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Promoting High-Quality Development of Modern Logistics Industry with New Forms of Productive Forces

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Abstract: With the continuous development of science and technology and the deep integration of the global economy, new forms of productive forces have become an important force driving the transformation and upgrading of various industries in society. Against this backdrop, the modern logistics industry also urgently needs to take new forms of productive forces as its driving force to explore a path of high-quality development. While elucidating the connotation of new forms of productive forces, this article discusses the difficulties faced by the modern logistics industry in achieving high-quality development through new forms of productive forces, as well as effective countermeasures, to provide some references for relevant individuals and contribute jointly to the modernization and high-quality development of the modern logistics industry.

Keywords: New forms of productive forces; Modern logistics industry; High-quality development; Difficulties; Effective countermeasures

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1. Introduction

New forms of productive forces are advanced productive forces characterized by innovation playing a leading role, breaking away from traditional economic growth patterns and productive force development paths, featuring high technology, high efficiency, and high quality, and conforming to new development concepts. As an important basic industry for China's economic development, the ability of modern logistics to achieve high-quality development directly affects the country's economic development and competitiveness. However, considering the current situation, the logistics industry currently has certain deficiencies in technology application, talent reserve, industrial coordination, and innovation drive, which directly affect its high-quality development. In this regard, in the new era, we should also actively explore effective paths driven by new forms of productive forces to promote the transformation and upgrading of the modern logistics industry and drive its modernization and high-quality development [1].

2. Connotation of new forms of productive forces

For new forms of productive forces, they are an advanced productive force quality state with innovation as its core. Innovation is its unique hallmark, and quality excellence is its core idea [2]. It differs from previous productive force development methods and economic growth forms, featuring high efficiency, high technology, and high quality, and conforming to new development concepts. Its proposal is the Chinese practice and innovation of Marxist productive force theory, reflecting the fundamental achievements of scientific and technological innovation as well as cross-fusion breakthroughs. New forms of productive forces take the leap in labor materials, personnel, objects, and optimized combinations as their basic connotation, pursuing the full improvement of total factor productivity, and belonging to the concrete manifestation of modern high-level productive forces [3].

3. Analysis of difficulties in achieving high-quality development of the modern logistics industry through new forms of productive forces

3.1. Bottlenecks in technology application

Currently, we have entered the digital era, with technologies such as big data and artificial intelligence being widely used. While the logistics industry relies on these technologies for innovative development, it has also encountered bottlenecks in technology application. Firstly, the modern logistics industry involves diversified and complex business scenarios, which have high requirements for the adaptability of new technology applications. However, the current related technical solutions often cannot meet the specific needs of the development of this industry, which hinders the development of the logistics industry under new forms of productive forces. Secondly, the application of new technologies means significant capital investment, which is often unaffordable for some small and medium-sized logistics enterprises [4]. In addition, in the digital era, the logistics industry faces a vast amount of data information. How to ensure the security of this data information and protecting customer privacy is also one of the technical difficulties in the current development of the logistics industry.

3.2. Shortage of talent reserve

Talent is the primary resource, and the transformation and development of the modern logistics industry cannot be separated from the support of high-quality talent. However, the current situation is that few composite logistics talents are skilled in professional skills and master technologies related to new forms of productive forces. At the same time, the current talent structure of the logistics industry has obvious traditional characteristics, and the new technology application ability of relevant personnel is insufficient, which also affects the high-quality development and modernization transformation of the logistics industry [5]. In addition, in terms of talent cultivation, institutions of higher learning with logistics management majors have failed to fully base themselves on the needs of new forms of productive forces and deeply grasp the specific requirements for talents in the modern logistics industry, which also affects the quality of logistics talent cultivation and leads to talent shortage problems in this industry [6].

3.3. Obstacles in industrial coordination

As an intermediate link connecting upstream and downstream industries, industrial coordination is a key factor for the high-quality development of the modern logistics industry. However, in the context of new forms of productive forces, the logistics industry currently faces coordination obstacles in various links, such as

distribution, transportation, and warehousing, such as unreasonable resource allocation and poor information circulation, which directly affect its transformation and development [7]. In addition, the logistics industry also has certain deficiencies in coordinating and cooperating with upstream and downstream industries, making it difficult to achieve comprehensive and holistic coordination, which also limits the in-depth development and wide application of new forms of productive forces in this industry.

3.4. Lack of innovation drive

Innovation is the primary driving force for development. However, the current logistics industry and enterprises still need to further enhance their innovation drive. It can be seen that many logistics enterprises still adopt traditional operating modes and do not focus on the application and exploration of new modes, technologies, and systems, which directly affects their industry competitiveness and industrial development vitality and hinders the industrial transformation and development under new forms of productive forces [8]. Therefore, in the new era, how to explore an innovative development path based on new forms of productive forces and improving the innovation drive mechanism is also an urgent problem to be solved by the modern logistics industry.

4. Effective countermeasures for high-quality development of modern logistics industry with new forms of productive forces

4.1. Strengthening technology empowerment to break through application barriers

For new forms of productive forces, technology empowerment is its core driving factor. Facing the current technology application bottlenecks faced by the logistics industry, all parties must constantly strengthen technology empowerment, break through application barriers, and let technology empower the implementation and development of new forms of productive forces, laying a solid foundation for the high-quality development of the logistics industry.

Firstly, relevant government departments should increase policy support for special research and development in logistics, such as establishing special funds to promote technology application and innovation in the logistics industry. For example, relevant funds can be established to encourage cooperation between logistics enterprises and professional institutions or universities for industry-academia-research integration, developing and applying more advanced and practical new technologies to continuously improve the service quality and operational efficiency of the logistics industry.

Secondly, for logistics enterprises, they should actively introduce technologies such as artificial intelligence and big data into all aspects of their business processes based on the background of the new era, increasing investment and research and development efforts to develop new businesses and processes based on new technologies, thereby achieving transformation and development goals [9]. For example, based on new trends in the logistics industry, actively introducing big data and artificial intelligence into warehousing, transportation, and other links, developing modules such as intelligent warehousing monitoring and management, big data transportation route analysis, and artificial intelligence customer service, using new technologies to promote industrial upgrading and modernization transformation, and thus better achieve high-quality development goals. Furthermore, when applying new technologies, costs should be controlled.

On the one hand, relevant government departments can provide policy, tax, and other incentives or subsidies to stimulate enterprises' enthusiasm for new technology application while reducing their application costs. On the other hand, enterprises should also focus on optimizing new technology application schemes and controlling

cost-effectiveness to reduce technology procurement and maintenance costs [10].

In addition, facing the information data security requirements in the digital era, logistics enterprises must attach great importance, establish a perfect data security guarantee mechanism, focus on the introduction of network security technologies and related system software, strengthen data encryption levels, scientifically optimize data backup and access mechanisms, ensuring that data in all logistics links is secure and stable, eliminating concerns of customers and upstream and downstream enterprises about security, thereby continuously improving their service quality and making steadier progress on the path of new forms of productive forces application and high-quality development.

4.2. Focusing on talent cultivation to consolidate the foundation for development

In the process of the development of the modern logistics industry, talent is the key support for the implementation of new forms of productive forces. In this regard, institutions of higher learning should fulfill their role as a "talent cultivation base," optimizing curriculum settings based on new trends, backgrounds, and requirements of the contemporary logistics industry, introducing technical courses based on new forms of productive forces such as big data analysis, Internet of Things application, and artificial intelligence application, thereby improving the comprehensive quality of professionals so that they not only master good professional skills but also understand the promotion and application of new forms of productive forces [11].

Secondly, for logistics enterprises themselves, they should also strengthen the cultivation of high-quality talents, especially by actively conducting targeted internal training based on the connotation requirements of new forms of productive forces. For example, relevant experts can be invited to give guidance lectures, bringing advanced knowledge and technology to employees, continuously improving their technical literacy and comprehensive quality. Meanwhile, in order to better attract and retain talent, logistics enterprises need to optimize and innovate their salary and benefits as well as talent development frameworks. For example, a corresponding composite talent introduction mechanism can be designed, and the employee assessment mechanism can be optimized, rewarding those who perform excellently and can adapt to the new era and requirements; optimizing the talent development mechanism, providing transparent promotion and development channels for internal employees, as well as corresponding training services and career planning services, thereby continuously stimulating employees' sense of responsibility and self-improvement awareness and injecting more vitality into the application and development of new forms of productive forces.

Furthermore, both schools and enterprises should actively promote the "school-enterprise cooperation" model, relying on their respective advantages in talent and funds to achieve resource integration goals, jointly designing talent training programs, establishing professional practical training bases, and innovating practical training modes to provide better and more comprehensive educational services for logistics majors. For example, schools and enterprises can co-create textbooks and teaching materials, design talent training programs based on the requirements of new forms of productive forces, and build a "digital logistics professional practical training base" to provide students with a modern and professional practical training platform, strengthening their practical operation ability and comprehensive quality, further improving the quality of talent cultivation, and meeting enterprises' talent needs [12].

4.3. Promoting industrial coordination and optimizing resource allocation

In the context of new forms of productive forces, the development of the logistics industry should focus on the construction of an industrial coordination system, continuously optimizing resource allocation to achieve higher-

quality development goals. Specifically, enterprises can accelerate the construction of industrial coordination platforms, fully integrating all modules such as warehousing, distribution, and transportation, while closing the distance with upstream and downstream entities and strengthening industry stickiness. For example, a perfect data information sharing mechanism can be established to enable sellers, suppliers, manufacturers, etc., to obtain market feedback promptly, thereby better adjusting plans and schemes to achieve high-quality material production, logistics distribution, transportation, and sales, so that the operation quality and efficiency of the entire industrial chain can be comprehensively improved [13].

Secondly, internal and external connections and cooperation should be strengthened to promote the high-quality development of the logistics industry. Specifically, enterprises can actively carry out cooperation in joint distribution, combined transportation, etc., achieving win-win goals through cooperation, effectively reducing intermediate costs, and improving transportation efficiency. Meanwhile, enterprises, especially upstream and downstream enterprises, should build a good strategic cooperation community, jointly developing new technologies and exploring new areas based on market development. For example, enterprises can cooperate with some scientific and technological institutions to develop more advanced and convenient logistics application technologies; they can cooperate with manufacturers to continuously innovate product production modes and optimize packaging design, thereby promoting the convenience and effectiveness of logistics transportation.

In addition, at the level of resource allocation, enterprises should actively introduce new technologies to ensure scientific allocation and precise analysis of logistics resources. In particular, warehousing schemes, transportation schemes, etc., should be scientifically arranged based on different situations in different periods and regions to ensure effective resource utilization and improve the operating efficiency of the entire logistics chain, thereby promoting the high-quality development of the logistics industry while ensuring the innovative development and transformation and upgrading of enterprises in various industrial chains [14].

4.4. Stimulating innovation vitality and opening up new development paths

Facing the new trends and backgrounds of logistics industry development under new forms of productive forces, logistics enterprises should actively explore innovative development paths, apply new technologies, develop new products, and apply new models, thereby better implementing the high-quality development goals. Firstly, based on the background of the development of the modern logistics industry, it is necessary to clarify the concept of innovative development, regularly organize and carry out activities such as seminars and exchange meetings, strengthen the internal employees' cognition of innovative development, and cultivate their innovative consciousness. On this basis, it is necessary to change the traditional operation mode, introduce new planning and development models based on the connotation of the development of new-quality productive forces, and formulate new goals and systems, thereby establishing an innovative development framework and providing guarantees for high-quality development.

Secondly, it is necessary to actively explore the path of innovative development and new routes. Here, enterprises should set up special funds to explore the paths of service innovation, business innovation, and technological research and development in the background of the development of new-quality productive forces. For example, they can set up special research funds to explore intelligent warehousing, unmanned distribution technologies, or develop new fields such as cross-border e-commerce and cold chain logistics, etc., to ensure the depth of their innovative development and the breadth of transformation and upgrading.

Furthermore, it is necessary to explore new industrial development models based on new technologies and new platforms [15]. For instance, enterprises should combine technologies such as the Internet and big data to

carry out innovative businesses such as platform-based operation of logistics and supply chain financial services. Through innovation-driven approaches, utilize new-quality productive forces to enhance the core competitiveness of enterprises, expand market share, thereby enabling better application and implementation of new-quality productive forces, and promoting better transformation and development of the modern logistics industry.

5. Conclusion

In general, in the new era, facing the demands for the enhancement and development of new forms of productive forces, the modern logistics industry urgently needs innovation and reform. In this regard, all parties should innovate and optimize based on the development dilemmas of the logistics industry under new forms of productive forces, constantly utilizing new ideas and methods to shape a new system for the development of the logistics industry. Especially, emphasis should be placed on strengthening technology empowerment to break through application barriers, focusing on talent cultivation to consolidate the foundation for development, promoting industrial collaboration to optimize resource allocation, and stimulating innovation vitality to open up new development paths. By doing so, the operational efficiency and service quality of the logistics industry can be continuously improved, safeguarding the modernization transformation and high-quality development of the modern logistics industry.

Disclosure statement

The author declares no conflict of interest.

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