

The Influence Mechanism of Data Market Regulation and New Quality Productivity on Innovation

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Abstract: The influence mechanism of data market regulation and new quality productivity on innovation is a very important topic. This paper adopts normative research method to explore the impact mechanism of data market regulation on new quality productivity and innovation. Data market regulation and new quality productivity are mutually promoting and influencing two-way relationship. Data market regulation is the driving force and key force to promote innovation, and the core of new quality productivity is innovation. Material productivity provides basic capacity for innovation, digital productivity provides support for innovation, green productivity provides a new path for innovation, and blue productivity broadens the boundaries of innovation. Data market regulation, new quality productivity and innovation together create a new closed-loop system for development. The research results of this paper can provide reference for theoretical research and enterprise innovation.

Keywords: Data Market Regulation; New Quality Productivity; Enterprise Innovation, Mechanism; Synergy

1. Introduction

With the rapid development of information technology, massive data resources are continuously accumulated, which has great commercial and social value [1]. New technologies such as cloud computing, blockchain, Internet of Things, and mobile Internet continue to emerge and their application scenarios continue to be rich, accelerating the generation of massive data [2]. The massive data resources created by the era of big data have great application value of data mining and analysis, and are an important

source for enterprises to obtain economic profits [3]. Data assets have a multidimensional theoretical basis, data assets meet the basic conditions of financing and have the characteristics of financability. The legal realization form of data asset financing is pledge, and the relevant legal system of data asset pledge can be designed and formulated with reference to the rules of movables pledge [4]. As the business activities of enterprises and individuals realize value description, value transmission, value creation and value realization through digital forms, the world has gradually entered the era of digital economy [5]. Data is an important factor of production in the new era and an important production resource for enterprises [6]. Regarding the concept of data, from a narrow perspective, data is a kind of information with potential use value based on digital processing [7]; From a broad perspective, data should be any content, text or medium that can be stored in a specific form [8]. Data assets come from data, but for the same data, there are multiple rights subjects, and data producers and data consumers may be integrated. Data owners, data users, data distributors and data destroyers have different data rights, and may change at different time nodes [9]. Data capitalization is a process in which data brings economic benefits to users or owners through market circulation transactions. Its essence is to form data exchange value and realize data value initially [10]. The overall framework of the data asset-based management system is an organic combination of data assets as the management object, organization, system and process as the core, and enterprise data panorama view as the support, and a series of supporting management activities [11]. From the economic point of view, data assets are mainly divided into five aspects, namely, data commodity pricing, data asset management,

data market operation mode, data market supervision, data market taxation. The impact of data capitalization on new quality productivity is a complex system. This paper mainly analyzes the impact mechanism of data market regulation on new quality productivity and innovation from the perspective of data market regulation in data capitalization.

2. The Influence Mechanism of Data Market Regulation on New Quality Productivity

Data market regulation can effectively improve data quality. Through the development of strict data standards and specifications, data market regulation can ensure the accuracy, integrity and consistency of data, which provides a solid foundation for the development of new quality productivity. Data market regulation encourages data sharing and cooperation among enterprises, government departments, scientific research institutions, etc. Data market regulation breaks data silos, data market regulation realizes data interconnection and comprehensive utilization, and data market regulation provides rich data resources for the development of new quality productivity. Data market regulation is conducive to fostering an innovation environment, and data market regulation promotes technological innovation and the development of new business formats. Data market supervision encourages enterprises to actively invest in data research and development and application, data market supervision improves data innovation ability, and data market supervision provides a steady stream of innovation impetus for the development of new quality productivity. Data market supervision helps to optimize the industrial structure, and data market supervision promotes the transformation and upgrading of traditional industries. By promoting the deep integration of emerging technologies such as big data and artificial intelligence with traditional industries, data market regulation can cultivate new growth points, and data market regulation provides a broad market space for the development of new quality productivity.

2.1 The Influence Mechanism of Data Market Regulation on Material Productivity

Material productivity refers to the ability of a country or region to create material wealth in

the production process. Material productivity includes natural resources, labor, capital and technology. Material productive forces are the basis of social and economic development. Material productivity has an important impact on national prosperity, people's living standards and international competitiveness. There is a close relationship between data market regulation and material productivity. The main purpose of data market regulation is to regulate data trading and utilization, protect data security and personal privacy, promote rational allocation of data resources, and improve data quality. Data market regulation can guide technological innovation by formulating industry norms and technical standards, and promote the deep integration of data technology and the real economy. Data market regulation helps to maintain the fair competition order of the market, prevent unfair competition and monopoly behavior, so as to encourage enterprise innovation and development, and improve material productivity. Strict data market regulation can protect consumers' privacy and data security, reduce risks such as data breaches, and thus increase consumer trust in the digital economy. Data market regulation can help ensure that enterprises' market behaviors comply with laws and regulations, protect the legitimate rights and interests of consumers, and thus promote the healthy development of the market. The protection of consumer rights and interests is more conducive to consumer consumption, so as to promote the development of material productivity. Data market regulation can standardize the competition order of data market, reduce the market entry threshold, encourage fair competition, and thus improve the efficiency of resource allocation. Enterprises can more easily access the data they need, reduce information asymmetry, and thus improve material productivity. Data market regulation provides a good environment for technological innovation. Enterprises can discover new market demand and technological development direction through data analysis and mining, so as to promote industrial upgrading. Data market regulation can promote the rational development and utilization of data, and promote technological innovation and industrial upgrading. Through the effective management and protection of data, enterprises

can make better use of technologies such as data analysis and artificial intelligence to improve production efficiency and reduce production costs, thereby improving material productivity. The regulation of data market can realize the fine management of the production process by standardizing and managing the data. Enterprises can find problems in the production process through data analysis and mining, so as to improve production efficiency. In addition, data market regulation also helps enterprises improve the level of automation and intelligence in the production process, thereby improving the level of material productivity. Data market regulation improves resource utilization by standardizing and managing data. Through data analysis and mining, enterprises can find the problems in the process of resource utilization, so as to improve resource utilization. Data market regulation also helps enterprises improve the level of refinement and intelligence in resource utilization, thereby improving the level of material productivity. Data market supervision needs to strengthen data quality management, ensure the authenticity, integrity, timeliness and accuracy of data, and provide reliable data support for the development of material productivity. Data market regulation can help enterprises better understand market demand and improve product quality. Through the analysis of consumer data, enterprises can more accurately grasp the market demand, optimize product design and production processes, improve product quality, and thus improve material productivity. Data market regulation can promote integration and innovation between different industries and improve industrial synergies. Through data analysis and sharing, enterprises can better understand the needs and changes of the upstream and downstream of the industrial chain, achieve coordinated development of the industrial chain, and improve material productivity. Data market regulation needs to promote the integration and sharing of data resources by various subjects such as government departments, enterprises and public institutions, break data barriers, improve data utilization efficiency, and promote the development of material productivity. Data market regulation can promote talent training and introduction, and provide talent guarantee for material productivity. Through the

formulation of reasonable talent policies, attracting and cultivating professionals in data science, artificial intelligence and other fields, improving the innovation ability of enterprises, thereby improving material productivity. Data market supervision needs to strengthen data security protection, prevent risks such as data leakage and data abuse, and ensure a safe environment for the development of material productivity. Data market supervision needs to establish a perfect market supervision system, strengthen the supervision of data market, maintain market order, and ensure a fair competition environment for the development of material productivity.

2.2 The Impact Mechanism of Data Market Regulation on Digital Productivity

Digital productivity refers to the ability to use digital technologies, digital tools and digital resources to improve productivity and work efficiency. Data market regulation is a key link to ensure the development of digital productivity. Effective data market regulation can provide a solid foundation for the development of digital productivity. By formulating and implementing appropriate data regulatory policies, data regulatory policies can ensure the legal and compliant use of data, avoid data abuse, data leakage and other risks, and create a safe and healthy development environment for enterprises. The main objective of data market regulation is to maintain market order, protect the rights and interests of consumers, and ensure the safe and compliant use of data. Through the formulation and implementation of relevant laws and regulations, data market regulation can regulate the competitive order of the digital market, prevent unfair competition and monopolistic behavior, and protect innovation and fair competition. Data market regulation can help optimize resource allocation. Through the formulation of relevant policies and measures, data market supervision guides the concentration of digital resources to advantageous enterprises, improves the efficiency of resource utilization, and promotes the development of the industry to the high-end and intelligent direction, thus improving digital productivity. By formulating fair market competition rules, regulating the transaction behavior of data market, preventing unfair competition and monopoly behavior, it

is conducive to maintaining the fair competition order of data market and promoting the development of digital productivity. Data market regulation can help promote technological innovation and upgrading. By formulating appropriate technical standards and norms, data market regulation guides enterprises to increase investment in technology research and development and innovation, thereby promoting industrial technology upgrading and enhancing digital productivity. Data market regulation needs to drive market innovation to support the development of digital productivity. Market innovation can include new business models, new service models, new product models and other aspects of innovation. Market innovation can stimulate the innovation vitality of enterprises, improve the market competitiveness of enterprises, and promote the development of digital productivity. Data market supervision improves data quality and availability by formulating data quality standards and standardizing data collection, processing, storage and other links. Data market regulation promotes the research and application of technologies such as data standardization, data cleaning, and data quality assessment to provide a high-quality data foundation for digital productivity. Data market regulation encourages and promotes the orderly opening and sharing of data, breaks data silos, and realizes the maximum utilization of data resources. Through the formulation of data open policies, the establishment of public data open platforms, and the promotion of data cooperation among enterprises, data market regulation promotes the full flow of data under the premise of legal compliance, and provides rich data resources for digital productivity. Data market regulation needs to drive regulatory innovation to support the development of digital productivity. Regulatory innovation can include new regulatory methods, new regulatory means, new regulatory mechanisms and other aspects of innovation. Regulatory innovation can reduce regulatory costs, improve regulatory efficiency and improve regulatory quality. At the same time, regulatory innovation can also provide a stable environment for the development of digital productivity. Data market regulation can help cultivate high-quality talents. Through the formulation of

talent training plans and policies, data market regulation encourages enterprises to increase investment in digital skills training and talent introduction, improve the professional quality and skill level of digital talents, and provide sufficient talent protection for the development of digital productivity. Data market regulation can help promote industrial convergence. By relaxing market access, data market regulation promotes the integration and cooperation between different industries, realizes the complementarity of advantages between industries, and further expands the development space of digital productivity. Data market regulation helps strengthen industrial chain coordination. Through the formulation and implementation of relevant policies and measures, data market supervision guides upstream and downstream enterprises in the industrial chain to strengthen collaboration, build a stable industrial ecology, and improve the overall level of digital productivity. Data market regulation can help strengthen international cooperation. Through the formulation of international cooperation strategies and policies, actively participate in the formulation of international standards, data market regulation to strengthen exchanges and cooperation with other countries in data regulation, improve the international competitiveness of China's digital productivity. Data market regulation helps maintain a market environment of fair competition, encourages enterprises to innovate, and improves productivity. Strict regulatory policies can prevent unfair competition and monopolistic behavior, and data market regulation enables various enterprises to compete on a level playing field, thus promoting the development of digital productivity. By formulating fair market rules, data market regulation combats unfair competition and maintains fair market competition order. Data market regulation has cracked down on monopoly, unfair competition, price manipulation and other illegal acts, lowered the market entry threshold, encouraged innovation, and promoted the healthy development of the digital economy. Data market regulation has created a good market environment for digital productivity.

2.3 The Influence Mechanism of Data Market Regulation on Green Productivity

Green productivity refers to a production mode that reduces resource consumption, reduces waste generation, reduces environmental pollution and improves resource utilization efficiency in the process of production and consumption. Data market regulation can promote green productivity. Data market regulation can promote the development of green finance and provide financial support for green development. Through the analysis and evaluation of environmental protection data, financial institutions can better identify and support green projects and reduce the financing costs of green projects. Data market regulation helps to improve the transparency of market information and make it easier for enterprises to access resources such as technology, talent and capital related to green productivity. Effective market regulation can reduce market transaction costs and make enterprises more willing to invest in green productivity research and development and production. Data market regulation can help enterprises better manage energy consumption, through the analysis of energy consumption data, timely find and solve the problem of energy waste, reduce energy consumption in the production process, and improve energy efficiency. Data market regulation through the formulation of relevant policies and regulations to regulate the collection, storage, analysis and utilization of data to ensure the authenticity, accuracy and integrity of data, which helps enterprises pay more attention to environmental protection and energy saving in the production process, so as to achieve green development. Data market regulation helps to level the playing field and make companies more competitive in green productivity. Effective market regulation can prevent unfair competition behavior, make enterprises pay more attention to improve their own green productivity level, so as to gain a competitive advantage in the market. Data market regulation can protect intellectual property rights and encourage enterprises to increase investment in green technology innovation. Through a strict intellectual property protection regime, companies can ensure that their investment in green technology innovation will receive a reasonable return, thereby stimulating more green technology innovation. Data market regulation can help consumers better understand the information of

green products and guide consumers to choose green products. By improving the market awareness and acceptance of green products, enterprises will pay more attention to the improvement of green productivity, and thus promote the development of green industry. Data market regulation helps promote green consumption, standardizing market order by formulating strict environmental regulations and guiding consumers to choose green and environmentally friendly products and services. The increase in green consumption demand will also promote enterprises to increase investment in green productivity and further improve the level of green productivity. Data market regulation can help promote industrial upgrading and improve the level of green productivity. Through the development of strict industry standards and regulations, enterprises must continuously improve the level of green production to meet market requirements, thus promoting the green upgrading of the entire industry. Data market regulation can promote international cooperation and provide a broader space for the development of green productivity. By strengthening international cooperation and regulatory coordination, countries can jointly promote the development of green productivity and share green technologies, experience and knowledge, thus contributing to global green development. Data market regulation through the formulation of relevant policies and regulations to regulate the collection, storage, analysis and utilization of data to ensure the authenticity, accuracy and integrity of data, which helps enterprises pay more attention to environmental protection and energy saving in the production process, so as to achieve green development.

2.4 The Influence Mechanism of Data Market Regulation on Blue Productivity

Blue productivity is an economic concept that refers to a model of economic growth and development through the use of Marine resources and technologies. Data market regulation will provide strong support for the development of blue productivity. Data market regulation can standardize the order of the data market, ensure the compliance of market entities in data collection, processing, use, trading and other links, avoid data abuse, data fraud and other phenomena, and ensure the

authenticity and effectiveness of data. Data market regulation can promote the quality management of Marine data, including data cleaning, data verification and data integration. High quality Marine data helps to improve the accuracy and efficiency of Marine resources development and utilization. Data market regulation can promote enterprises to increase research and development investment in data technology, improve data mining and analysis capabilities, and thus improve production efficiency. At the same time, data market regulation is also conducive to promoting data sharing, breaking information silos, and enabling enterprises to use data resources more effectively. Data market regulation can promote the integration and sharing of data resources, break data barriers, realize cross-industry and cross-field circulation of data, and provide rich data resources for the development of blue productivity. Data market supervision needs to pay attention to new data formats, application scenarios and regulatory issues, expand the scope of supervision, and ensure that data is compliant, safe and orderly in the development of blue productivity. Data market regulation can provide policy makers with objective data on the development of blue productivity and help them formulate more effective policy measures to promote the development of the blue economy. Data market regulation can optimize the industrial layout and structure, guide market players to combine their own advantages, increase investment and innovation in the Marine industry, promote the upgrading of the Marine industrial structure, and improve the overall level of blue productivity.

3. The Influence Mechanism of Data Market Regulation on Innovation

The impact mechanism of data market regulation on innovation is two-way and needs to be analyzed according to specific circumstances. Proper market regulation helps protect the rights and interests of consumers and the intellectual property rights of innovators, and promotes market competition and technological innovation, while strict market regulation may limit innovation and reduce market vitality. Therefore, it is necessary to formulate appropriate regulatory policies and measures according to the actual situation to achieve a balance between

technological innovation and market regulation. Strict market regulation may raise the cost and threshold of innovators, and strict market regulation will limit the development of innovation. Proper market regulation can help protect innovators' intellectual property rights and incentivize more innovation. Strict market regulation may reduce the vitality of market competition and hinder the promotion and application of technological innovation. Strict market regulation helps protect the rights and interests of consumers and promote the healthy development of technological innovation. In order to more specifically analyze the impact of data market regulation on innovation, this paper divides innovation into new technologies, new models and new advantages, discusses the impact mechanism of data market regulation on new technologies, analyzes the impact mechanism of data market regulation on new models, and analyzes the impact mechanism of data market regulation on new advantages.

3.1 The Influence Mechanism of Data Market Regulation on New Technologies

The impact mechanism of data market regulation on new technologies is complex, and it requires the joint efforts of regulators, enterprises and all sectors of society to promote the organic combination of technological innovation and regulatory policies, and promote technological progress and market development. With the rapid development of big data, artificial intelligence, blockchain and other technologies, data market regulators need to constantly update regulatory methods and technologies to adapt to the regulatory challenges brought by new technologies. By formulating relevant policies and regulations, regulators guide the development direction and application fields of new technologies to ensure the development of new technologies on a legal and compliant track. Regulators can also promote the development of new technologies by providing information, funding, policy and other support to promote enterprises to increase investment in technology research and development and application. Data market regulation needs to promote the standardization and normalization of new technologies in order to better promote technological innovation and market competition. The government can guide enterprises to carry out technological

innovation and development in accordance with unified standards by formulating technical standards and norms. Data market regulation needs to increase public awareness of new technologies in order to promote their adoption and application. The government can raise the public's awareness of new technologies and enhance the public's awareness of data protection through publicity, education and other means. Data market regulatory policies and regulations may affect investors' willingness to invest in new technologies and their ability to finance them. Strict regulatory policies may limit investors' investment in new technologies, while a relaxed policy environment helps attract more investors and funds to new technologies. The government can provide policy and institutional guarantee for the development of new technologies by formulating relevant laws and regulations. Strict data market regulatory policies may limit the development and application of new technologies, while a relaxed policy environment helps to encourage technological innovation and market competition. Regulators should fully consider the characteristics of new technologies when implementing policies to promote technological innovation and market development.

3.2 The Influence Mechanism of Data Market Regulation on the New Model

Data regulation refers to the management of the data market by the government or relevant agencies to ensure the standardization, fairness, justice and security of the data market. The main content of data supervision includes the formulation of data market policies, regulations and standards, the supervision of data market players, and the maintenance of data market order. The new model refers to the era of digital economy, based on data, network, artificial intelligence and other technologies, innovative business models, innovative operation models, innovative management models, etc., the new model can improve the competitiveness of enterprises and market share. The characteristics of the new model include: innovation, integration, platform, intelligence, data-driven and so on. Data market regulation can improve the transparency of market competition by establishing information disclosure system, and prevent enterprises in the new model from

obtaining competitive advantages through improper means. Data market regulation can prevent unfair competition by strengthening the protection of intellectual property rights, encouraging enterprises in the new model to innovate. Data market supervision can ensure that the goods or services purchased by consumers in the new model meet quality standards and guarantee after-sales service through the supervision of the quality and after-sales service of the new model. Data market regulation can prevent enterprises from manipulating market prices in the new model and damaging consumers' rights and interests through price regulation of the new model. Data market supervision can guide enterprises to strengthen the integration and development of other industries and enhance the overall competitiveness of the industry through the supervision of new models. The new model of data market regulation needs to be in line with national and local regulations and policies. Government regulators need to develop relevant regulations and policies to regulate the operation and management of data markets, which may include provisions on data protection, data security and data quality. Through the formulation of relevant laws and regulations, clarify the legal status of the data market, the ownership of data rights and the rules of use, standardize the operation and management of the data market, and provide legal protection for the establishment of a new model of data market supervision. By promoting the open and sharing of data resources between public and private sectors such as government departments, enterprises and institutions, encouraging data cooperation among enterprises and promoting the efficient use of data resources, data market regulation provides data support for the establishment of new models. Through the formulation of strict data security and privacy protection regulations, strengthen industry self-discipline, regulate the behavior of enterprise data collection, processing, use and storage, data market regulation ensures data security and personal privacy is not infringed, and data market regulation provides security guarantee for the establishment of new models. By encouraging enterprises to strengthen data quality and data analysis capacity building, improve the accuracy, integrity and effectiveness of data, data market regulation

provides data quality assurance for the establishment of new models. By encouraging the development of the data industry, promoting the development of various links of the industry chain such as data collection, processing, analysis and application, and forming a complete data industry ecology, data market supervision provides industrial support for the establishment of a new model. By actively participating in the formulation of international data market regulation rules, strengthening exchanges and cooperation with other countries in the field of data market regulation, sharing the experience and results of data market regulation, data market regulation provides international support for the establishment of new models.

3.3 The Influence Mechanism of Data Market Regulation on New Advantages

Data market regulation will effectively promote the formation of new advantages and inject new vitality into economic development. Data market regulation helps to promote technological innovation and improve the core competitiveness of enterprises. Through the development of strict data usage norms and privacy protection measures, data market regulation drives enterprises to continuously improve technology, improve data use efficiency and security, thus forming new competitive advantages. Data market regulation helps enterprises integrate resources and improve operational efficiency. By establishing clear data usage rules, enterprises can better integrate internal and external data resources, improve data utilization efficiency, and form a unique competitive advantage. Data market regulation can help enterprises optimize customer relationship management and improve customer satisfaction. Through the development of strict privacy protection measures, enterprises can better protect customer privacy, improve customer trust in the enterprise, thereby improving customer satisfaction and forming a competitive advantage. Data market regulation helps maintain the authenticity, accuracy and integrity of data, and provides enterprises with reliable data sources, thus helping enterprises gain competitive advantages on the basis of data. Data market regulation can prevent data monopoly and abuse, lower market entry barriers, and create a level playing field for all

types of market players, thus encouraging enterprises to gain competitive advantages through technological innovation and product optimization. Data market regulation helps to protect consumers' personal privacy and data security, reduce the risk of data leakage and abuse, and thus enhance consumers' confidence in the market. Data market regulation is conducive to enterprises to gain competitive advantages on the basis of winning consumers' trust. Data market regulation helps promote data sharing and cooperation among industries, achieve industrial integration and transformation and upgrading, and thus bring new competitive advantages to enterprises.

4. The Influence Mechanism of New Quality Productivity on Innovation

New quality productivity promotes the development of new technologies through technological innovation, including research and development of new technologies, improvement of existing technologies and integration of multiple technologies. Technological innovation can improve the performance of new technologies, reduce costs, improve reliability, etc., so as to promote the application and development of new technologies. New quality productivity promotes the development of new technologies through industrial upgrading, including promoting the adjustment of industrial structure, the improvement of industrial chain and the construction of industrial ecology. Industrial upgrading can improve the application scope and market scale of new technologies, thus promoting the development and application of new technologies. New quality productivity promotes the development of new technologies through organizational change, including establishing new organizational structure, optimizing management process and improving organizational efficiency. Organizational change can improve the application effect and efficiency of new technology, so as to promote the development and application of new technology. The new quality productivity provides the technical foundation and support for the development of new technology, and promotes the innovation and application of new technology. The new quality productivity promotes the upgrading and development of

the industry, and promotes the application and promotion of new technologies in the industry. The new quality productivity provides opportunities and space for the market expansion of new technologies, and promotes the wide application of new technologies in the market. The new quality productivity provides the basis and guidance for the government's policy support for new technology, and promotes the optimization of the policy environment for the development of new technology. The core driving force of new quality productivity is scientific and technological innovation, including new technology, new products, new processes, new materials and other aspects of innovation. The knowledge innovation of new quality productivity mainly refers to the promotion of social progress and economic development through the research and development of new knowledge, new technology and new methods. The talent innovation of new quality productivity focuses on the training, introduction and incentive mechanism of talents, and promotes the optimization and promotion of talent team. New quality productivity can improve production efficiency through technological innovation and management innovation, and provide more resources and space for the development of new technologies. New quality productivity can reduce production costs through technological progress, economies of scale and other ways to provide more financial support for the development of new technologies. New quality productivity can expand market demand by improving product quality and increasing product types, and provide more market space for the development of new technologies. New quality productivity provides a steady stream of power for business model innovation, and technological innovation and data drive help the rapid development of new models to improve the overall competitiveness of the industry. The application of new technologies in new quality productivity can promote the innovation and development of new models. The improvement of new quality productivity can reduce production costs and improve production efficiency, thus improving the competitiveness of enterprises and creating favorable conditions for the development of new models. The application of new quality productivity

can improve product quality and added value, enhance the competitiveness of enterprises in the market, and provide strong support for the development of new models. New quality productivity can promote the integration and innovation between different industries, produce new industrial forms and business models, and provide new opportunities for the development of new models. The new quality productivity promotes the coordinated development of the industrial chain, realizes the close cooperation between upstream and downstream enterprises, and improves the overall competitiveness of the industrial chain. Driven by data market regulation, new quality productivity will contribute to the development and innovation of new models. The improvement of new quality productivity cannot be separated from technological innovation. Enterprises need to continuously invest in research and development, promote the development of emerging technologies such as big data, artificial intelligence, and the Internet of Things, and provide technical support for new models of innovation. By promoting technological innovation, new quality productivity provides more advanced technologies and methods for innovation and improves innovation efficiency. The new quality productivity can promote the adjustment and optimization of enterprise organizational structure, improve innovation management ability and reduce innovation cost. New quality productivity can promote market innovation, expand new market demand, and provide a broader development space for innovation. The new quality productivity can promote the innovation of enterprise culture, stimulate the innovation consciousness and innovation ability of employees, and improve the success rate of innovation. New quality productivity promotes the application and development of new technologies to improve production efficiency and innovation capacity. New quality productivity encourages enterprises to apply big data, artificial intelligence, Internet of Things and other technologies in the production process to improve the level of intelligence, refinement and customization of products. New quality productivity to strengthen industry-university-research cooperation, promote the combination of basic research and applied research, in order to solve key core technology problems. New

quality Productivity has established innovation incubators, makerspaces and other innovation and entrepreneurship platforms to provide entrepreneurs with capital, technology, talent and other support. New quality productivity train innovative talents and improve the innovative ability and comprehensive quality of talent team. New quality productivity encourages enterprises to increase investment in research and development and enhance technological innovation capabilities. New quality productivity protects the intellectual property rights of innovators and stimulates innovation vitality. New quality productivity promotes cooperation among enterprises, universities and research institutes, realizes resource sharing, and enhances innovation ability. New quality productivity advocates the spirit of innovation and encourages employees to actively participate in innovation activities. New quality productivity Establish a reasonable salary system to stimulate the enthusiasm of employees for innovation.

5. The Influence Mechanism of Data Market Regulation and New Quality Productivity on Innovation

Data market regulation provides a good development environment for new quality productivity and innovation, while new quality productivity and innovation provide a strong technical support and innovation power for data market regulation. Data market regulation helps maintain market order, protect consumers' rights and interests, prevent unfair competition and monopolistic behavior, and provide a fair and just development environment for new quality productivity and innovation. New quality productivity through technological innovation, organizational innovation, management innovation and other means to improve production efficiency, reduce production costs, improve product quality, to provide technical support and material basis for innovation. Innovation is an important driving force to promote social progress and economic development, and is conducive to promoting data market regulation and the development of new quality productivity. Effective data market supervision can ensure the reasonable allocation of data resources and data security, and provide a good environment for the development of new quality productivity. The development of new

quality productivity can promote the prosperity of the data market, increase the availability of data and the diversity of data services, thus providing regulators with more data resources and regulatory means. Data market regulation can ensure the healthy development of data market and provide a good environment for the development of new quality productivity. The development of new quality productivity can promote the prosperity of the data market and provide more regulatory means for regulators, thus forming a virtuous circle. Data market regulation is the key to ensure the orderly development of data market. A sound data market regulatory system can protect user privacy, prevent data abuse, and ensure data security. The government should strengthen data market supervision, establish strict data protection laws and regulations, strengthen data market supervision, crack down on data violations, and promote the healthy development of the data market. New quality productivity is a key factor driving innovation and economic development. The government should actively cultivate new quality productivity, encourage enterprises to increase investment in research and development, promote technological innovation, and improve product quality and service level. At the same time, the government should also strengthen the training of talents, improve the quality of workers, and provide talents support for the development of new quality productivity. The construction of data infrastructure is an important foundation to promote the development of data market. The government should strengthen the construction of data infrastructure, improve the speed of data transmission, reduce the cost of data transmission, and promote the development of data market. At the same time, the government should also promote the open sharing of data, encourage enterprises, universities, research institutions and other data cooperation, and improve the efficiency of data utilization. Innovation ecosystems are key to driving innovation. The government should improve the innovation ecosystem, strengthen industry-university-research cooperation, encourage enterprises, universities and research institutions to carry out cooperative innovation, realize the sharing of innovation resources, and improve innovation efficiency. At the same time, the government should also improve the

intellectual property protection system, encourage enterprises to innovate, and improve their innovation capacity. Innovation environment is an indispensable condition for promoting innovation. The government should optimize the environment for innovation, lower the threshold for innovation, encourage innovation and entrepreneurship, and promote mass entrepreneurship and innovation. At the same time, the government should also strengthen the construction of innovation culture, create a social atmosphere that respects and encourages innovation, and stimulate the enthusiasm and vitality of innovation in the whole society. The synergy of data market regulation and new quality productivity has a significant impact on innovation. Data market regulation plays an important role in promoting the development of new quality productivity. The government has issued a series of policy measures to encourage and support the development of new quality productivity and create a good development environment for it, including tax incentives, financing support, technology research and development subsidies. Data market regulation contributes to the development and innovation of new quality productivity. The development of new quality productivity cannot be separated from technological innovation. Data market regulation helps to promote technological innovation and promote enterprises to constantly explore new business models and technological innovation. Through technological innovation, enterprises can improve production efficiency, reduce production costs, improve product quality and market competitiveness. Data market regulation can promote the integrated development of different industries and form a new industrial ecology. The development of new quality productivity requires the collaborative innovation of different industries. Through industrial integration, enterprises can make full use of various resources, form synergistic effect of industrial chain, and improve the overall competitiveness. The development of new quality productivity needs a large number of professionals as support. Data market regulation can promote talent training and provide enterprises with the talent support they need. The government can improve the quality and efficiency of

personnel training through educational reform, vocational training and other measures to provide more professional talents for enterprises. Data market regulation can maintain market order and prevent the occurrence of unfair competition. By maintaining market order, enterprises can compete and innovate in a fair environment, which is conducive to improving the overall market efficiency and innovation ability. Data market regulation can help companies get more financial support. By increasing investment in the development of new quality productivity, the government can guide more social funds to invest in the field of new quality productivity. Data market regulation provides financial support for the development of new quality productivity. Data market regulation and new quality productivity work together to form a synergistic effect and jointly promote the improvement of the level of innovation. Data market regulation and new quality productivity can jointly promote the government to introduce policies and measures conducive to innovation, and provide a good policy environment for innovation. Data market regulation and new quality productivity can jointly integrate resources, improve the utilization rate of innovation resources, and reduce innovation costs. Data market regulation and new quality productivity together control the potential risks in the innovation process and provide a stable development environment for innovation.

5.1 The Influence Mechanism of Data Market Regulation and New Quality Productivity on New Technologies

With the rapid development of digital technology and economy, data market regulation and new quality productivity are playing an increasingly important role in promoting technological innovation. Data market regulation creates a fair, just and transparent market environment and reduces market risks by standardizing data circulation and trading behaviors. At the same time, data market regulation contributes to the healthy development of the data market, releases data dividends, and promotes technological innovation. Data market regulation and new quality productivity jointly promote the development of technological innovation. By creating a fair, just and transparent market

environment, data market regulation can reduce market risks and improve new quality productivity. New quality productivity provides continuous power and support for technological innovation by promoting technological innovation and industrial upgrading. At the same time, the interaction between data market regulation and new quality productivity helps to form a virtuous circle and promote technological innovation and economic growth. The synergy between data market regulation and new quality productivity can encourage market players to actively participate in technological innovation and form synergies. For example, enterprises can cooperate with universities and scientific research institutions to jointly develop new technologies and share innovation results, thereby improving the overall technical level. The policy environment has an important impact on the development of new technologies. The collaboration between data market regulation and new quality productivity can optimize the policy environment, guide the development direction of new technologies, and provide policy support for the development of new technologies. For example, the government can introduce supportive policies to encourage enterprises to develop new technologies and promote industrial upgrading. The synergy of data market regulation and new quality productivity can build a data security system and provide a secure and reliable data environment for the development of new technologies. The synergistic effect of data market regulation and new quality productivity can promote data flow and provide more data resources for the development of new technologies. The synergistic effect of data market regulation and new quality productivity can promote technological innovation and provide more technical support and innovation impetus for the development of new technologies. The synergy of data market regulation and new quality productivity can optimize the industrial structure and provide a more favorable industrial environment for the development of new technologies. In short, the collaborative approach of data market regulation and new quality productivity to support new technologies requires the joint efforts of the government, enterprises, universities and scientific research institutions to promote

technological innovation, market optimization, personnel training and industrial upgrading, promote the promotion and application of new technologies, and enhance the overall competitiveness of the country. The path of data market regulation and new quality productivity to promote new technologies is as follows. The first path is to establish a sound data market supervision system. In order to promote the development of new technologies, the government needs to establish a sound data market supervision system to ensure the security, compliance and availability of data, which includes the formulation of relevant laws and regulations, the establishment of regulatory agencies, strengthening data protection, and combating data abuse. The second path is to nurture data markets. Governments need to foster data markets that encourage businesses, individuals, and organizations to share and exchange data in order to maximize the use of data. This includes establishing a data trading platform, promoting the integration and sharing of data resources, and encouraging enterprises to carry out data innovation. The third path is to support the development and application of new technologies. The government needs to support the research and development and application of new technologies, and provide support in terms of policies, funds and talents to accelerate the landing and application of new technologies. This includes setting up a science and technology innovation fund, providing tax incentives, and strengthening intellectual property protection. The fourth path is to strengthen industry-university-research cooperation. The government needs to strengthen industry-university-research cooperation and promote the joint research and development of new technologies by enterprises, universities and research institutions. This includes establishing platforms for industry-university-research cooperation, promoting the transformation of technological achievements, and strengthening personnel exchanges and training. The fifth path is to promote digital skills training. The government needs to promote digital skills training and improve the digital literacy of the public to promote the popularization and application of new technologies. This includes conducting digital skills training courses, providing online learning resources, and

enhancing digital skills education. The sixth path is to strengthen international cooperation. Governments need to strengthen international cooperation to promote the application and promotion of new technologies on a global scale. This includes participating in international technical exchange activities, establishing international cooperation relations, and promoting the internationalization of technical standards.

5.2 The Influence Mechanism of Data Market Regulation and New Quality Productivity on New Models

Data market regulation plays an important role in guaranteeing the development of new models. By formulating strict data protection regulations and strengthening data market supervision, data market supervision can effectively protect user privacy and data security, and data market supervision provides a safe and stable data environment for the development of new models. New quality productivity can stimulate the vitality of data innovation and enhance the value of data. By strengthening the integration of data resources and promoting cross-industry and cross-field data sharing and cooperation, new quality productivity can promote the mining and utilization of data value, and provide powerful data support for new models. The collaboration between data market regulation and new quality productivity can optimize the industrial structure and foster emerging industries. By guiding the agglomeration of data elements to emerging industries, the collaboration between data market regulation and new quality productivity can promote the transformation and upgrading of traditional industries, and the collaboration between data market regulation and new quality productivity can promote the rapid development of new models and enhance industrial competitiveness. The synergy of data market regulation and new quality productivity can drive technological innovation and improve production efficiency. Through strengthening the research and development and application of data technology, the collaboration between data market regulation and new quality productivity can improve the quality and efficiency of data services, and the collaboration between data market regulation and new quality productivity provides technical support for the development of new

models. The strengthening of data market supervision provides a guarantee for the development of new quality productivity, so that enterprises can focus more on technological innovation and product research and development, thus promoting the innovation and development of new models. The improvement of new quality productivity will promote the upgrading of traditional industries, so that enterprises can better adapt to changes in market demand, improve production efficiency, reduce production costs, and thus promote the development of new models. The improvement of data market supervision will help enterprises better integrate various resources, including talent, capital, technology, etc., so as to promote the development and growth of new models. The strengthening of data market supervision will help enterprises to better explore the market, expand market share, improve brand awareness and reputation, and thus promote the development of new models. The improvement of new quality productivity will promote the coordinated development of the industrial chain, so that enterprises can better achieve the integration of the upstream and downstream industrial chain, improve the competitiveness of the overall industry, and thus promote the development of new models. The improvement of data market supervision will prompt the government to give more policy support to the development of the new model, including funding, taxation, personnel training and other aspects of support, so as to promote the development of the new model. The improvement of new quality productivity will promote the improvement and development of public services, including logistics, finance, information services, etc., so as to promote the development of new models. The improvement of data market supervision will help to create a fair, just and transparent market competition environment and create a good social environment for the development of new models. Data market supervision departments should strengthen the supervision of data quality, encourage data providers to improve data quality, ensure the accuracy, integrity and timeliness of data, and provide a reliable data basis for the development of new models. The data market supervision department should strengthen the investment and support for the construction of data

infrastructure, and provide strong technical support for the development of new models. Data market regulatory authorities should encourage enterprises and entrepreneurs to actively participate in data market innovation, provide policy, financial and other support, and promote the rapid development and maturity of new models. The data market supervision department should strengthen the supervision of data market competition, prevent the occurrence of monopoly and unfair competition behavior, and create a fair and orderly competition environment for the development of new models. Data market regulation provides a good competitive environment for the development of new quality productivity, encourages enterprises to increase research and development investment, promotes continuous innovation of data technology, and provides strong technical support for new models. Data market regulation will effectively promote the rational allocation of data resources, reduce data transaction costs, improve data resource utilization, and provide rich data support for new models. Data market regulation will guide enterprises to explore new areas, develop new businesses, cultivate a number of emerging industries with core competitiveness, and provide rich application scenarios for the new model. Data market regulation will promote enterprises to continuously improve product quality and service level, form a unique competitive advantage, and occupy a favorable position in the new mode of competition. Data market supervision will guide the coordinated development of industries, build a multi-chain collaborative system of industrial chain, innovation chain, talent chain and capital chain, and provide a good industrial ecology for the development of new models. Data market regulation provides a guarantee for the development of innovative models, while new quality productivity provides impetus and support for data market regulation. The two interact and jointly promote the development of innovative models. The promotion path of data market regulation and new quality productivity to the new model includes four aspects. The first path is innovation-driven. Data market regulation and new quality productivity together drive innovation and foster new business models. With the continuous improvement of data market

regulation, the utilization of data resources has become more efficient and secure, thus providing innovative impetus for the development of new models. The second path is industrial integration. Data market regulation and new quality productivity promote industrial integration and achieve coordinated development of the industrial chain. Data market regulation helps to break down industry barriers, promote information exchange and resource sharing between industries, and provide a broader market space for the development of new models. The third path is to improve quality and efficiency. Data market regulation and new quality productivity work together to improve productivity and reduce costs. By strengthening data market supervision and ensuring the reliability and security of data resources, it will help improve production efficiency, reduce costs, and provide strong support for the development of new models. The fourth path is to optimize the structure.

5.3 The Influence Mechanism of Data Market Regulation and New Quality Productivity on New Advantages

Data market regulation mainly involves the standardized use of data, the protection of user privacy, and the protection of data security. A healthy and orderly data market environment is the basic guarantee for the formation of new advantages. By establishing and improving the data market supervision system, it can promote the development of the industry, stimulate the vitality of innovation, and provide a good market environment for the formation of new advantages. The new quality productivity refers to the new productivity formed on the basis of the existing productivity through technological innovation, mode innovation, system innovation and other ways. New quality productivity is the core driving force to promote the formation of new advantages. The development of new quality productivity cannot be separated from technological innovation. Technological innovation can improve production efficiency, reduce production costs and enhance the competitiveness of enterprises. Through technological innovation, enterprises can develop new products and services, open up new markets, and form new competitive advantages. The development of new quality

productivity requires model innovation. Model innovation can change the original production relations and business models, and bring new competitive advantages to enterprises. Institutional innovation can provide institutional guarantee for the development of new quality productive forces. Through institutional innovation, we can establish a market environment conducive to innovation, improve the intellectual property protection system, and provide institutional guarantee for the formation of new advantages. The collaboration between data market regulation and new quality productivity is the key support for the formation of new advantages. Through collaboration, the collaboration between data market regulation and new quality productivity can realize resource sharing, complementary advantages, and improve the overall competitiveness. The coordination of data market regulation and new quality productivity can realize resource sharing. Data market can provide abundant data resources for the development of new quality productivity, and the development of new quality productivity can provide strong support for enhancing the vitality of data market. The synergy of data market regulation and new quality productivity can realize complementary advantages. Data market regulation can provide a standardized and orderly market environment for the development of new quality productivity, and the development of new quality productivity can provide technical support and innovation impetus for data market regulation. The synergy of data market regulation and new quality productivity can improve the overall competitiveness. Data market regulation can ensure the orderly operation of the data market, and new quality productivity can provide innovative impetus for the development of the industry and jointly promote the formation of new advantages. Data market regulation can promote the innovation and development of new quality productivity, promote industrial upgrading and transformation, and bring new competitive advantages to enterprises. To sum up, the synergistic mechanism of data market regulation and new quality productivity to promote new advantages mainly includes promoting the rational flow and utilization of data resources, promoting the innovation and development of new quality productivity, improving production efficiency, improving

product quality, expanding market space and improving market competitiveness. Through the synergy of these mechanisms, the effective promotion of new advantages can be achieved, providing continuous impetus for the development of enterprises. The effect of data market regulation and new quality productivity on new advantages can be summarized in four aspects. First, technological innovation is the core driving force of new quality productivity. By formulating reasonable data resource allocation policies, data market regulation encourages enterprises to increase research and development investment, enhance technological innovation capabilities, and achieve iterative innovation of products, services and technologies. Through technological innovation, enterprises can improve production efficiency and reduce production costs, thus occupying a favorable position in the competition of new advantages. Secondly, organizational innovation is an important guarantee for new quality productivity. Data market supervision guides enterprises to optimize organizational structure, improve management efficiency, reduce communication costs, and improve synergies. Organizational innovation can help enterprises better cope with market changes, improve market competitiveness, and provide strong support for the formation of new advantages. Thirdly, institutional innovation is the key support of new quality productivity. Data market supervision creates a good development environment for enterprises by establishing and improving laws and regulations system, standardizing market order, protecting intellectual property rights, and maintaining fair competition. Institutional innovation can help enterprises reduce institutional costs, improve the quality of development, and provide institutional guarantee for the formation of new advantages. Finally, market innovation is an important way to realize new quality productivity.

6. Research Conclusion

The research on the impact of data market regulation and new quality productivity on innovation has important theoretical and practical significance, and plays a positive role in promoting technological innovation, industrial transformation and upgrading, improving market competitiveness, and

protecting consumers' rights and interests. The research conclusion of the influence of data market regulation and new quality productivity on innovation mainly includes four aspects. First, data market regulation has an important impact on the development of new quality productivity. Data market regulation plays an important role in promoting the development of new quality productivity. By improving the data market supervision system, data market supervision can effectively solve the problem of data resource utilization and protection, and provide a strong guarantee for the development of new quality productivity. At the same time, strengthening data market supervision can also promote technological innovation, industrial upgrading and structural optimization, and data market supervision provides a strong driving force and support for the development of new quality productivity. Strengthening data market supervision can effectively promote cross-industry and cross-field data integration and sharing, and data market supervision provides rich data resources for the development of new quality productivity. Data market regulation helps to standardize data trading market, reduce transaction costs, improve data trading efficiency, and provide a better data trading environment for the development of new quality productivity. By improving the legal system of data market supervision, data market supervision can protect the rights and interests of data producers, users and consumers, and provide legal protection for the development of new quality productivity. By strengthening data market supervision, data market supervision can promote the research and application of data technology and provide technical support for the development of new quality productivity. Data market regulation helps to improve data security awareness, prevent data security risks, and provide security guarantee for the development of new quality productivity. Second, the impact of data market regulation on innovation is complex, and the impact of data market regulation on innovation is different. Data market regulation promotes innovation. Data market regulation promotes data sharing and helps promote cross-industry and cross-field collaborative innovation. Data market regulation could hamper innovation. Excessive data market regulation may restrict the free flow of data and reduce the efficiency of data

utilization by enterprises, thus affecting the vitality of innovation. The impact of data market regulation on innovation varies by industry. The impact of data market regulation on innovation varies across industries. The impact of data market regulation on innovation varies by firm size. In large enterprises, data market regulation can help reduce legal risk and promote corporate innovation. Among smes, data market regulation can increase compliance costs and limit innovation. The impact of data market regulation on innovation varies from country to country. In different countries, differences in cultural, political, and economic contexts can lead to differences in the impact of data market regulation on innovation. Third, new quality productivity has an important impact on innovation. Technological innovation, management innovation, organizational innovation and innovative talents are all key factors in the development of new quality productivity. Technological innovation is the key driving force for the development of new quality productivity. Management innovation is an important guarantee for the development of new quality productivity. Organizational innovation is an important basis for the development of new quality productivity. The development of new quality productivity needs the support of innovative talents. The development of new quality productivity requires a good environment for innovation. Fourth, data market regulation and new quality productivity have an important impact on innovation, and the government needs to take effective measures to strengthen data market regulation and promote the development of new quality productivity, so as to promote innovation and economic growth. There is a significant synergy between data market regulation and new quality productivity. Improving data market supervision is helpful to stimulate the development of new quality productivity; and the development of new quality productivity can promote the improvement of data market supervision. Therefore, governments, industry and enterprises need to work together to promote the synergistic development of data market regulation and new quality productivity to provide a more conducive environment for innovation. Data market regulation can promote the development of new quality

productivity and provide a good market environment for the innovation of new quality productivity. At the same time, the development of new quality productivity can also promote the improvement of data market supervision and improve market efficiency. The improvement of data market regulation will help to promote the development of new quality productivity. The improvement of data market supervision will also help improve enterprises' awareness of the value of data, thus stimulating enterprises' enthusiasm for data-driven innovation. The development of new quality productivity can in turn promote the improvement of data market supervision. The government needs to take effective measures to strengthen data market regulation and promote the development of new quality productivity, thereby promoting innovation and economic growth. Based on the above research conclusions, we can make the following policy recommendations. The government should strengthen the supervision of data, protect the intellectual property rights of enterprises, and encourage enterprises to conduct research and innovation. The government should promote the development of new quality productivity by means of technological innovation and organizational innovation, improve production efficiency, reduce production costs, and enhance product quality and added value. The government should promote the coordinated development of the industrial chain through policy guidance, improve the overall efficiency of the industrial chain, and reduce the overall cost of the industrial chain, so as to provide more funds and resources for enterprises in the industrial chain for innovation.

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