Global Academic Frontiers, Vol. 3, Issue 2, 2025, pp. 28-37 Print ISSN 2995-5688 Online ISSN 2995-570X
DOI: https://doi.org/10.5281/zenodo.15581965

E-commerce Empowering the Digital Transformation of Small and Medium-sized Enterprises Driven by New Quality Productivity

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Received 14 May 2025; Accepted 2 June 2025; Published 3 June 2025

Abstract: This article explores the impact of e-commerce on the digital transformation of small and medium-sized enterprises driven by new quality productivity. It is analyzed that the digital transformation of small and medium-sized enterprises is confronted with predicaments such as technological application gaps, inefficient allocation of production factors, and weak industrial collaboration. Elaborate on the paths by which e-commerce helps small and medium-sized enterprises break through the predicament of transformation through mechanisms such as technological innovation, factor reorganization and industrial upgrading. Through case analysis, the practical promoting effects of e-commerce on enhancing the technological application capabilities of small and medium-sized enterprises, optimizing the allocation of production factors, and strengthening the level of industrial collaboration are demonstrated. Put forward policy suggestions such as strengthening technological infrastructure, promoting the marketization of factors, and building industrial communities to remove obstacles for the digital transformation of small and medium-sized enterprises and facilitate their high-quality development.

Keywords: New quality productivity, E-commerce, Small and medium-sized enterprises, Digital transformation

1. The integration background of new quality productivity and e-commerce

1.1 Research background

New quality productivity is the core driving force that leads with scientific and technological innovation and significantly enhances total factor productivity. It reshapes the competitive landscape through disruptive technologies and breakthroughs in cutting-edge industries [1], and has been identified by the Central Committee of the Communist Party of China as the decisive force for high-quality development. The 2023 Central Economic Work Conference listed it as a national strategic task for the first time. The "Guiding Opinions on Developing New Quality Productive Forces and Promoting High-Quality Development" clearly requires the construction of a modern industrial system with deep integration of "digital technology and the real economy". The 2024 Government Work Report of The State Council further deployed the breakthrough actions for future industries such as biomanufacturing and aerospace technology. The National Development and Reform Commission, in collaboration with multiple ministries and commissions, introduced special policies to strengthen the "dual-wheel drive" of scientific and technological innovation and institutional innovation, marking that new quality productivity has been deeply integrated into the top-level design of national governance.

E-commerce, as the core carrier of the digital economy, its billion-level user traffic constitutes a new type of infrastructure for resource allocation [2]. The State Council has entrusted e-commerce platforms with the function of being the "main channel for the marketization of cutting-edge technologies" (2024), and the "Future Industry Consumption Cultivation Plan" led by the Ministry of Commerce has positioned traffic as the core hub for technology transformation. The policy system focuses on activating the efficiency of traffic flow: The State Administration for Market Regulation builds quality control standards for emerging industries based on real-time consumption data, the customs establishes a "traffic flow traceability and customs clearance" mechanism to ensure the cross-border circulation of special commodities, and the Ministry of Finance even directs government procurement resources to innovative products empowered by traffic flow. E-commerce traffic, through a triple mechanism of precise reach, scale verification, and cross-border collaboration, has become a strategic fulcrum for the country to cultivate new quality productivity.

The deep integration of new quality productivity and e-commerce is essentially the institutional coupling of technological innovation and market transformation [3]. The Central Committee of the Communist Party of China has promoted the connection between the industrial Internet identification system and the e-commerce supply chain through six national-level demonstration zones including Zhejiang (approved by The State Council in 2023). The Ministry of Science and Technology's "First Release Channel for Hard Technology Products" has achieved the instantaneous transformation of achievements such as quantum chips by relying on e-commerce traffic. This integration has restructured the "R&D - market" path: technological breakthroughs are verified on a large scale through e-commerce traffic, and market feedback drives technological iteration in reverse, forming a closed loop of "innovation - application". The "Regulations on Promoting the Digital Economy" (2024) issued by The State Council has listed e-commerce platforms as the core of new quality productivity organizations, marking that the integration of the two has been elevated from industrial practice to a core component of the national strategic system, providing new institutional supplies for modernization.

1.2 Research significance

Under the backdrop of the accelerated advancement of the new quality productivity strategy, small and medium-sized enterprises (smes) are confronted with structural predicaments in their digital transformation: The gap in technology application restricts enterprises from the shortage of funds and talents, making it difficult for them to master cutting-edge technologies such as artificial intelligence, thus falling into a vicious cycle of "maintaining operations with basic software and lacking innovation breakthroughs". The inefficient allocation of production factors is manifested as a serious insufficiency of digital investment, the continuous loss of professional talents, and data silos hindering resource integration, resulting in the transformation process lagging behind the speed of market iteration. Weak industrial collaboration is due to the lack of information barriers and standards, resulting in sluggish supply chain responses and difficulty in forming cluster effects. E-commerce, with its all-domain traffic aggregation and real-time data-driven capabilities, is becoming the key to breaking the deadlock - by precisely matching innovative resources to lower the threshold for technology acquisition, relying on the transaction credit system to reconstruct the financing model, and leveraging the platform ecosystem to connect the data loop of the industrial chain. This paradigm of reshaping the transformation path with the traffic economy holds core research value for achieving the inclusive implementation of new quality productivity in small and medium-sized enterprises.

2. The predicament of Digital Transformation of Small and Medium-sized Enterprises from the Perspective of New Quality Productivity

2.1 Technological application fault

The digital transformation of small and medium-sized enterprises is Mired in a structural predicament of a negative cycle of talent and capital and the lack of a technology adaptation system. A typical example is the Weihai fishing gear enterprise "Qiaoyufu", which had a technical team formation cost as high as 34% of its revenue in the early stage of transformation (less than 8% for traditional enterprises). The high investment pressure forced the enterprise to rely on basic software for a long time. Form a vicious circle of "low technological investment - low gross profit - even lower investment"; The difficulty in technology adaptation further exacerbates the risks of transformation. A 2024 survey by the Ministry of Industry and Information Technology revealed that 79% of small and medium-sized enterprises lack tools for assessing technology maturity. Meanwhile, the insufficient collaboration among industrial clusters restricts the release of scale effects. Although the Feicheng Garment Industry Belt has achieved the integration of design-production data through the HITEX industry and trade platform, which has shortened the order delivery cycle of Haiyidisi Company by 15 days, However, only 12% of the industrial belts across the country have established such collaborative platforms. The majority of small and medium-sized enterprises are still trapped in "digital islands" and find it difficult to break through the dual squeeze of resource constraints and technological iteration.

2.2 The allocation of production factors is inefficient

The digital transformation of small and medium-sized enterprises is constrained by the structural contradictions in the allocation of production factors. The core problems are reflected in three dimensions: misallocation of funds, talent gap and system fragmentation. At the level of capital allocation, the narrow financing channels have led to a serious insufficiency in digital investment. A survey by the People's Bank of China shows that over 80% of small and medium-sized enterprises are facing difficulties in loan approval, and only less than 10% of the funds they obtain are used for upgrading digital infrastructure. Most of them are forced to invest in traditional links such as raw material procurement to survive. A typical case is that although Jinjiang Huayu Weaving Company urgently needed the flexible production capacity of "fast delivery and multiple varieties", it was once unable to connect to the industrial Internet platform due to the initial investment gap in digital equipment. It was not until the government pilot fund injection party completed the automation transformation and achieved a 300% increase in order response efficiency.

The shortage of talents further intensifies the resistance to transformation. Due to the lack of salary competitiveness and training systems, small and medium-sized enterprises find it difficult to attract highly skilled digital talents, and the technical adaptability of their existing employees is weak. A survey by the Ministry of Industry and Information Technology pointed out that 79% of enterprises are trapped in the predicament of "not knowing how to transform" due to the lack of compound talents. For instance, a certain mechanical manufacturing enterprise in Hebei Province, lacking industrial data analysts, was unable to effectively utilize equipment sensor data, resulting in a production line fault prediction accuracy rate 40% lower than the industry average and an additional annual maintenance cost loss of over 2 million yuan.

2.3 Weak industrial synergy

Small and medium-sized enterprises have many shortcomings in industrial collaboration, and these shortcomings are clearly reflected in both the upstream and downstream of the industrial chain and within industrial clusters. Take the new energy battery recycling industry as an example. Due to the consideration of protecting business secrets, enterprises are often reluctant to share battery usage data, resulting in poor information communication between the upstream and downstream of the industrial chain and the absence of a data sharing mechanism. This kind of information barrier not only affects the collaborative efficiency of the industrial chain, but also makes enterprises prone to information lag and deviation in links such as order processing and inventory management, making it difficult to match market demands and increasing operating costs.

Within industrial clusters, enterprises lack the awareness and platform for collaborative cooperation. Digital standards are not unified, and system compatibility is poor, making it difficult to achieve resource sharing and complementary advantages. For instance, the industrial clusters of small and medium-sized enterprises in our country generally have problems such as weak core competitiveness and low industrial collaboration and collaborative innovation capabilities. Take the electronic information industry in Nanchang as an example. Although the local area has promoted the collaborative innovation of the industrial chain by introducing scientific research platforms and carrying out cooperative projects, small and medium-sized enterprises still face challenges in digital transformation, and the overall collaborative efficiency still needs to be improved. These problems have restricted the development space of small and medium-sized enterprises in the market and urgently need to be solved through efforts in multiple aspects such as institutional design, technology application and platform construction.

3. How does e-commerce empower new quality productivity

3.1 Technological innovation mechanism: Reconstructing productivity tools

E-commerce provides advanced information technology and tools for small and medium-sized enterprises, promoting the renewal and optimization of productivity tools [4]. With the help of e-commerce platforms, small and medium-sized enterprises can obtain big data, cloud computing and other technologies at a lower cost, thereby accurately grasping market demands, optimizing production processes and enhancing innovation capabilities. Meanwhile, the online design software, supply chain management systems and other tools provided by e-commerce platforms help small and medium-sized enterprises achieve digital transformation in production, sales, management and other links, and improve operational efficiency.

3.2 Factor reorganization mechanism: Optimize resource allocation

E-commerce helps small and medium-sized enterprises break through the constraints of traditional factors by optimizing the allocation of funds, talents and market resources [5]. In terms of funds, e-commerce platforms have expanded the financing channels for small and medium-sized enterprises and alleviated their financing difficulties. By optimizing supply chain management, small and medium-sized enterprises can reduce inventory costs and increase the capital turnover rate. In terms of talent, e-commerce platforms have broken geographical restrictions, enabling small and medium-sized enterprises to attract digital talents more widely and enhance employees' skills through online training. In terms of market resources, e-commerce platforms have expanded the market space for small and medium-sized enterprises, enabling them to break through geographical restrictions and directly reach a broader market, thereby achieving the optimal allocation of resources.

3.3 Industrial upgrading mechanism: Building a digital ecosystem

E-commerce promotes the industrial upgrading of small and medium-sized enterprises by integrating industrial chain resources and building a coordinated industrial ecosystem [6]. On the one hand, e-commerce platforms connect enterprises in the upstream and downstream of the industrial chain, promoting information sharing, collaborative innovation and resource integration, and enhancing the overall competitiveness of the industrial chain. For instance, the Feicheng Garment Industry Belt has achieved data integration between design and production through the HITEX industry and trade platform, significantly shortening the order delivery cycle. On the other hand, e-commerce platforms promote the development of small and medium-sized enterprises towards digitalization and intelligence, enhancing production efficiency and innovation capabilities. In addition, e-commerce platforms also provide small and medium-sized enterprises with channels for brand building and marketing, helping them enhance brand awareness, expand market share, and thus occupy a more favorable position in market competition.

4. Case Analysis: The Effectiveness of E-commerce in Empowering Digital Transformation

4.1 Efficiency Improvement - Taking Semir Clothing as an Example

In the process of empowering the digital transformation of small and medium-sized enterprises, e-commerce has significantly enhanced the operational efficiency of the entire enterprise chain by deeply reconstructing the supply chain, marketing chain and management processes. Take Semir, a leading casual wear group in China (002563.SZ), as an example. Before its digital transformation, the revenue from franchisees accounted for as high as 68%, and its traditional operation model faced many efficiency bottlenecks. To break through this predicament, Semir Clothing actively embraces e-commerce technology and has taken a series of innovative measures. Firstly, the company established a "full-domain platform", successfully integrating the inventory information of 8,000 offline stores and online malls, achieving real-time sharing and collaborative management of inventory both online and offline, and significantly enhancing the inventory turnover rate and order response speed. Secondly, with the help of Alibaba Cloud's powerful data middle platform technology, Semir has achieved precise demand forecasting, with its prediction error rate controlled within 8%. This improvement in accuracy enables enterprises to plan production and procurement more scientifically, reducing the risks of inventory overstock and stockouts. In addition, the intelligent replenishment system has been fully covered by all franchisees, achieving a 100% coverage rate by 2023. This system can automatically trigger the replenishment process based on sales data and inventory levels, ensuring that franchise stores always have sufficient product supplies, thereby enhancing overall sales efficiency and customer satisfaction. Through these e-commerce empowerment measures, Semir Clothing has not only optimized its internal management processes but also enhanced the closeness of cooperation with franchisees, achieving a full-chain efficiency improvement from production to sales. It has become a typical case of e-commerce empowering the digital transformation of small and medium-sized enterprises.

Index	2019	2023	Increase amplitude	Data sources
Number of days' sales in inventory	183days	103days	↓43.7%	2023 Annual Report, Page 21
Order delivery timeliness	7days	2.5days	↓64.3%	Enterprise ESG Report P.33

Slow-moving sales rate	19%	6%	↓68.4%	Investor Research Summary

Note: The data is quoted from Semir Clothing's public annual report and the official cooperative research project "White Paper on Digitalization of the Clothing Industry".

4.2 The characteristics of new quality productivity are prominent - taking Sany Heavy Industry as an example

In the wave of digital transformation driven by e-commerce, many small and medium-sized enterprises have demonstrated typical characteristics of high-quality productivity, among which the leap in technological innovation is particularly remarkable. Take Sany Heavy Industry (600031.SH) as an example. As a leading enterprise in the construction machinery industry, Sany Heavy Industry has successfully achieved in-depth implementation of digital transformation through an innovative e-commerce model. The cross-border e-commerce platform Machmall for construction machinery it has created not only broadens the international market channels but also, through AI remote operation and maintenance technology, reduces the online diagnosis response time for equipment failures to within 15 minutes. Compared with the traditional model's response time of over 4 hours, the efficiency improvement is extremely significant. In addition, Sany Heavy Industry has been actively building digital twin factories. By leveraging the order data from the 1688 Industrial Products platform, it has achieved a customized production proportion as high as 35%. This not only meets the personalized demands of customers but also enhances the company's market competitiveness. From a data perspective, Sany Heavy Industry's R&D investment in 2023 accounted for 6.2%, far exceeding the industry average of 2.1%, and it ranked first in the industry in terms of the number of patents. These data fully confirm Sany Heavy Industry's high regard for technological innovation during its digital transformation process, as well as its outstanding achievements in achieving the deep integration of technology and business through e-commerce platforms, making it a model for the digital transformation of small and medium-sized enterprises driven by new quality productivity.

E-commerce, through full-chain digital penetration and the cultivation of new productive factors, has deeply restructured the value creation logic of small and medium-sized enterprises, promoting their transformation from traditional development models to a high-quality development path driven by innovation. Firstly, e-commerce has triggered an efficiency revolution. By integrating the supply chain, optimizing marketing processes and enhancing management efficiency, small and medium-sized enterprises have achieved a significant improvement in operational efficiency, breaking through the constraints of traditional linear growth. Secondly, e-commerce has facilitated a paradigm shift, prompting small and medium-sized enterprises to move from the traditional model that relies on labor and capital to a new model driven by technology, data and innovation. This transformation not only enhances the core competitiveness of enterprises but also lays a solid foundation for their sustainable development. Finally, e-commerce has driven the reconstruction of the ecosystem. Small and medium-sized enterprises have formed a symbiotic system of "micro and small entities - digital ecosystem" in the platform economy. Through in-depth collaboration with platforms, suppliers, consumers and other parties, they have achieved the optimal allocation of resources and the co-creation and sharing of value. This series of changes has enabled small and medium-sized enterprises to achieve exponential operational optimization in the digital economy era, unleashing huge development potential and becoming a new engine driving high-quality economic growth.

5. Policy Recommendation: The e-commerce path for developing new quality productivity

5.1 Strengthen technological infrastructure

Driven by the new quality of productivity, the digital transformation of small and medium-sized enterprises empowered by e-commerce cannot do without solid technological infrastructure support [7]. The government should increase investment in the construction of information and communication technology infrastructure, accelerate the layout and improvement of new infrastructure such as 5G networks and data centers, ensure that small and medium-sized enterprises can obtain high-speed, stable and cost-effective network services, thereby guaranteeing the smooth operation of e-commerce platforms and the efficient transmission and processing of data. At the same time, research institutions and enterprises are encouraged to jointly carry out research and development on key technologies for e-commerce, such as the application of artificial intelligence algorithms in precision marketing and blockchain technology to ensure transaction security, providing technical solutions for small and medium-sized enterprises and lowering the technical threshold for their digital transformation. In addition, a complete technical training system should be established to provide e-commerce related technical training for employees of small and medium-sized enterprises, enhance their understanding and application ability of new technologies, enable enterprises to better utilize technological infrastructure to promote their own digital transformation, and thereby promote the development of new quality productivity.

5.2 Promote the marketization of factors

The market-based allocation of factors is of vital importance for the digital transformation of small and medium-sized enterprises driven by e-commerce under the impetus of new quality productivity. The government needs to further deepen the reform of factor markets such as land, labor, capital, technology and data, break the institutional and mechanism obstacles to factor flow, and enable small and medium-sized enterprises to obtain various factor resources more conveniently. In terms of land elements, flexible supply methods such as flexible-term transfer and lease-to-own can be explored to provide land support for small and medium-sized enterprises to build e-commerce industrial parks or warehousing and logistics facilities. In terms of the labor force factor, improve the talent introduction policy, attract e-commerce professionals to flow to small and medium-sized enterprises, and at the same time strengthen vocational education and skills training to enhance the matching degree between the labor force and the demands of digital transformation. In terms of capital elements, establish and improve a multi-level capital market, guide financial institutions to increase credit support for the digital transformation of small and medium-sized enterprises, and encourage venture capital, angel investment, etc. to participate in the innovative development of small and medium-sized enterprises. In terms of technological elements, improve the intellectual property protection system, promote technology transactions and the transformation of achievements, encourage small and medium-sized enterprises to increase investment in research and development, and obtain advanced technologies to facilitate transformation. In terms of data elements, we should accelerate the construction of basic systems such as data rights confirmation, pricing and trading, promote the open sharing and compliant circulation of data resources, enable small and medium-sized enterprises to fully utilize data elements to enhance the scientific nature of decision-making and operational efficiency, stimulate the digital transformation vitality of small and medium-sized enterprises through market-based allocation of factors, and promote the cultivation and expansion of new quality productivity.

5.3 Build an industrial community

Building an industrial community is an effective way to achieve the digital transformation of small and medium-sized enterprises empowered by e-commerce under the drive of new quality productivity. The government should actively guide small and medium-sized enterprises to establish close cooperative relations with large enterprises, e-commerce platforms, research institutions and other entities, and form an industrial community of

coordinated development. Within the industrial community, large enterprises can leverage their technological, financial and market advantages to provide services such as technical support, resource sharing and market channel expansion for small and medium-sized enterprises, helping them rapidly enhance their digitalization level. E-commerce platforms leverage the integration advantages of the platform economy to provide one-stop services such as online sales, brand promotion, and big data analysis for small and medium-sized enterprises, helping them expand their market space. Research institutions focus on the research and development and innovation of common technologies, providing cutting-edge technological support for enterprises within the industrial community and promoting industrial upgrading. Meanwhile, the government promotes resource sharing and complementary advantages within the industrial community by formulating industrial policies and building platforms for exchanges and cooperation, creating a favorable industrial ecological environment. This enables small and medium-sized enterprises to better leverage e-commerce to achieve digital transformation within the industrial community, enhance the overall competitiveness of the industry, and accelerate the formation and development of new quality productivity. Promote high-quality development of the regional economy.

6. Conclusion and prospect

6.1 Research conclusions

This study focuses on the impact of e-commerce on the digital transformation of small and medium-sized enterprises driven by new quality productivity. Through in-depth analysis of relevant theories and practical cases, a series of significant conclusions have been drawn. First of all, the emergence of new quality productivity has brought new opportunities and challenges to e-commerce and the digital transformation of small and medium-sized enterprises. New quality productivity emphasizes features such as innovation, greenness, and collaboration, which prompts e-commerce platforms to constantly innovate service models and technological applications to better meet the needs of small and medium-sized enterprises during their digital transformation process. Meanwhile, small and medium-sized enterprises also need to actively embrace the concept of new quality productivity, leverage the resource and technological advantages of e-commerce platforms, enhance their digital capabilities, and achieve transformation and upgrading. Secondly, e-commerce has played a significant role in empowering the digital transformation of small and medium-sized enterprises in multiple aspects. It not only broadens the market channels for small and medium-sized enterprises and reduces their operating costs, but also helps them enhance the scientific nature of decision-making and operational efficiency through technological means such as big data and artificial intelligence, thereby strengthening their market competitiveness. In addition, e-commerce has also promoted collaborative cooperation among small and medium-sized enterprises, facilitated the formation and development of industrial clusters, and provided a favorable external environment for the digital transformation of small and medium-sized enterprises. Finally, the government plays a crucial role in promoting the development of new quality productivity and facilitating the digital transformation of small and medium-sized enterprises through e-commerce. Through measures such as strengthening technological infrastructure, promoting the marketization of factors, and building industrial communities, the government can create favorable conditions for the digital transformation of small and medium-sized enterprises, stimulate market vitality, accelerate the cultivation and expansion of new quality productive forces, and thereby promote the high-quality development of the regional economy.

6.2 Future direction

Although this research has achieved certain results in the field of new quality productivity and e-commerce empowering the digital transformation of small and medium-sized enterprises, there are still some directions that

need further in-depth study. Future research can be carried out from the following aspects. First of all, with the continuous advancement of technology and changes in the market environment, the connotation and extension of new quality productivity are also constantly expanding. Therefore, it is necessary to continuously monitor the development trends of new quality productivity and deeply explore its differentiated impact mechanisms on the digital transformation of small and medium-sized enterprises empowered by e-commerce in different industries and regions, so as to provide more targeted guidance for policy-making and enterprise practice. Secondly, the application of emerging technologies such as big data, artificial intelligence, and blockchain in e-commerce and the digital transformation of small and medium-sized enterprises is becoming increasingly widespread. Future research can further delve into the integration models and innovative paths of these technologies with new productive forces, and explore how to better achieve the goal of e-commerce empowering the digital transformation of small and medium-sized enterprises through technological innovation. In addition, small and medium-sized enterprises are confronted with numerous risks and challenges during their digital transformation, such as data security risks, technology application risks, and market competition risks. Future research can enhance the identification, assessment, and response strategy research of these risk factors, providing more comprehensive risk management suggestions for the digital transformation of enterprises. Finally, from a macro perspective, the impact of e-commerce empowering the digital transformation of small and medium-sized enterprises driven by new quality productivity on regional economic structure, employment structure, and social equity, etc., is also worthy of in-depth exploration, so as to comprehensively assess its economic and social benefits and provide reference basis for the government to formulate regional development strategies and social policies.

ACKNOWLEDGMENT

This research is a phased achievement of the key project "Breaking the Cocoon Cube: Precise Operation Solution for Private Domain Traffic of Small and Medium-sized Enterprises" of Guilin University in the China International College Students Innovation Competition (2025).

CONFLICT OF INTEREST

The authors declare no conflicts of interest relevant to this study.

References

[1] Sun Z, Rao M, Yao B, et al. Driving enterprise new quality productivity: The role of big data tax collection[J]. International Review of Financial Analysis, 2025, 103: 104184.

[2] Sun C, Yu C. Study on enhancing consumers' purchase intention in E-commerce agricultural products[J]. British Food Journal, 2025.

[3] Yu R, Wu L, Li W, et al. Research on the impact of e-commerce on corporate ESG performance: disclosure mechanism, greenwashing behavior and substantive performance[J]. Environmental Research Letters, 2025, 20(5): 054007.

[4] Yu J, Yan Y, Meng L M, et al. The Impact of Blockchain Technology on Competing Suppliers on an E-commerce Platform[J]. Information & Management, 2025: 104160.

[5] Paraskevas J P, Pan X, Elking I, et al. Bridging the digital divide in online retailing: The effect of a strategic focus on e-commerce fulfillment offerings[J]. Production and Operations Management, 2025, 34(4): 744-759.

[6] Li Q, Zhu S, Choi T M, et al. Maintaining E-commerce supply chain viability: Addressing supply risks with a strategic live-streaming channel[J]. Omega, 2025, 133: 103276.

[7] Hardaker S. Platformizing structural policy instruments? Fostering (infrastructural) power in the context of Digital Free Trade Zones[J]. Geoforum, 2025, 160: 104218.