New Quality Productive Forces Empowering Digital Taxation Governance: Driving Mechanisms, Internal Logic, and Implementation Pathways

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Abstract: *In the context of the digital economy, New Quality Productive Forces, centered on technological innovation, data empowerment, and industrial transformation, present a significant opportunity for the transformation of tax governance. This paper explores the driving mechanisms, internal logic, and implementation pathways through which New Quality Productive Forces empower digital taxation governance. The research finds that multiple factors, including technology, data, and industry, constitute the core driving forces. These forces propel the transformation of tax governance through a shift in governance philosophy from "administration" to "governance", technological application from "informatization" to "intelligentization", business processes from "digitization" to "digital transformation", and the governance model from "single-subject governance" to "collaborative governance". Its internal logic is manifested as an organic unity of factor empowerment, process reengineering, precise services, governance collaboration, and institutional adaptation. Based on this, this paper proposes a three-dimensional implementation pathway encompassing technological integration, institutional innovation, and organizational talent development. These include measures such as building a smart taxation platform, improving relevant laws and regulations, and cultivating interdisciplinary talent, all aimed at enhancing the modernization level of tax governance and contributing to the development of the digital economy.*

Keywords: *New Quality Productive Forces, digital taxation governance, driving mechanisms, internal logic, implementation pathways*

1. Introduction

In the current era of a booming digital economy, New Quality Productive Forces are profoundly reshaping the modes of production and governance in the economic and social spheres. Tax governance, as a vital component of the national governance system, is confronted with numerous new challenges in the context of the digital economy. These challenges include the virtualization of transaction scenarios, the blurring of business boundaries, and the valorization of data elements. Traditional models of tax governance are gradually exhibiting inadequacies in areas such as collection and management efficiency, service precision, and collaborative capability. In this context, exploring the driving mechanisms, internal logic, and implementation pathways through which New Quality Productive Forces empower digital taxation governance holds significant theoretical and practical importance for enhancing the modernization level of tax governance and promoting the healthy development of the digital economy.

2. The Driving Mechanisms of New Quality Productive Forces Empowering Digital Taxation Governance

2.1 Core Driving Forces: The Drive of Multiple Factors Such as Technology, Data, and Industry

2.1.1 Technology-Driven Forces

The rapid development of new-generation information technologies, represented by artificial intelligence, big data, blockchain, and cloud computing, has brought revolutionary breakthroughs to tax

governance. Algorithmic models based on artificial intelligence enable the intelligent identification and early warning of tax risks. Big data technology breaks down information silos in tax data, facilitating the integration and sharing of data across departments and regions, and assisting tax authorities in comprehensively grasping the operational status of taxpayers. Blockchain technology, with its immutable and traceable characteristics, provides a trust mechanism for invoice management and tax collection, effectively preventing invoice fraud and tax revenue loss. Cloud computing offers powerful computational capacity, supporting the efficient storage and processing of tax data. The integrated application of these technologies drives the transformation of traditional tax governance from manual processes to automation and intelligentization, significantly enhancing the efficiency of tax collection and administration[1].

2.1.2 Data Element-Driven Forces

In the era of the digital economy, data has become a key production factor, and its value in tax governance is increasingly prominent. Data on taxpayers' operations, transactions, and credit constitute the core resources of tax governance. On the one hand, the fluidity and value-bearing nature of data elements extend the objects of collection and management from tangible goods and services to intangible data products and services, which traditional tax rules struggle to cover effectively. On the other hand, massive amounts of data also provide abundant "raw materials" for tax governance. Through the deep mining and analysis of this data, tax authorities can create precise profiles of taxpayers, thereby enabling personalized tax services and precise risk control. For example, based on transaction data from e-commerce platforms, tax authorities can accurately calculate the sales revenue of e-commerce enterprises, ensuring that all taxes due are collected.

2.1.3 Industrial Ecosystem-Driven Forces

The digital economy has given rise to new business forms such as the platform economy, the sharing economy, and digital finance. Characteristics of these forms, including cross-border integration, virtual operations, and asset-light models, render traditional tax collection and administration methods, which are based on physical business premises and paper vouchers, difficult to apply. In the platform economy, a vast amount of operational data concerning individual operators is held by platform enterprises. If tax authorities are unable to achieve data connectivity with these platform enterprises, it will be difficult to accurately calculate the tax payable by these individuals. Transactions in the sharing economy are mostly completed online, and the digitalization and fragmentation of transaction traces pose difficulties for tax collection. The transformation of the industrial ecosystem necessitates that tax governance relies on New Quality Productive Forces to construct a collection and administration system that aligns with the new economic patterns, thereby ensuring tax fairness and efficiency.

2.2 The Transmission Path of Driving Forces for New Quality Productive Forces Empowering Digital Taxation Governance

2.2.1 Conceptual Innovation in Governance: From "Administration" to "Governance"

Traditional tax governance regarded tax authorities as the sole subject, emphasizing the administration and supervision of taxpayers. Propelled by New Quality Productive Forces, the philosophy of tax governance is gradually shifting from "administration" to "governance," emphasizing the collaborative participation of multiple subjects and the co-construction of public interests. Taxpayers, third-party institutions, and the public can all participate in tax governance through data sharing and platform interaction. For example, taxpayers can use tax apps to inquire about their own tax information in real time and apply for tax relief, third-party institutions can participate in the analysis and application of big tax data, and the public can monitor and report tax violations. This conceptual shift in governance drives tax governance from a closed system towards openness, and from a singular model towards pluralism[2].

2.2.2 Deepening Technological Application: From "Informatization" to "Intelligentization"

The technological application in tax governance is advancing from informatization towards intelligentization. In the early stages, tax informatization focused on the electronization of tax processes, such as electronic filing and electronic invoices. Driven by New Quality Productive Forces, technologies like artificial intelligence and machine learning now endow tax systems with the capability for autonomous learning and intelligent decision-making. For instance, intelligent Q&A robots can address various inquiries from taxpayers, and intelligent filing systems can automatically generate filing data based on a taxpayer's operational status while flagging potential risks. This

transformation not only enhances the efficiency of tax governance but also improves the taxpayer experience, making services more human-centric and precise.

2.2.3 Business Process Reengineering: From "Digitization" to "Digital Transformation"

Digitization involves converting business processes into digital formats, whereas digital transformation entails the fundamental restructuring of business processes through digital technology. Under the influence of New Quality Productive Forces, tax business processes are no longer confined to simple digital migration; instead, they are being comprehensively reengineered around data-driven approaches and user needs. For example, traditional tax audit processes required manually selecting audit targets and conducting on-site verification of corporate accounts, which was time-consuming, labor-intensive, and inefficient. Through digital transformation, big data analytics technology can quickly identify high-risk enterprises. Combined with blockchain-based evidence storage technology, this enables the automatic collection and preservation of evidence, significantly shortening the audit cycle and improving audit precision. This transformation achieves efficient coordination and intelligent decision-making across all processes, driving the overall optimization of the tax governance system.

2.2.4 Governance Model Restructuring: From "Single-Subject Governance" to "Collaborative Governance"

New Quality Productive Forces have broken down departmental barriers and regional limitations, driving the governance model from single-subject governance towards collaborative governance. Technologically, tax authorities achieve data interoperability with departments such as market regulation, finance, and customs, constructing a cross-departmental data pool for tax governance. Regionally, with the aid of cloud computing and big data technologies, the integration of national tax governance has been realized, effectively preventing tax avoidance behaviors by enterprises exploiting differences in regional tax policies. Internationally, in the face of cross-border transactions in the digital economy, tax authorities from various countries are also exploring international collaborative tax governance mechanisms, such as combating international tax avoidance through data sharing and information exchange. By integrating resources from multiple parties, collaborative governance forms a synergistic force in governance, significantly enhancing overall effectiveness[3].

3. The Internal Logic of New Quality Productive Forces Empowering Digital Taxation Governance

The empowerment of digital taxation governance by New Quality Productive Forces follows an internal logic comprising factor empowerment, process reengineering, precise services, governance collaboration, and institutional adaptation. These logics are mutually supportive, together constituting the profound interconnection between the two.

3.1 The Logic of Factor Empowerment

By empowering core factors such as technology, data, and talent, New Quality Productive Forces provide resource support for digital taxation governance. Technological empowerment transforms artificial intelligence and big data into tools for tax governance. Data empowerment achieves precision and intelligentization in tax governance through the collection, analysis, and application of data, positioning data as the "core asset" of tax governance. Talent empowerment necessitates that tax authorities cultivate interdisciplinary professionals who possess both tax expertise and digital technology skills, thereby meeting the talent requirements of tax governance under New Quality Productive Forces. The logic of factor empowerment constitutes the resource and capability foundation for the transformation of tax governance driven by New Quality Productive Forces[4-6].

3.2 The Logic of Process Reengineering

Process reengineering represents a key logic through which New Quality Productive Forces empower tax governance. Supported by technology and data, the structure of tax business processes shifts from a traditional linear, hierarchical model to a flattened, networked one. For example, the tax filing process has evolved from taxpayers filing returns in person and tax personnel manually entering data to a fully digitalized process involving online self-filing by taxpayers, automatic system verification, and automated data archiving. Similarly, the tax audit process has transformed from manual case selection, on-site auditing, and manual evidence collection to an intelligent process

featuring system-based intelligent case selection, online data auditing, and blockchain-based evidence storage. By optimizing and restructuring business procedures, the logic of process reengineering streamlines process nodes, enhances the efficiency of tax governance, and reduces governance costs.

3.3 The Logic of Service Precision

Centered on taxpayer needs, the logic of service precision represents the value logic through which New Quality Productive Forces empower tax governance. Through in-depth analysis of taxpayer data, tax authorities can accurately grasp the personalized needs of different types of taxpayers and provide precision-based tax services. For example, tax authorities can push applicable tax incentive policies to small and micro enterprises, and offer international tax policy consultations and risk alerts to cross-border e-commerce enterprises. The logic of service precision reflects the transformation of tax governance from "extensive service" to "refined service," enhancing taxpayer satisfaction and tax compliance, thereby fostering a favorable tax business environment.

3.4 The Logic of Governance Collaboration

The logic of governance collaboration represents the systemic logic through which New Quality Productive Forces empower tax governance. Connected by technology and data, tax governance is no longer a "solo performance" by tax authorities but has formed a collaborative governance network that spans across departments, regions, and diverse entities. Tax authorities share data and conduct coordinated supervision with other government departments, and they interact and cooperate with taxpayers, third-party institutions, and the public, collectively participating in tax governance. This logic of collaborative governance breaks down the closed-off nature and limitations of traditional governance, achieving an optimized allocation of governance resources and maximizing governance effectiveness[7].

3.5 The Logic of Institutional Adaptation

The logic of institutional adaptation represents the safeguarding logic through which New Quality Productive Forces empower tax governance. The transformation of tax governance brought about by New Quality Productive Forces necessitates corresponding institutional rules for regulation and support. On the one hand, it is necessary to improve laws and regulations concerning data property rights, data security, and privacy protection, thereby providing an institutional basis for the collection, use, and sharing of tax data. On the other hand, it is essential to innovate tax policies and collection and administration systems that adapt to new economic forms, such as formulating specific tax rules for digital services and data transactions. The logic of institutional adaptation ensures that the application of New Quality Productive Forces in tax governance has established procedures and legal foundations to follow, promoting the orderly progression of tax governance transformation within the institutional framework.

4. Implementation Pathways for New Quality Productive Forces Empowering Digital Taxation Governance

Based on the analysis of the aforementioned driving mechanisms and internal logic, it is necessary to construct implementation pathways for New Quality Productive Forces empowering digital taxation governance from three dimensions: technological integration, institutional innovation, and organizational talent, thereby promoting the modernization of tax governance.

4.1 The Pathway of Technological Integration

4.1.1 Building an Integrated and Unified Smart Taxation Platform

A smart taxation platform serves as the technological hub for New Quality Productive Forces empowering tax governance. It is essential to integrate existing tax information systems and construct a unified platform that consolidates tax collection and administration, taxpayer services, risk prevention and control, and decision support. This platform should possess robust data integration capabilities, achieving seamless connectivity between internal tax data, cross-departmental data, and external third-party data. Furthermore, it should embed technological modules such as artificial intelligence and big data to enable intelligent processing of tax affairs. For example, through an intelligent tax

processing module, taxpayers can complete the entire online process from filing and payment to invoice application. Through an intelligent risk control module, the platform can monitor corporate tax risks in real time and issue automatic alerts. The construction of a smart taxation platform will realize the intensification and intelligentization of tax governance[8].

4.1.2 Deepening the Integrated Application Scenarios of Big Data Technology

The application scenarios of big data technology in tax governance need to be further expanded. On the one hand, it is essential to broaden the scope of data collection by incorporating online transaction data, social data, and logistics data into the collection system, thereby constructing a comprehensive data profile of taxpayers. On the other hand, it is necessary to enrich the dimensions of data analysis by conducting mining and analysis from multiple perspectives such as tax collection and administration, taxpayer services, and policy effects. For example, through the analysis of regional industry data, the findings can provide a basis for local governments to formulate industrial tax policies. Through the analysis of taxpayer credit data, differentiated tax management and services can be implemented. Furthermore, the integrated application of big data with other technologies can be explored, such as combining big data with blockchain to achieve digital management throughout the entire lifecycle of invoices.

4.1.3 Constructing a Secure and Efficient Security Support System

The prerequisite for technological integration is ensuring the security of data and systems. It is necessary to construct a comprehensive security support system encompassing network security, data security, and application security. Encryption technology, authentication technology, and access control technology should be adopted to ensure the confidentiality and integrity of tax data. A data backup and recovery mechanism should be established to enable rapid restoration in the event of system failures or data loss. The security operation and maintenance of the smart taxation platform should be strengthened, with regular security vulnerability scanning and patching to prevent cyberattacks and system paralysis. Only by constructing a secure and efficient security support system can a robust safety defense be established for the application of New Quality Productive Forces in tax governance.

4.2 The Pathway of Institutional Innovation

4.2.1 Improving Relevant Laws and Regulations Concerning Data Property Rights

The clarification of data property rights constitutes the foundation for data elements to realize their value in tax governance. It is necessary to accelerate the formulation of laws and regulations concerning the definition of data property rights, data transactions, and data security. These should clearly define the ownership, usage rights, and usufruct of tax data, and standardize data sharing and transaction practices between tax authorities and other entities. Concurrently, it is essential to refine the applicable rules of the Personal Information Protection Law within the tax domain, ensuring that taxpayer data is adequately protected during the processes of collection and use, thereby balancing the relationship between data utilization and privacy protection.

4.2.2 Innovating Tax Policies and Collection and Administration Systems Adapted to New Economic Forms

In response to new industries and new forms of business emerging under the digital economy, it is necessary to innovate tax policies and collection and administration systems. In terms of tax policy, it is necessary to research and formulate taxation rules for new tax categories such as data taxes and digital services taxes, clearly defining the scope of taxation, tax rates, and collection methods. Tax incentive policies should be optimized to support digital technology research and development and the growth of digital industries. In terms of the collection and administration system, it is necessary to establish collection and administration models suited to the platform economy and sharing economy, such as signing data sharing agreements with platform enterprises to enable tax collection from individual operators. Furthermore, it is essential to explore a "data-based tax collection and administration" approach, utilizing big data analysis to achieve precise collection and administration for new types of business forms[9].

4.2.3 Establishing Institutional Mechanisms for Fault Tolerance, Error Correction, and Incentive Compatibility

Institutional innovation requires the safeguard of fault tolerance and incentive mechanisms. A fault tolerance and error correction mechanism for tax governance innovation should be established,

whereby tolerance is granted for unintentional errors occurring during the exploration of technological applications and institutional practices, thereby encouraging tax authorities and their staff to innovate boldly. Concurrently, an incentive compatibility mechanism should be established, linking the effectiveness of tax governance innovation to departmental performance assessments and individual career advancement, thus stimulating the enthusiasm of all parties to participate in tax governance innovation. For example, commendations and rewards should be given to teams or individuals who propose innovative suggestions during the construction of the smart taxation platform and achieve significant results.

4.3 The Pathway of Organizational Talent

4.3.1 Promoting the Transformation of Tax Organizational Structure towards a Networked Model

The traditional hierarchical tax organizational structure is inadequate for meeting the demands of tax governance under New Quality Productive Forces. Therefore, it is necessary to promote its transformation towards a networked structure. Hierarchical barriers between departments should be dismantled, and a flattened, networked organizational structure should be constructed to enable the rapid transmission of information and the efficient execution of decisions. For example, a cross-departmental tax data governance center should be established to integrate resources within the tax authorities, such as those for collection and administration, auditing, and services, thereby achieving centralized data management and collaborative application. Simultaneously, collaborative network nodes should be established with external institutions such as universities and research institutes, for instance, by setting up a tax technology innovation laboratory to jointly develop new technologies for tax governance.

4.3.2 Cultivating Interdisciplinary Talent Proficient in Taxation, Data, and Technology

Talent constitutes a critical pillar for New Quality Productive Forces empowering tax governance. It is necessary to formulate a plan for cultivating interdisciplinary talent, fostering professionals who possess not only profound expertise in tax affairs but also mastery of digital technologies such as big data, artificial intelligence, and blockchain. This can be achieved through various methods, including internal training, external recruitment, and university-industry collaboration. For example, regular digital technology training sessions should be conducted for tax personnel, with technology experts invited to provide instruction. Collaboration with universities should be established to offer specialized academic programs in tax digital technology, cultivating professional talent in a targeted manner. High-end talent with cross-disciplinary backgrounds in taxation and technology should be recruited to enrich the talent pool of tax authorities.

4.3.3 Building an Organizational Culture of Continuous Learning and Innovation

Organizational culture constitutes the spiritual driving force for promoting innovation in tax governance. Authorities should build an organizational culture within tax departments that fosters continuous learning and encourages innovation. A strong innovative atmosphere should be cultivated by organizing activities such as tax governance innovation forums and case-sharing sessions. A knowledge-sharing platform should be established to encourage tax personnel to share experiences in technology application and innovative ideas for business processes. Innovative achievements should be promptly publicized and promoted, establishing role models of innovation. Such an organizational culture of continuous learning and innovation can stimulate the innovative awareness and exploratory spirit of tax personnel, thereby providing a steady stream of intellectual support for New Quality Productive Forces empowering tax governance.

5. Conclusion

The rise of New Quality Productive Forces presents significant opportunities and challenges for digital taxation governance. Multiple factors, including technology, data, and industry, constitute the core driving forces. Through the transmission across governance philosophy, technological application, business processes, and governance models, these forces propel the modernization of tax governance. Its internal logic is manifested as an organic unity of factor empowerment, process reengineering, precise services, governance collaboration, and institutional adaptation. To realize the effective empowerment of digital taxation governance by New Quality Productive Forces, it is necessary to construct implementation pathways from three dimensions: technological integration, institutional innovation, and organizational talent. Through measures such as building a smart taxation platform,

improving the tax system, and cultivating interdisciplinary talent, the digitalization, intelligentization, and collaboration level of tax governance can be comprehensively enhanced, thereby contributing to the modernization of national governance.

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