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THE RESEARCH ON THE PATH OF PROMOTING INDUSTRIAL INTEGRATION THROUGH E-COMMERCE DEVELOPMENT IN HANGZHOU UNDER THE CONTEXT OF THE DIGITAL ECONOMY

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Abstract:

The rapid advancement of digital technology has profoundly reshaped consumer behavior, and the growth of the digital economy is accelerating industrial digitization and cluster formation. As a leading e-commerce hub in China, Hangzhou is well-positioned to integrate the digital and real economies by capitalizing on its strengths in digital commerce. However, challenges such as spatial constraints in industrial integration, bottlenecks in key resource flows, and barriers to cross-regional cooperation persist. Drawing on insights from cases such as Guangzhou-Foshan metropolitan integration, Tianlifang-Linping Future Farm, and New York's Silicon Alley, this study proposes leveraging e-commerce as a catalyst for transformation. It highlights the role of e-commerce actors in refining demand alignment, resource distribution, and governance. Additionally, it emphasizes upgrading industrial, value, and benefit chains to build a resilient industrial ecosystem. The paper further recommends promoting urban-rural integration through core industry leadership, fostering resource sharing and cross-regional collaboration to enhance synergies between domestic and international trade, and coordinating living and production spaces through guided planning and talent mobility—all to support balanced and sustainable economic development.

Keyword:

Digital Economy, Industrial Integration, New E-commerce



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Introduction

Technological progress and industrial transformation are reshaping the global economic landscape. The rise of new industries and business models has generated demand for deeper industrial integration. The traditional single-industry-centered development model is shifting toward a multi-industry convergence approach, which has emerged as a new trend and driver of high-quality development in China's economy under its "new normal."

The new wave of information technology revolution has spurred the emergence of novel business models, while shifts in consumer behavior have accelerated the rapid rise of emerging e-commerce formats. This has injected fresh momentum into the digital transformation of industries and created opportunities for leapfrog development in less developed regions. With its high penetration capacity, e-commerce has progressively transformed traditional modes of production, distribution, and consumption. From this standpoint, e-commerce inherently supports the formation of China's new "dual circulation" development paradigm.

As the "E-commerce Capital", Hangzhou has seen a continuous increase in its online retail volume. In 2024, the total retail sales of goods achieved through public networks by above-designated-size retail units reached 245.7 billion yuan, an increase of 10.5% compared to the previous year. This accounted for 49.8% of total retail sales, an increase of 4.3 percentage points from the previous year (Hangzhou Municipal Bureau of, 2025). In foreign trade, in 2024, Hangzhou exported 58.0 billion yuan through the customs cross-border e-commerce platform, an increase of 5.8%. This accounted for 27.1% of the province's cross-border e-commerce exports (Hangzhou Municipal Bureau of Commerce, 2025), maintaining the largest scale in the province. At the same time, a series of issues such as monopoly, financial risks, and data security, as well as governance challenges, continue to intensify. Additionally, the development of the industry economy led by e-commerce highlights a structural imbalance between the growth of "soft" services in consumer life and the limited development of "hard" manufacturing in physical production. The contradiction between the strong growth of leading enterprises based on scale expansion and the weakness of small and medium-sized enterprises, as well as the imbalance in urban-rural and regional development, is also prominent. Specifically, the service sector accounts for as much as 70%, while the digitalization rate of the manufacturing industry is only 35%. Furthermore, the income gap between urban and rural areas has reached 1.64 times (Du & Guan, 2021; Xu, 2025).

Therefore, this study focuses on Hangzhou's "1248" Digital Economy Plan (Digital Economy Division, 2022), aiming to build a domestic and international "dual circulation" hub city. With the "Industrial Brain + Future Factory" as the foundation and city space as the scale, the study explores how to precisely promote e-commerce development, facilitate the balance between "soft" and "hard" industries, accelerate the "e-commerce going abroad" strategy, empower the integration of the primary, secondary, and tertiary industries, broaden the channels for shared

prosperity, and establish a mechanism and path for constructing a modern industrial system. Additionally, it lays the foundation for coordinated cross-regional standardized governance within the Yangtze River Delta and the Hangzhou Metropolitan Area.

Current Situation

Spatial Constraints on Urban Expansion

Hangzhou is situated in the core region of the Yangtze River Delta Economic Zone, boasting a strong foundation for regional collaboration, abundant natural resources, and a favorable cultural environment. However, under the dual pressures of population growth and economic transformation, the demand for urban expansion continues to rise. Land resources have emerged as a key constraint on Hangzhou's further development. Even with the adoption of the "vertical industrial expansion" model, which aims to optimize spatial use through vertical growth, limitations persist due to the necessity of preserving cultural heritage sites and accommodating long-term development needs. Height restrictions for indoor buildings and the overall insufficiency of land resources pose challenges (Yan, 2023). At the same time, Hangzhou faces a conflict between industrial manufacturing and the carrying capacity of its ecological environment. Currently, the reduction of green spaces and ongoing urban construction in central areas have contributed to noticeable changes in air quality, attracting considerable public attention and concern.

In addition, Hangzhou faces the common traffic pressure issues of large cities, and its "Three Mountains and Two Lakes" natural landscape presents inherent challenges in terms of transportation and maintenance. The city's regional mainline and convergence planning is complex, with operational contradictions such as congestion in the middle of transportation routes and underutilization at both ends. Therefore, in road traffic planning, it is essential to further synchronize considerations of industrial resources, talent demands, and traffic flow directions, as well as explore the possibility of coordination between these factors and the transportation system.

The Dilemma Of Smooth Flow Of Urban And Rural Elements

Hangzhou faces a coordination challenge in ensuring the smooth flow of urban and rural elements for integrated development. The urbanization rate of Hangzhou is 84.2%, with districts such as Shangcheng, Gongshu, and Binjiang reaching 100%. However, the degree of urban-rural integration in Hangzhou remains low. In 2024, the per capita disposable income of all residents in Hangzhou was 76,777 yuan, ranking first in the province, but its growth rate ranked last in the province. The per capita disposable income of rural residents was 50,805 yuan, resulting in an income disparity of 1.64 times (Hangzhou Municipal Bureau of Commerce, 2025). The characteristics of the urban-rural dual structure remain prominent, reflecting a "strong city- weak countryside" pattern. The core reason for this issue lies in the insufficient flow of resource elements, including "people", "land", "industry", and "capital". Under the backdrop of rapid urbanization, industrial reform, and consumption upgrading, the core of the city's tertiary industry has squeezed manufacturing to surrounding areas, expanding into rural areas. The urban fringe areas are fragmented and inefficient in land use (Wu, 2021). On one hand, there is a spatial contradiction between land demand and rural homestead and idle farmhouse resources, with land demand and supply unable to align (Li, 2018). On the other hand, the migration of rural populations to urban areas has resulted in an aging population in

rural regions and a lack of talent under expansion opportunities. Moreover, the spatial layout of rural areas in Hangzhou is dispersed, and the radiating and driving capacity of towns and cities is relatively weak. intensive interactions among population, goods, and information flows in the interspersed zones between “towns” and “rural areas”(Ren & Huang, 2020; Shi & Fan, 2024). There is a lack of supporting infrastructure for regulation and the transmission of resource elements, making it difficult to achieve the effective “fragmented development” of urban-rural integration.

Cross-Regional Restrictions on Industrial Chain Integration

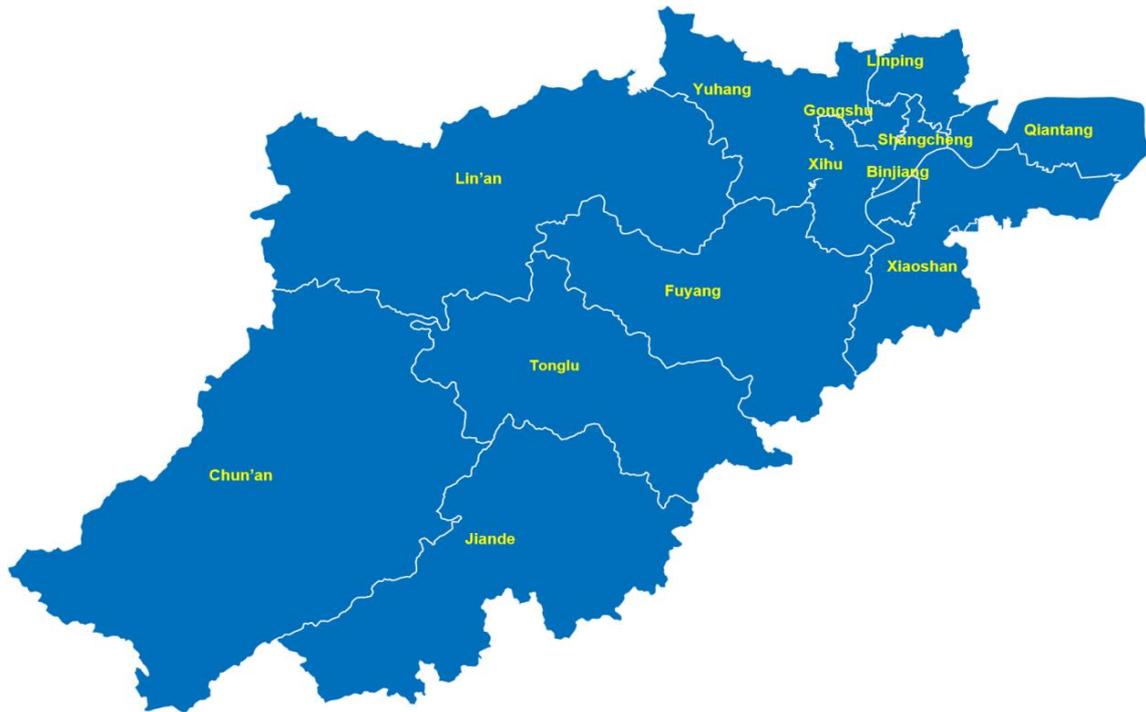


Figure 1: Zhejiang Province Map

Source: <http://ghzy.hangzhou.gov.cn/>

Table 1: Hangzhou Industry Spectrum

No.	District	Industries
1	Chun'an	Emerging industries: Big data and big finance, life sciences and healthcare, and the digital economy Strength industries: Large-scale tourism, large-scale healthcare, large-scale industry, and eco-friendly specialty agriculture
2	Jiande	Emerging industries: Big data and big finance, life sciences and healthcare, and the digital economy Strength industries: Large-scale tourism, large-scale healthcare, large-scale industry, and eco-friendly specialty agriculture
3	Lin'an	Emerging industries: high-end equipment, life sciences, integrated circuits, new energy, new materials Strength industries: wires and cables, composite decorative materials, optoelectronics

4	Tonglu	Main industries: Express delivery and logistics, visual intelligence, magnetic materials, new energy, life and health, fashion industry Future industries: Artificial intelligence and integrated circuits Specialty industries: Large-scale tourism
5	Fuyang	Key industries: Digital economy Signature industries: Optoelectronic communications, intelligent equipment, biomedicine, digital security, integrated circuits Future industries: Blockchain, quantum information, virtual reality
6	Yuhang	Digital Economy: Next-generation artificial intelligence, integrated circuits, next-generation communication technologies and smart terminals, critical foundational software, cybersecurity Future Industries: Blockchain, AI+life sciences and quantum information, future networks, brain-inspired computing initiatives, green and low-carbon technologies Others: Biotechnology and pharmaceuticals, intelligent manufacturing equipment
7	Xiaoshan	Leading industries: smart cars, new materials Emerging industries: life sciences, integrated circuits, smart equipment Future industries: blockchain, quantum information, next-generation mobile communications, additive manufacturing, new energy
8	Xihu	Digital Economy and Innovation: FinTech, Life Sciences, Aerospace Information, Intelligent Manufacturing Emerging Industries: 5G Industry, Quantum Information, Brain-Inspired Chips, Next-Generation Artificial Intelligence, and Other Cutting-Edge Industries Cultural and Creative Industries: Cultural Industry, Cultural Tourism Integration New industries: commerce and finance, digital economy, life sciences and health, cultural creativity Future industries: new energy, integrated circuit design, aerospace
9	Gongshu	Emerging industries: digital commerce and finance, life sciences and healthcare, cultural creativity Future industries: new energy, integrated circuit design, aerospace
10	Binjiang	Basic industries: intelligent computing, integrated circuits Advantageous industries: intelligent Internet of Things, digital communications, digital health, digital cultural and creative industries, digital finance, digital e-commerce, intelligent manufacturing Future industries: quantum information, next-generation communications technology, next-generation artificial intelligence, third-generation semiconductors, flexible electronics, cell science
11	Linping	Industrial clusters: high-end equipment manufacturing, life sciences and healthcare, fashion industry Specialty industries: industrial internet Future industries: 5G ecosystem, third-generation semiconductors, next-generation artificial intelligence
12	Shangcheng	Pillar industries: financial services, consumer services, intelligent manufacturing Specialty industries: professional services, healthcare

13	Qiantang	<p>Advanced manufacturing: semiconductors, life sciences, smart cars and smart equipment, aerospace, new materials</p> <p>Future industries: artificial intelligence, virtual reality, additive manufacturing, quantum information</p> <p>Modern service industries: R&D testing, e-commerce, tech finance, software and information, cultural tourism</p>
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Source: Compiled by the author

In 2024, Hangzhou's GDP reached 2.19 trillion yuan. From an industrial perspective, the service sector remains the dominant force, accounting for over 70% of GDP. The added value of the digital economy reached 630.7 billion yuan, and the industrial added value of large-scale enterprises was 440.9 billion yuan (Hangzhou Municipal Bureau of Statistics, 2025). However, the development of the manufacturing sector has underperformed. In pursuing industrial chain and cluster development, as well as the formation of industrial ecosystems, three main issues have emerged.

Strong Homogeneity in Industrial Cluster Planning

Industrial structural similarity refers to similar industrial structures. This homogeneity may generate agglomeration effects within regional industries, but some scholars argue that homogeneous competition can lead to administrative intervention under government-business partnerships, which may hinder the free flow of production factors and result in market fragmentation (Xia & Tian, 2024; Zhu et al., 2024). Within Zhejiang Province, many similar industries exist, including light industry manufacturing, textiles and apparel, and household appliances. While promoting the "same line, same quality, same standards" initiative for domestic and foreign trade products, one approach is to meet domestic and foreign demand by improving quality, enhancing markets, and expanding the variety of products. However, a poorly designed institutional frameworks and a lack of product diversity may also lead to excessive competition (Gu, 2024). In development planning, Hangzhou's nine industrial chains overlap entirely with Zhejiang Province's ten industrial chains, indicating that local characteristics remain to be explored.

Low Vertical Integration of Industries

Currently, in Hangzhou's key industries, such as electrical machinery and equipment manufacturing, and automobile manufacturing, new growth momentum has emerged with a significant rise in the production of new products like industrial robots, lithium-ion batteries, and solar cells. However, the three key drivers of Hangzhou's export growth—electric passenger vehicles, lithium-ion batteries, and solar cells—are part of many similar industries with substantial product diversity. Still, cross-regional upstream and downstream coordination within the industrial chain lacks depth, leading to small industrial scales, insufficient prominence of leading enterprises, and a lack of "anchor firms" (Chen, 2025). Consequently, integration is inadequate, preventing the realization of economies of scale and technological spillovers. Moreover, there is high external dependence on raw material supply, such as the lithium battery sector's reliance on upstream lithium ore, and the hydrogen energy field's dependence on hydrogen resources. Hangzhou faces shortages of key raw materials in developing integrated circuits and new energy vehicles.

Low Horizontal Cross-Regional Coordination of Industries

Currently, Hangzhou relies on Yunqi Town and collaborates with Shanghai and Jiangsu to develop Haina Town and Xuelang Town, jointly developing the industrial hub of the Yangtze River Delta's urban brain. They are promoting projects such as the Haining-Yuhang Cooperation Development Zone, the Jianggan-Anji Industrial Park, and the Binjiang "Zhuji Island". However, the industrial development directions within different districts of Hangzhou vary (Liu, 2024). For instance, Shangcheng District focuses on financial services and consumer services, Yuhang District specializes in artificial intelligence, integrated circuits, and key basic software, and Jiande City is focused on the general aviation industry, life and health, tourism, and water industries. There are relatively few cross-regional collaborative projects based on core and advantageous industries, and targeted collaboration remains underdeveloped. Furthermore, Hangzhou's local automobile brand, Geely, has a local supply rate of only 50%, which is lower than Guangzhou's 80% and far below the 70% international average. There is also a lack of policy-supported horizontal supply chain integration with local automobile parts enterprises, such as those in Taizhou.

Innovative Practices

Regional Collaboration and Co-construction of Urban and Rural Areas

The economic development of the Bay Area, represented by the San Francisco (Silicon Valley-San Francisco-Oakland) region, provides valuable lessons for Hangzhou's development. The San Francisco Bay Area currently consists of four major economic sectors: technological innovation (Silicon Valley in the South Bay), corporate headquarters and business services (San Francisco), port logistics and international trade (Oakland in the East Bay), and tourism and leisure industries (the North Bay's farmland area, Golden Gate Bridge in San Francisco, and Silicon Valley). In 2024, the "Bay Area Planning 2050+" initiative was proposed, focusing on four key areas: economy, environment, housing, and transportation. Economically, the plan explores universal basic income to address economic inequality; environmentally, it aims to retrofitting existing buildings for energy efficiency and sustainability and protect and improve land, air, and water resources in Bay Area communities; in housing, it focuses on affordable rental housing and repurposing vacant commercial spaces (e.g., shopping centers, office parks) into housing for families with varying income levels; and in transportation, strategies include highway congestion pricing, parking fees, traffic system transformation, and optimization of transportation networks to alleviate traffic pressure.

In addition, in China, the integration of cities such as Guangzhou-Foshan and Xi'an-Xianyang provides valuable insights for collaborative cross-regional construction, serving as national examples of comprehensive regional integration. The Guangzhou-Foshan integration is based on cultural similarities, economic development needs, and the development strategy of the Guangdong-Hong Kong-Macau Greater Bay Area. Foshan, driven by market forces and private enterprises, drives the development of its districts, with the secondary industry accounting for over 60% of GDP. In contrast, Guangzhou's economy is state led, with large state-owned enterprises as key drivers, with progress fueled by foreign investment. The tertiary industry contributes over 60% of its GDP.

The Guangzhou-Foshan integration has gone through three stages: infrastructure interconnection, bidirectional smooth flow of production factors, and integrated urban living. The policy guidance spans three phases: before 2008, the concept of Guangzhou-Foshan integration was driven by market forces and entered the government's decision-making scope; by the end of 2008, the "Pearl River Delta Reform and Development Planning Outline" elevated the integration of Guangzhou and Foshan to a strategic level. This was followed by infrastructure construction, the improvement of institutional mechanisms, the development of an industrial coordination system, environmental protection policies, and the establishment of a "1+4" high-quality development integration pilot zone. By the end of 2021, the "Guangzhou-Foshan Full-Region Integration 14th Five-Year Development Plan" further advanced the integration. As a result, Guangzhou and Foshan have become a clear core-periphery spatial structure, with technological and industrial transfer from Guangzhou to Foshan, and complementary industry chain layouts such as the automobile industry in Guangzhou and auto parts in Foshan. Overall, the realization of Guangzhou-Foshan integration is attributed to the geographical adjacency, strong economic ties, and proactive government planning. Key factors include: smooth transportation, with the Guangzhou-Foshan subway supporting closely integrated daily commuting and work-life flows; economic integration, with the complementarity between Foshan's manufacturing and high-tech industries and Guangzhou's economic development promoting resource optimization and efficient utilization; and strategic alignment, with the integration occurring under major strategies like the Belt and Road Initiative and the Guangdong-Hong Kong-Macau Greater Bay Area, continuously optimizing regional economic layouts and driving high-quality development.

Considering the geographic distance in the context of Hangzhou's metropolitan area development, Hangzhou's city center is 130 kilometers from Shaoxing's city center, with distinct urban characteristics; it is 80 kilometers from Jiaxing's city center (with Jiaxing being 98.31 kilometers from Shanghai's city center); and over 80 kilometers from Huzhou's city center, all of which significantly exceed the 20 km and 25 km distances between Guangzhou and Foshan. This creates a cross-regional barrier in terms of geography. At the same time, there is potential for complementary industrial collaboration between the regions. Economically, cross-regional co-construction can alleviate Hangzhou's high-end manufacturing "an imbalanced industrial structure with a weak manufacturing foundation" issue and achieve economies of scale. Overall, based on Hangzhou's development characteristics and goals, the focus should be on innovation and transformation, utilizing the e-commerce sector's leadership role to reduce geographical barriers, and within the framework of regional collaboration in the Yangtze River Delta, creating a metropolitan area with Hangzhou's unique features.

Integration and Isomorphism of Digital and Real Industries

The Tianlifang·Linping Future Farm is located at the intersection of the main urban area of Hangzhou's eastern region. In 2021, Linping District focused on the fragmentation of farmland and the potential of depopulated villages. The district implemented a unified relocation plan for villages such as Gejiache Village, Fangqiao Village, Chaoyang Village, Yonghe Village, and Yongxi Village in the Qiaosi Subdistrict. The area underwent integrated land consolidation, including the revitalization of farmland, restoration of 440 acres of arable land, reclamation of 835 acres of construction land, and the expansion of 2,300 acres of industrial space. This ultimately resulted in nearly 5,000 acres of Future Farm. The development project emphasizes the integration of permanent basic farmland, high-standard farmland, and grain functional areas, creating continuous land by connecting road networks, water systems, and farmland parcels.

The project also includes the construction of scenic corridors, rural visitor lounges, and walking greenways. This initiative consolidates the red line for food security, forms a tourism experience network with fields of canola flowers and lush tea gardens, and introduces supplementary educational research bases, cultural tourism product design, and live streaming. This not only revitalizes land resources but also provides opportunities for institutional reform opportunities. Additionally, Linping District has become a hub for the fashion and digital industries, with the construction of Yishang Town, which in 2023 hosted over 2,700 companies and 1,400 businesses in the Computing Power Town, achieving annual revenues of 32.99 billion yuan and 3.87 billion yuan, respectively.

Science and Technology Innovation Cluster with Silicon Alley Renewal

The concept of Silicon Alley originated in New York as an integrated urban regeneration model. Initially centered around the Iron Building at the intersection of Fifth Avenue and Broadway in Manhattan's downtown, the model later expanded to the DUMBO area in Brooklyn and extended into Manhattan's middle and lower parts. Silicon Alley has grown into a loosely defined district, aggregating a large number of digital media, information technology, and fintech firms, and has become a hub for emerging technologies and innovative applications. It represents a common model for utilizing existing space in urban centers to develop tech enterprises.

The development approach of Silicon Alley focuses on several key aspects. First, it prioritizes human-centered development, shifting the logic from "industry-people-city" to "city-people-industry." It aims to optimize the living and working experiences of intellectuals, addressing both basic survival needs such as affordable housing and subsidies and the more nuanced "urban lifestyle appeal" of talent, such as innovative technology experiences in new retail and high-end medical services malls, similar to Amazon Go in Seattle or the SuXing Living Store in Chengdu. Additionally, the model takes into account the long-term developmental needs of talent and cities, creating pathways that attract talent and integrate city resources into a tech ecosystem. It also provides a variety of diverse urban contexts and density configurations that support fostering technological and industrial innovation, leading to the creation of new applications and products.

Silicon Alley has successfully utilized existing infrastructure to create four distinct types of spaces: tech research and development spaces primarily for educational and R&D institutions; experimental manufacturing zones focusing on the revival of the manufacturing sector; localized micro-production units empowered by technology; and residential spaces focused on providing comfortable and livable service environments. Silicon Alley's success stems from three factors: first, mature digital technologies that enable integrated solutions promoting business, fashion, and public service development; second, the transformation of old office buildings and factories to repurpose underutilized space; and third, leveraging the cultural charm of old cities to offer diverse services and create high-quality urban communities.

For Hangzhou, the Silicon Alley model offers valuable insights. Like New York, Hangzhou has a high quality of life and well-developed digital infrastructure, renowned for its strong civic engagement and philanthropic tradition, media, entertainment, leisure, and fashion, with a rich cultural foundation. However, Hangzhou also faces similar challenges: the contradiction between expanding urban industries and limited space, the integration of new technologies with old infrastructure, and balancing pursuing quality-driven growth amid economic decelerations.

The Silicon Alley model provides a new reference for regenerating urban vibrancy, offering a pathway to harmonize these challenges and foster innovation in Hangzhou's future urban development.

Pathways for E-commerce Integration and Participation

New technologies, new models, and new business formats empower industrial upgrades. Hangzhou has a solid foundation for industrial upgrading, urban-rural integration, and collaborative industrial cluster development. Under the development goals of becoming a "New E-commerce Capital", Hangzhou has introduced the "Several Opinions on Promoting High-Quality Development of New E-commerce in Hangzhou". As of 2023, Hangzhou hosted 128 e-commerce platforms and more than 12.5 million platform-based merchants, fostering 39 "unicorn" companies and 317 "emerging unicorn candidates" companies. Additionally, the number of cross-border sellers reached 63,463, forming 16 cross-border e-commerce industrial clusters, laying a solid foundation for integrating new e-commerce with the real economy, promoting the flow of market elements, and stimulating consumer vitality.

Transform Technological Paradigms and Extend Industrial Chains

E-commerce transcends temporal and spatial constraints, connecting high-quality products, leading enterprises, and consumer market demands within the city, driving synchronous growth across the industrial chain and diversification into related sectors. Firstly, e-commerce expands upstream into production and manufacturing, where market demand is fed back to guide product development, manufacturing, storage, and sales, promoting the development of owned/private-label brands and products, and enhancing supply chain integration. Secondly, it extends downstream by improving logistics and after-sales services, strengthening the formation of self-built logistics networks, such as installation and maintenance services. Additionally, e-commerce encourages the expansion of horizontal business areas, integrating industries across sectors and channels, such as financial services, digital content, and cloud computing. This leads to the interaction of online and offline resources, achieving mutual reinforcement of "platform + industry" and connecting urban-rural consumption logistics. It leverages the advantages of physical economies in product channels, logistics distribution, business management, and brand building to form a "convenience store + express delivery + supply chain + community services" model, promoting the free flow of elements and deepening market penetration. Lastly, China's cross-border e-commerce has entered a new stage of deepening long-term development, with e-commerce empowering small and medium-sized enterprises, as well as underserved groups, in both local and global market participation.

Building Symbiotic Networks and Enhancing Value Chains

The process of enhancing the value chain involves optimizing each step from product procurement to customer after-sales services, aiming to increase efficiency, reduce costs, and improve the customer experience. Overall, e-commerce optimizes supply chain management by dynamically managing inventory, pricing, and supply times, connecting supply and demand networks. It also improves customer experience by enhancing personalized recommendations and rapid search, introducing 24/7 customer service and intelligent robots to improve pre-sale and after-sale service quality. Moreover, data-driven marketing and sales are promoted to achieve precise marketing and dynamic pricing, increasing conversion rates and customer retention, thus enhancing profitability. E-commerce businesses also leverage data for

innovation, integrating end-to-end automation solutions to improve operational efficiency and using blockchain technology to enhance supply chain transparency and traceability, thus increasing customer trust. In summary, e-commerce enterprises can enhance efficiency at each stage of their value chain, create more customer value, and secure a competitive edge.

Evolve Organizational Dynamics and Improve Benefit Chains

The operation of e-commerce businesses enhances the equitable distribution and alignment of stakeholder interests. New e-commerce optimizes supplier relationships, establishes fair pricing mechanisms, and ensures long-term cooperation and mutually beneficial outcomes. It enhances consumer protection by ensuring returns and after-sales services, expanding the supply of personalized services and experiences. It also fosters cooperation between platforms and merchants, promoting benefit-sharing mechanisms and incentivizing product supply, which is beneficial for supporting and training small and medium-sized merchants. Furthermore, new e-commerce platforms improve transparency and refine platform rules, ensuring policy optimization and strengthening the supervision of unfair competition within the platform. Overall, e-commerce enterprises can better coordinate the interests of all parties, creating a stable and efficient system for value distribution that ensures long-term competitive advantage in the market.

Create Multi-Cross Collaborative Chains and Build Industrial Ecosystems

Focusing on the cultivation of advanced manufacturing clusters in Hangzhou, the city develops its industrial layout according to five core urban pillar industries: culture, tourism and leisure, financial services, life and health, and high-end equipment manufacturing. Additionally, three emerging strategic industries—artificial intelligence, cloud computing and big data, and information software—are strategically fostered, alongside the development of “nine iconic industrial chains” in visual intelligence and digital security, biomedicine and health, smart computing, integrated circuits, network communication, energy-saving and new energy vehicles, smart homes, smart equipment, and modern textiles and fashion. By implementing the targeted policy packages tailored to specific industries approach, Hangzhou enhances the overall industrial level and establishes the “Zhejiang Manufacturing” and “Hangzhou Manufacturing” brands. New e-commerce, through platform technology development and data-driven ecosystems, provides integrated solutions that connect third-party merchants, suppliers, logistics service providers, and payment platforms. This facilitates industrial chain integration, value addition, and clustering, offering open APIs and development tools to enrich platform functions and drive the construction of an industrial ecosystem.

Policy Recommendations

Core Industries Driving Distinctive Industries, Urban Radiation to Rural Areas

Strengthen the integration of e-commerce with manufacturing and consider urban-rural collaboration alongside industrial cluster planning. Continue to advance the initiative of “attracting major investments and strengthening key enterprises” by guiding competitive companies to take part in provincial-level development plans. In the process of industrial advancement, identify points of disconnection, weaknesses, and low-value-added sectors, and increase the attraction of key projects.

Firstly, clarify the geographical location, natural resources, dominant industries, supporting infrastructure, and developmental constraints within Hangzhou's sectors, ensuring the implementation of development roles and mentorship.

Secondly, leverage the advantages of e-commerce to effectively allocate resources, linking urban and rural resources, especially by awakening the "underutilized assets" in rural areas and promoting the circulation of idle elements into the city. Urban industrial development will lead to entrepreneurial and employment opportunities in rural areas, narrowing the urban-rural divide, reducing external transaction costs, and improving the efficiency of spatial operations. Thirdly, for industrial clusters, focus on the restructuring and differentiation of similar industries, further enhancing market segmentation and avoiding harmful competition.

Coordinate Urban Resources and Link Domestic Trade with Foreign Trade

With the aim of enhancing Hangzhou's competitiveness, becoming a domestic and international hub city supporting dual circulation (domestic and international economic flows), and developing as a regional center city, strengthen the guidance of new e-commerce data and integrate the upstream and downstream industries, resources, and flows of production factors and commodities, coordinating with surrounding cities for joint development.

Within the province, strengthen integration with Hangzhou's planning by utilizing the internet, integrated circuits, and petrochemical manufacturing industries to create a strong core for urban cluster development. Expand the Hangzhou-Shaoxing integrated urban area to serve as a demonstration model and deepen the construction of the Hangzhou- Jiaxing- Huzhou-Shaoxing metropolitan area. Simultaneously link Ningbo, facilitating the "Hangzhou- Ningbo" dual-city development and advancing "Hangzhou-Shaoxing-Ningbo Integration".

Utilize the advantages of cross-border e-commerce and strengthen connections with Western and Southern China regions, inviting service providers to join cross-border e-commerce networks. Plan and layout industrial cooperation and resource exchanges.

Improve the circulation system within the port area by constructing an intelligent, collaborative digital platform, promoting the development of cross-border cloud negotiations, digital exhibitions, and other high-value, sustainable new business formats in international trade. Actively promotes the integration of domestic and international trade.

Project Planning and Talent Flow, Synchronizing Life and Production

Talent is an indispensable guarantee for development. In rapid urbanization, rural populations consist mainly of two categories: those migrating to cities and those returning to rural areas. On one hand, efforts should be made to settle the urban immigrants, freeing up space for large-scale agricultural operations, and communicating the need for industrial cluster construction. Expanding the scope of industrial resource allocation will ensure the optimal use of land. On the other hand, coordinate rural assets based on suitability, utilizing surplus facilities in rural areas to calculate service radii, and convert them into multifunctional spaces for cultural, medical, and elderly care services. Establish targeted production, living, and cultural tourism industries and supply chains, encouraging new-generation farmers and agri-entrepreneurs to bring projects, plans, and innovations. This will follow a model that integrates projects, locations, and talent to form an integrated development and supporting construction, promoting

leisure agriculture, rural homestays, agricultural product processing, and rural e-commerce. This will enhance the return flow of urban technology, elements, and resources, revitalizing rural communities.

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