment, special equipment, etc., mainly meet the needs of other technical equipment industries in the industrial chain. The focus of research and digital applications is related to the status of Chinese manufacturing in the global value chain. Digital research, tool design penetration, and key business links have reached the total number of digitalization, which is much higher than the average level of other industries in the country. The focus is on consumers’ demand for food, textiles, and other consumer goods that are closely related to final consumers. The focus is on industrial chain technology, coordinating the value chain, and providing consumers with personalized, diverse products and influential enterprise share. The number of industrial e-commerce and value chain is significantly higher than the national average. From 2018 to 2020, the key indicators of digital and intelligent manufacturing industries in manufacturing are shown in Figure 6.

From 2018 to 2020, the key indicators of digitalization and intelligence in the raw material industry are shown in Figure 7.

Therefore there will be a lack of independent innovation technology. In the past, the competitive advantage of China’s manufacturing industry came from the rapid development of population growth and traditional labor-intensive manufacturing, but independent innovation and technological investment accumulated insufficient accumulation. Although China’s manufacturing industry has made significant progress in digital research and development and application, it has not yet reached a high-level technical management and digital industry. The core components, key technologies, and precision tools of advanced manufacturing technology rely on foreign imports. To accelerate the digital transformation process of China’s manufacturing industry, we need to continuously break through traditional key technologies, establish an intelligent manufacturing system, and achieve the localization and innovation of core components as soon as possible.

The coordination between people is becoming more and more complicated, and digital corporate culture needs to be improved. The lack of chips has limited the development of China’s industry. Chinese chips are locked because of design, but because of industry. Due to technology and research and development, it is difficult to achieve large-scale production. Compared with chip designers, there are fewer mechanical designers in China’s industry. Although the number of college graduates in China has increased year by year, due to the lag in the reform of the educational model to improve the skills and improvement of digital technical talents, talent dividends cannot be fully distributed. Digital transformation and middle managers have also put forward higher requirements for the comprehensive capabilities of processing enterprises. This requires the management process, organizational structure, and culture of the enterprise to convert the soft power of the enterprise into the opportunity of digital transformation. However, many companies have not yet had a concept of digital transformation. Due to the implementation of the law, it failed to transform to digital from top to bottom.

Digital transition costs high, and financing channels must be closed immediately. Manufacturing transition to digitalization is a long-term system engineering. With the implementation of digital transformation and the implementation of corporate modernization, the investment costs of digital assets and the increase in corporate governance investment are huge. However, the efficiency of reducing production costs and increasing organizational efficiency
cannot be achieved in the short term. In addition, digital transformation companies may follow other digital transformation companies, resulting in imbalances in investment indicators. In the process of digital transformation, traditional manufacturing companies have invested a lot of funds, the transformation effect is slow, and the selection of digital transformation measures is insufficient. Since 2020, my country’s manufacturing enterprises have achieved rapid growth in production supply and market structure. Many traditional manufacturing companies are small and personalized business models. The financial chain is determined to be in the short term before digital transformation. Companies would not be able to afford the excessive costs, so digital transformation is not enough. In addition, high external financing thresholds, lack of standards or consistency, and need to better obtain financing, these have brought challenges to manufacturing companies to digital and applications.

4.1.2. Promote the Arrangement of Fiscal Expenditure Policies for Digital Transformation of Manufacturing. From the perspective of government needs, funds to promote the digital transformation of manufacturing in the manufacturing industry are mainly supporting and implementing the national supply system to support innovation. On the one hand, the government encourages the government to acquire third-party digital services, such as cloud
computing and digital associations, and strengthen support for government and enterprises to establish a wider partnership in data collection and innovation alliances, promote the use of industrial software, and enhance the digital technology manufacturers’ ability. On the other hand, the purchase of new products for digital production of manufacturing is also a positive signal to the market, which helps the development and is widely used in new products and the digitalization of manufacturing.

From the perspective of organizational needs, financing has promoted the digital transformation of the manufacturing industry, mainly by increasing the company’s demand for digital consumer goods. On the one hand, explore sponsorship models such as previous logistics procurement and priority order, establish risk compensation funds, regularly promote the first large-scale process and equipment compensation pilot work, and jointly undertake costs and risks, and digital related to production enterprises. On the other hand, user subsidies, fiscal incentives, and pilot demonstration projects can enhance the digital transformation of manufacturing companies. For example, Yunnan Province has established a special fund to motivate and supplement cloud service providers to enable them to enjoy the advantages of the enterprise and stimulate its “upward cloud.”

From the perspective of market demand, China’s financial system will use supermarkets and industrial chains to accelerate the production of digital transformation. From the perspective of personal consumption, on the one hand, it is necessary to increase the proportion of residents’ life consumption and reduce their motivation for cautious consumption. On the other hand, we must increase the willingness of residents’ consumption. On the other hand, we must focus on building new infrastructure, optimize consumer infrastructure, and maintain new consumption. In terms of value chain management, funds are used to stimulate investment, and upstream and downstream companies are established in the 5G + value chain to support digitalization of industrial space, spread new crops, and develop and strengthen the domestic demand system.

From the perspective of talent training, finance supports the development of higher education and vocational education, and helps technical workers to achieve digital production. On the one hand, help universities to establish a practical teaching base, encourage scientific research and production and digital enterprises, promote integration of production, academic, and research, and ensure that digital talent training and service positions. On the other hand, human resource development subsidies are the reasons for the project to attract and implement the project aimed at improving the performance of organizational leaders. For example, Guangdong Province provides high-tech talent training scholarships and digital education funds for elites, entrepreneurs, general managers, and other entrepreneurs. Every year, Jinan City, Shandong Province, will establish a large-scale foundation dedicated to the transformation of new and old engines to create high-level issues for high-end development and invite top entrepreneurs and managers at home and abroad to study, train, and exchange well-known universities and enterprises at home and abroad. Strengthen the collective construction of enterprises.

In the public service department, the Ministry of Finance supports the development of digital transformation of digital infrastructure, digital platforms, and manufacturing. The government is working with professional companies to establish an industrial transformation fund focusing on the Internet, platforms, and security systems to provide external services and promote public exchange between government data and government data sources. Reduce the cost of rebuilding internal and external networks, using industrial assets and construction data centers. For example, Qingdao City, Shandong Province, allocates special funds for Internet industry services each year, builds the Internet industry demonstration platform, summarizes promotion experience
and practices, introduces intelligent processing services, forms intelligent production experimental lines, and gives commendation. Heilongjiang Province is building a complete Internet data exchange service platform and a state-owned SME platform, bringing new advantages to digital integration and development.

This chapter analyzes the status and existing problems of the digital industry in my country, analyzes the fiscal policy elements that reflect the supply and demand relationship, analyzes the current situation of taxation, summarizes the problems of fiscal policy, and analyzes the reasons. Financial suggestions are very important for the digital transformation of manufacturing.

4.2. Investment Efficiency Green Innovation Status Quo.
In strategic industries and emerging industries, excessive investment and investment coexistence, in most cases, are insufficient. Although financial tightening has a certain impact on excessive investment in management, it may reduce the problems caused by excessive investment transfer and institutional institutions, and it should be clear that most companies in China should encourage the development of the capital market and relax financial restrictions.

China’s capital market began in the 1980s, with stable development and huge scale. However, compared with developed countries, the characteristics of my country’s capital market are still the role of economic development and capital markets in promoting organizational development and investment. In order to continuously optimize the pyramid structure of the Shanghai Science and Technology Innovation Conference, Shenzhen Board of Directors, and Shenzhen New Board, it is necessary to continuously improve and develop multi-level board mechanisms, strengthen supervision of the registration system, and promote the continuous improvement of the legal system, such as the Chinese capital market.

Information asymmetry is an important reason for restricting corporate financing. Information asymmetric increases financing costs from abroad, making financing more difficult. Some companies violate the information disclosure law and refuse to open this system for their own interests, thereby increasing investors’ information costs and investment risks. Information disclosure can reduce information asymmetry. On the one hand, it can help strengthen corporate governance capabilities. On the other hand, the government should also implement an innovative disclosure system.

Strategic industries and emerging industries require preferential policies. The government should continue to provide preferential policies for emerging and promising strategic industries, appropriate government subsidies, tax incentives, and fiscal guarantees for good development prospects. The relationship between the company’s governance, institutional environment, financial market, and investment performance is shown in Figure 8.

Companies that lack capital usually show low domestic cash flow. According to the traditional basic element theory, CEOs often control resources, and financial constraints will reduce their attractiveness to celebrities to avoid excessive investment and overwork. The equity transfer caused by equity separation is one of the main reasons for the low investment efficiency. Capital constraints optimize the investment decision-making process and improve investment efficiency. Studies have found that external financial constraint enables enterprises to first consider internal financing, and internal financing is relatively limited. Under capital constraints, the focus of management is to improve capital allocation efficiency and optimize enterprise investment. If a company has a large amount of cash flow, it exacerbates its potential problems, and financial constraints may inhibit its over-investment. Some Chinese scholars have found that capital constraints can inhibit the invalid investment of agents and improve the research investment efficiency of enterprises. Fiscal tightening may dominate over-investment companies, but if there is no investment, it may exacerbate the investment flow of the enterprise. The impact of fiscal tightening on different scale companies is different. Increased cash flow can improve the investment efficiency of small enterprises and enhance the excessive investment tendency of large enterprises. If the company is facing financial constraints, CEO will work hard to reduce the negative impact of financial constraints by improving productivity and management level. Insufficient company funds can help management improve the efficiency of fund use.

Tax restrictions have a negative impact on investment efficiency. Scholars holding the “negative fund constraint theory” believe that external fund constraints will transfer people’s attention to organization investment and reduce corporate investment efficiency. The tightening monetary policy leads to fiscal tightening. When innovative investment depends on domestic financing, fiscal tightening is more effective (1,000 dollars). The higher the financing limit, the higher the company’s funding and investment cost. After the investment cost and deducting the present value (NPV), the company will return the investment to the company. The company lacks funds, on the one hand, due to the lack of funds, and on the other hand, it is due to the transfer of factoring agents. Studies have found that under the same capital restrictions, state-owned enterprises are more likely to be capitalized. The scale of organization is also an important factor that affects low efficiency of enterprises. Small companies often invest too little, and large companies often invest too much. Studies have found that the overall investment of cultural and creative industries is insufficient, and the budget constraints have led to insufficient flexibility of corporate financial resources and cannot provide sufficient investment. Promoting innovation requires a lot of funds. If capital constraints cannot make the investment policy achieve the expected effect, companies will not be able to adapt to market conditions in a timely manner.

4.3. Company Governance Level and Investment Efficiency Green Innovation. The level of corporate governance is determined by many factors, and these factors are not necessarily related to investment performance. In fact, the
premise of corporate governance is to maximize the interests of the company through various institutional arrangements to achieve the convergence of owners, managers, and creditors. Investment decision-making is the result of the game between owners, managers, and creditors. A good investment decision can create added value for your company. The main factors of information asymmetry cannot be resolved by regulating the legislation of the system. The negative decisions and moral risks between creditors and companies cannot be resolved through contracts and appropriate supervision. Management is always interested in investment decisions. Many thinkers analyze the different elements and investment performance of the company’s governance from different angles, and have achieved considerable results. However, the level of corporate governance depends on the comprehensive impact of various governance factors, and its quality is difficult to measure from a single factor. Therefore, this article discusses the impact of equity structure, board leaders and management incentives, decision-making capabilities, and CEOs on corporate governance, and gives comprehensive indicators reflecting the level of corporate governance. Studies have found that companies with low management level often perform poorly. Improve corporate governance conducive to solving distribution and representative problems, realize the unity of property rights management and goals, avoid management short-sighted behavior, take into account moral risks, rationally allocate corporate resources, improve capital utilization efficiency, and reduce inefficient investment.

The development of China’s capital market is not mature. Information asymmetric and imperfect capital markets lead to increased risk of investors and lead to financial tightening. The investment of foreign companies is not only expensive, but also very limited. Financial restrictions usually make the company unable to invest in favorable investment decisions and ensure the greatest return. This restricts the investment capital of the enterprise and highlights the low investment efficiency of my country’s high-tech enterprises. Some companies continue to invest too much. In this case, financial constraints can increase the company’s investment costs and reduce their investment, but can improve the company’s investment efficiency. Financial constraints are important factor in controlling investment. Therefore, it is necessary to study the impact of financial constraints on investment efficiency and distinguish excessive investment and too low investment. Financial constraints and interaction are the main factors affecting the company’s investment decisions. Improving the corporate governance structure not only facilitates the transfer of interests between shareholders and investors, but also helps to solve the conflict between shareholders, management, and investors. In the case of low level of corporate governance, investors cannot evaluate the company’s real investment goals and can only passively increase returns and capital costs. Fiscal tightening can not only directly affect the company’s investment, but also indirectly affect the company’s contribution by reducing basic factors. The growth of the company’s internal cash flow has led to excessive investment and labor exhaustion in corporate governance, which has exacerbated basic problems and systems. The financial restrictions faced by the company may alleviate the problem of transmission institutions. If some financial restrictions are imposed on regulatory agencies, restrictions on foreign capital markets may force regulatory agencies to improve their operating decisions.
5. Conclusion

Digital transformation of manufacturing refers to the integration and application of new generation of information technology in the field of manufacturing under the background of the current digital economy development. Architecture is the foundation of the real economy, which is closely related to digital chemistry and industrial digitalization. On the one hand, high-tech manufacturing of digital information products such as terminal equipment, smart equipment, electronic components, and integrated circuits is the material basis of digital chemical industry. It is a product of traditional manufacturing, blockchain, and artificial intelligence. On the other hand, digital technologies such as simulation technology are the core of the development of manufacturing, the key to achieving precise market positioning, expanding product functions, and improving product quality and added value. Digital technology is an intellectual industry. From the perspective of investment returns, the investment behavior of enterprises is manifested as effective investment and invalid investment. If the capital cost during the investment process is lower than the company’s income, the company will not increase the investment amount for any reason, so it will not receive enough investment. Due to the low threshold of investment income, investment growth exceeding a certain threshold will actually reduce investment income and lead to excessive investment. In this context, this article studies the digital transformation of corporate enterprises based on algorithms: green innovation in investment efficiency organizations. This article deeply studies the status quo and the advantages of green innovation investment in digital technology, and puts forward corresponding suggestions.

Data Availability

The dataset is available upon request.

Conflicts of Interest

The authors declare no conflicts of interest.

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