

A Study on the Theory and Path of New Productive Forces from the Perspective of Marxist Theory

Jiahui Liu

Beijing Information Science and Technology University, Beijing, 102206, China

ABSTRACT

The world is facing unprecedented tremendous changes. The key strategy to accelerate the birth of new productive forces and push the economy to a high-quality stage is the only way to conform to the trend of the times and achieve sustainable development. New quality productivity is an innovative component of humanistic economics in the new era. It not only covers profound theoretical foundation, but also contains rich practical significance. It is a new quality productivity theory that guides the economic transformation to a high-quality stage under the new development paradigm. Analyzing the theoretical exploration and practical path of new productive forces from the perspective of Marxism is of far-reaching significance for a deep understanding of this theory. It is not only a summary of historical experience, but also a strategic guidance for future development. New productive forces not only promote the leap of social productive forces, but also lay a solid foundation for China to achieve high-quality development.

KEYWORDS

New quality productivity; High-quality development; Theory; Practice

1 The concept of new quality productivity

The new productive forces emphasize the leading role of innovation in the development of productive forces, aiming to break away from traditional economic growth patterns and form an advanced productive force state characterized by high technology, high efficiency, and high quality. As a specific manifestation of advanced productive forces, the new productive forces represent the Chinese innovation and practice of Marxist theory of productive forces, and constitute the fundamental achievements resulting from the interdisciplinary integration and breakthroughs in scientific and technological innovation. The proposal of the concept of new productive forces reflects a profound insight into and theoretical innovation regarding the development trend of productive forces in current economic and social development. With the accelerating advancement of a new round of scientific and technological revolution and industrial transformation, the traditional mode of productive forces development, which comes at the cost of resource consumption and environmental pollution, has become unsustainable. There is an urgent need to seek a more efficient, greener, and more sustainable new model for the development of productive forces.^[1]It is against this background that the new productive forces have emerged, providing new impetus and guidance for economic and social development.

As a form of productive forces with scientific and technological innovation as its core driving force, the new productive forces are significantly different from traditional growth paths and demonstrate brand-new characteristics that meet the requirements of high-quality development. Such productive forces not only embody a high degree of integration in the digital era but also reveal new connotations of the development of productive forces. The proposal of the new productive forces highlights the important direction of leading industrial innovation through scientific and technological innovation, and further strengthens the core position of industrial upgrading in building new competitive advantages and gaining the initiative in development.

The core of the new productive forces lies in their "new" characteristics. This "newness" not only encompasses the comprehensive emergence of new technologies, new models, new industries, new fields, and new drivers but also represents a profound trend of social and economic transformation. Innovation, as the primary driving force leading development, has become a strategic support for building a modern economic system.^[2]By actively cultivating and developing strategic emerging industries and future industries, and promoting industrial upgrading through scientific and technological innovation, the formation of new productive forces will inject strong new impetus into the comprehensive advancement of Chinese modernization.^[3]The new productive forces emphasize taking scientific and technological innovation as the leading factor, and through breakthroughs in technological innovation, model innovation, management innovation, and other aspects, promote the transformation of productive forces from quantitative accumulation to qualitative improvement.

At the same time, the essence of the new productive forces lies in their improvement in "quality". This "quality" covers multiple dimensions such as material, quality, essence, and quality. From the material perspective, the new productive forces focus on fields such as new technologies, new materials, and new energy, committed to improving and enhancing productive forces; from the essential perspective, relying on innovation-driven development, the new productive forces

are fundamentally different from the excessive consumption of resources and energy by traditional productive forces, demonstrating a more efficient and sustainable development model. By focusing on the improvement of "quality", the new productive forces not only promote the leapfrogging of social productive forces but also lay a solid foundation for China to achieve high-quality development.

2 Theoretical origin of new productive forces

2.1 The dialectical relationship between productive forces and production relations

In Capital, it is emphasized that productive forces refer to the ability of humans to transform nature and society. Marx elaborated on the qualitative leap in productive forces during the replacement of workshop handicrafts by large-scale machine industry. This embodies the idea of productive forces transforming from an old qualitative state to a new one. For instance, the use of machinery significantly improved production efficiency, shifting commodity production from the low-efficiency mode of manual manufacturing to a high-efficiency mode dominated by machine production—an early manifestation of new qualitative changes in productive forces driven by technology. Similarly, new productive forces emerge under the impetus of technological revolutions, breaking the boundaries of traditional productive forces.

Capital also points out that the development of productive forces triggers changes in production relations. The development of new productive forces will likewise exert a profound impact on production relations. Productive forces determine production relations, while production relations react back on productive forces. The emergence of new productive forces is the result of the contradictory movement within productive forces themselves. When social productive forces develop to a certain stage, the existing mode of production, technological foundation, etc., can no longer meet social needs, thereby giving rise to new productive forces. For example, during the First Industrial Revolution, the replacement of manual labor by large-scale machine industry represented a qualitative leap in productive forces driven by technological innovation. After the emergence of new productive forces, production relations will adjust to adapt to their development. In the context of the new technological revolution, for instance, the rise of the sharing economy has transformed the traditional relationship of ownership and use of means of production. When new forms of productive forces such as the digital economy and intelligent manufacturing emerge, elements of production relations such as the original forms of production organization and labor division also need to be adjusted accordingly. In the digital platform economy, for example, the traditional hierarchical management model of enterprises has gradually been replaced by a more flexible relationship between platforms and workers.

2.2 Science and technology as the primary productive force

Marx stated that "science is also included in productive forces." New productive forces are highly dependent on innovative breakthroughs in science and technology. In contemporary times, high-tech fields such as artificial intelligence, biotechnology, and new energy technologies are key elements of new productive forces. The application of these technologies in production has transformed the input-output methods and production processes. Taking the new energy vehicle industry as an example, technological achievements such as battery technology and autonomous driving technology have spawned new modes of automobile production and use, embodying how science and technology drive the transformation of productive forces from traditional to new qualitative states.

Marx also argued that "science is also included in productive forces." Technological innovation is one of the core driving forces of new productive forces. In modern society, cutting-edge technological achievements such as gene editing and artificial intelligence have given birth to new productive forces. In the biopharmaceutical industry, for instance, gene editing technology has pushed drug research and production into a new qualitative state of precision medicine, drastically changing the productive force pattern of the traditional pharmaceutical industry—this aligns with Marx's assertion about the key role of science and technology in the development of productive forces.

2.3 Labor theory of value

Marxist labor theory of value emphasizes that labor is the source of value. The labor pattern under the new productivity has changed, including not only manual labor, but also complex mental labor, knowledge labor and innovative labor. For example, in the software development industry, the complex mental work of programmers creates software products with high added value. The process of creating value by this new form of labor is an important link in the creation of value of new productivity, which promotes the new growth of economic value in quality and quantity.

Marxist labor theory of value points out that labor is the source of value. With the development of new productive forces, the nature of labor is also changing. From the perspective of Marxism, the labor under the new productive forces includes more mental labor and creative labor. For example, in the fields of software development and virtual reality

content creation, workers' innovative thinking and knowledge accumulation play a key role in the process of value creation. This change of labor nature is an important aspect that distinguishes new productivity from traditional productivity, and it is also an important embodiment of labor value creation in its theoretical traceability.

3 The internal logic of new quality productivity

Marxist theory points out that the core of basic social contradictions is the contradiction between productive forces and production relations, which is the fundamental driving force to promote the progress of human society. As the decisive force of historical progress, productivity shapes the track of social progress in the traditional period, and it also breeds the transition of production mode in the new era. The proposition of new productive forces represents an innovative development of Marxist theory of productive forces and enriches the connotation of humanistic economics in the new era. As a representative of the transition of productivity level, it is dominated by scientific and technological innovation, and its essence still belongs to the category of Marxist productivity. With its unique connotation and characteristics of the times, it has become an important driving force for high-quality economic and social development.

3.1 Innovation is the core key to new productivity

Marx believes that the production of material materials is the foundation of the existence and development of human society, and the key to the transition of productive forces from quantity to quality lies in the development of science and technology. As the core driving force of the new era, new productivity highlights the leading role of scientific and technological innovation, gives birth to new industries, new formats and new models with the in-depth application of new technologies, reshapes production relations, improves the social system and injects development vitality. When the quantitative change of productivity reaches a certain stage, the qualitative change becomes inevitable, and the new productivity is realized through scientific and technological innovation, innovative allocation of production factors and industrial transformation and upgrading.

3.2 Talents are an important support for the development of new productive forces

Marxism emphasizes the free and all-round development of people, including the improvement of quality in many aspects. In the development of new productive forces, talents need to improve their scientific and technological literacy and innovation ability to adapt to the new technological environment. Innovation in the new era is the key driving force for economic and social development, and high-tech talents, as the core element, are crucial to new productivity. It is necessary to focus on talent cultivation and introduction, and provide a high-quality environment and opportunities. In terms of cultivation, change the educational mode, list innovative education as a hard indicator, increase investment in youth science education, and cultivate their abilities through various activities; The co-construction system of enterprises and institutions and scientific research institutions in universities accurately matches the needs. In terms of introduction, improve policies to attract high-level talents, provide generous treatment and services, strengthen intellectual property protection and achievement transformation, and create a good atmosphere. Young people also need to continuously improve their knowledge and skills to meet their needs.

3.3 Sustainable development is an important goal for developing new productive forces

Marx's thought of caring for nature and acting according to law embodies the concept of ecological sustainable development, and requires that environmental protection and ecological restoration should be paid attention to when developing new productive forces, so as to realize a virtuous circle of economy and environment. The development of new productive forces cannot sacrifice the environment and resources, but needs to achieve coordinated development of economy, society and environment. Sustainable development reflects a deep understanding and long-term planning of the future development direction. Global climate change and resource shortage make the traditional high energy consumption and high pollution model unsustainable, so we must turn to the road of resource conservation, environmental friendliness and social harmony. The development of new productive forces requires not only scientific and technological innovation, but also the unity of the benefits of the three.

4 Practical path of new quality productivity

4.1 Strengthen technological innovation capabilities and promote digital transformation

Marxism believes that productive forces are the decisive force of social development. With the continuous development of productive forces, especially the advent of the digital age, the society's demand for scientific and technological innovation is increasing day by day. This demand has become a powerful driving force to promote the development of science and technology, prompting people to constantly explore new technologies and methods to improve production efficiency and quality. By increasing investment in scientific research, improving the output efficiency of scientific and technological innovation, cultivating a number of high-tech enterprises with independent intellectual property rights, and promoting the transformation of scientific and technological achievements into productive forces.^[4] Enterprises need to increase investment in R&D, break through key core technologies and accelerate the industrialization of achievements; Universities and scientific research institutions should deepen cooperation with enterprises, promote the integration of Industry-University-Research, and improve the efficiency of achievement transformation. It is necessary to speed up the transformation and upgrading of traditional industries, cultivate strategic emerging industries and future industries, form new economic growth points, and at the same time optimize and integrate industrial chains and supply chains to enhance the overall competitiveness of industries. New productive forces are the embodiment of the new stage of productive forces development, highlighting the key role of science and technology, which is consistent with the power of science and technology in productive forces emphasized by Marx. We should strengthen the application of information technology, promote the digital and intelligent transformation of traditional industries, improve quality, reduce costs and promote upgrading. New productivity builds a modern core technology system through digital innovation, and digital economy, as an important driving force for high-quality development, is the core issue of its development. Technological innovation needs to break through departmental boundaries, form a complete social innovation system, and help national development.

4.2 Promote green development and strengthen coordinated development of the industrial chain

Promoting green development is an important path for the development of new productive forces. It is necessary to increase investment in environmental protection industry, develop clean energy and energy-saving and environmentally friendly technologies, promote sustainable utilization of resources, and realize a virtuous circle of economy and environment. We should thoroughly practice the concept of \Lucid waters and lush mountains are invaluable assets and carry out green development throughout the whole process, which is not only the demand of ecological protection, but also the driving force for productivity improvement. The key lies in promoting green technological innovation and advanced technologies, such as promoting green and low-carbon production with the help of information technology, biotechnology, and new energy technologies. Cultivating green industrial chains by building green factories, parks and supply chains can not only improve resource efficiency, reduce pollution, but also bring sustainable competitive advantages to enterprises. At the same time, we will guide the orderly transformation of resource-based industries to the direction of ecological and environmental protection, and realize the harmonious development of economy and environment.

Strengthening the coordinated development of the industrial chain is also critical. Marx's viewpoint of waste recycling has practical significance for promoting green technological innovation and developing circular economy. It is necessary to build a complete industrial chain, strengthen coordination and cooperation among all links, improve overall efficiency and competitiveness, and form new productivity. Strengthen inter-regional cooperation, promote resource sharing and complementary advantages, and promote cross-regional and cross-border flow and integration of productive forces. Reshape the industrial value chain and extend it to high value-added links such as R&D and design, marketing and promotion, and brand building. Realize product life cycle management, improve efficiency, reduce costs, improve experience through new technologies and new models, and promote the development of the industrial chain in a more sustainable direction.

4.3 Improve system construction and cultivate innovative talents

In terms of policy guidance, the government needs to formulate and improve relevant policies conducive to the development of new productive forces, provide policy support for innovation, and guide capital, technology, talents and other factors to gather in the field of new productive forces. At the same time, the government should also strengthen policy propaganda, raise the society's awareness of new productive forces, and create a social atmosphere conducive to innovation and development. The government should formulate more flexible and innovative science and technology policies, encourage enterprises to increase R&D investment, and support the R&D and application of new technologies and processes.^[5] To develop new productive forces, it is necessary to strengthen institutional guarantee and talent

support. It is necessary to improve the intellectual property protection system and stimulate the innovation enthusiasm of enterprises and individuals; Through fiscal and taxation policies such as tax reduction and preferential loans, we will reduce costs and increase efficiency for related enterprises. At the same time, strengthen market supervision, crack down on unfair competition and create a fair market environment; Simplify the examination and approval process, lower the entry threshold, and encourage extensive social participation.

In terms of talents, Marx's educational concept of combining productive labor with intellectual education and physical education is still of great significance. We should increase investment in science education for teenagers and cultivate innovative talents; Enterprises need to establish incentive mechanisms to attract and retain talents. It is also necessary to improve the training mechanism, promote scientific research institutions in colleges and universities to cultivate relevant talents, implement the open policy to attract outstanding talents at home and abroad, enhance workers' skills and innovation ability, and support the development of new productive forces.

About the Author

Jiahui Liu, female, master's degree, research interest : marxism, ideological and political direction.

References

- [1] Cheng Manli. Research on the impact of technological innovation on green transformation of manufacturing industry and its spatial linkage effect.. [D]. Hefei University of Technology, 2021.
- [2] Liu Gang. Construction of a modern economic system led by innovation[J].Theory and Modernization, 2017(5): 29-31.
- [3] Li Zheng, Liao Xiaodong. The "triple" logic of theory, history and reality in developing "new productive forces"[J]. Chinese Review of Political Economy, 2023,14(6):146-159.
- [4] Yu Hongguo. Research on technological innovation support in the development of county economy[D]. Shandong University, 2007.
- [5] Xu Xihua, Qian Hui. Constructing a government support system for technological innovation to promote sustainable economic development in Yixing[J]. Jiangnan Forum, 2008(1):15-17.